The Collection and Dissemination of Information by Automotive Firms

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Corporate learning is an emerging concern among corporate strategists. Corporate learning					
is the process of collecting internal and external information: deciphering, coding, prioritizing,					
disseminating, using, and storing. Within the automotive industry, market research, corporate					
strategy, public relations, finance, and corporate libraries are among the largest users and disseminators of corporate information.					
disseminators of corporate information.					
The objective of this project is to uncover the resources, methods, and strategies					
automotive firms are using to collect and disseminate strategic, corporate information. The scope					
of this project limits our research to select personal interviews. This report presents a wide range					
of views on automotive competitive intelligence (CI) gathering. The objective of this report is to					
profile the diverse needs of CI within the automotive industry, not to outline the details of any one					
aspect, such as benchmarking.					
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The Collection and Dissemination of Information by Automotive Firms

Project Objective

Success in the automotive industry requires effective integration of information across thousands of employees in marketing, design, engineering, and manufacturing; thousands of suppliers; dozens of regulatory agencies; thousands of dealers; and the marshaling of the numerous other resources necessary to bring a product from concept to market and to service that product over its life.

Corporate learning is an emerging concern among corporate strategists. Corporate learning is the process of acquiring and exploiting internal and external information. It involves the complex process of collecting, deciphering, coding, storing, prioritizing, disseminating, retrieving, and using information. The increased attention on corporate learning has been reinforced by strategists who believe that companies that act best on information may gain a competitive advantage. Within the automotive industry, market research, corporate strategy, public relations, finance, and corporate libraries are among the major users and disseminators of corporate information.

PR Newswire, a disseminator of electronic corporate news and communications to the world's news media, sponsored this project to better understand the information needs of its automotive clients. Because of increased demands for their Today's Headlines service, PR Newswire sought to uncover the resources, methods, and strategies that automotive firms are using to collect and disseminate strategic corporate information. The scope of this project limits our research to select personal interviews on one aspect of corporate learning: the gathering of automotive competitive intelligence (CI). The objective of the report is to broadly profile the diverse needs of CI within the automotive industry, rather than to outline the details of any one method or approach (for example, benchmarking). The report reflects the CI work of the specific persons interviewed. Identified activities, methods, and resource needs solely reflect our nine interviews. Descriptions, while probably representative of the industry, are not based on a representative survey.

Literature on CI is increasing and there are even society journals on the subject. However, academic models of what should be and the real world practice of what is are quite different. This report focuses on the pragmatic real world.

Participant Profile

We spoke with fourteen persons involved in automotive CI activities over the course of nine interviews. The automotive industry's diversity of corporate participants and variety of intelligence-gathering activities hinder the creation of a true representative sample base. Therefore, we interviewed representatives from each of the Big Three vehicle manufacturers, two international component suppliers, three service groups used by the vehicle manufacturers to gather marketing and governmental policy information, and one foreign quasi-governmental intelligence group. This sample base creates a broad profile of automotive activities from consumer research and competitive analysis to manufacturing and marketing. We also performed a literature search to provide additional information.

We attempted to tap into the broad range of intelligence-gathering activities. To achieve this, we identified seven specific activities: competitive analysis, benchmarking, corporate libraries, technology assessment, corporate finance, advertising and public relations, and governmental affairs. All participants were knowledgeable about their activities or company's CI efforts, and have been in their positions or with their companies for at least three years. However, respondents representing the foreign commercial activity, who rotate on a one-to-two-year basis, obviously had less experience with their current employer.

History and Development of the Corporate Intelligence Activity

As with any corporate endeavor, top management support and guidance is a must. Three of the nine interviews specifically identified the company's or operating division's president as the person who initiated the CI group. In each case, the president keeps a close relationship with the CI group. The interviewees suggest that top managers with international experience better understand the need for a strong CI activity in every department. While we cannot specifically identify why this is, interviewees were quick to highlight executives' foreign joint venture or European experiences as a reason for these executives' understanding of the role of CI in decision making support.

The majority of the CI activities have been emphasized, or even formed, within the last five years. Improved CI capabilities stem from several drivers. First, our interviewees look back to the wake up calls—record financial losses, market share declines, and international competition—of the 1980s as the impetus to look outside company walls for product and manufacturing technologies and to track competitor movement. In response, companies are more

interested in tracking productivity, quality, and customer responsiveness benchmarks; competitive product offerings; and technology innovation. CI activities provide such base information. Each interview suggested that American companies do realize the need to learn beyond their walls.

Second, the trend toward decentralization of decision making and authority left many companies without a function that integrates broad operating divisions. Today, top management has an increased understanding that complex problem solving requires a multi-disciplinary approach, involving cost accounting, marketing, finance, human relations, and other specialties. Moreover, there are synergistic benefits available by leveraging diverse operations (such as credit operations supporting a company's manufacturing side). CI activities force the integration of a broad range of disciplines and functions. Executives charged to perform CI gathering cut across internal boundaries by emphasizing internal and external learning, focusing on the customer, and improving business systems. As one interviewee noted, "I have little authority, but I have a broad understanding of our company."

As platform teams and other working teams develop, the traditional functional chimneys have begun to break down, and executives are demanding decision making support from groups outside their own staffs. For example, the corporate library we visited has experienced a dramatic change in the information requests it receives. In the past, the majority of the library's requests concerned regulatory and certification matters. Today, the library must be able to handle a wide range of business-strategy inquiries from the platform engineering teams including supplier data, quality analysis, economics, marketing, alternative materials, and governmental affairs.

For large global firms, integration of information across geographic boundaries is important. CI at a corporate staff level cuts across these lines of geographic demarcation. One component firm used the example of a competitor who increased market share throughout Europe. Knowledge of the competitor's methods might have been kept from Latin and North American operations—by default, not by choice—had it not been for the staff of the CI activity, which identified this threat and made the information available to its North American divisional management.

Third, our interviews indicated continuous improvement strategies must be supported by continuous learning. This includes efforts to improve quality, productivity, business systems, and customer responsiveness. In this regard, a CI activity creates a mechanism for gathering and

disseminating information, identifying consumer-required value-added, and the best practices to achieve these requirements. Strong CI activities also question corporate strategy and support its reformulation in changing circumstances. Companies are coming to understand that competitive positioning requires a deeper awareness of competitors' operating history and philosophy. There is a heightened interest particularly in understanding competitors from foreign cultures. A deeper understanding includes insight into why these competitors are competitive, and how they plan to stay competitive. Tracking management practices is as important as product introductions.

Without question, Detroit's wave of benchmarking interest—from product to business systems—has increased the importance of CI gathering. An effective benchmarking strategy requires many resources provided by company-wide CI activities. These resources include research methodologies, maintenance of industry contacts, identification of emerging trends, data analysis, and dissemination of strategic information.

Group Structure

The internal groups we investigated were based within central corporate staffs. It appears that a central corporate staff location is preferred for CI staffs. This strategy has its roots in the creation of the groups, as well as the view that a CI activity is a service function. Groups started and supported by corporate staff officers naturally found homes located in central, rather than divisional, staffs. A corporate staff location for CI functions may be more appropriate than an operating-division location. The interviewees support this reasoning based upon the limited time and financial resources available at the divisions, the broader vision and information contacts at corporate headquarters, and corporate staff capability to monitor and direct strategy continuously. Concentrating CI activities in one corporate staff location leverages information resources, research skills, and financial support.

The groups we interviewed are small in size, with one or two central persons who depend upon additional two to four staff persons. These groups also have identified internal and external groups of persons that they call upon regularly for information, contacts, and guidance. Structures range from the large supplier which has persons responsible for CI in each operating division, to the smaller supplier which has one central staff function. The benchmarking and competitive analysis groups remain small and effective by leveraging operating division staffs and resources. The corporate library has a larger staff, but supports a wider mission than simply CI.

The CI activity structure in these companies is influenced by reporting lines, request flows, and corporate policy. Three examples show the range of internal reporting mechanisms. First, within the smaller of the two suppliers we interviewed, the executive in charge of CI projects reports directly to the automotive group's president. Second, while not a direct report, the vehicle manufacturer's competitive analysis group receives a continual flow of requests from the company president. This establishes an informal reporting line and reinforces this CI group's importance. Third, the vehicle manufacturer's benchmarking group has become integrated into every operating division due to the corporate policy that financing requests must be accompanied by a benchmarking study to support the cost/benefit advantages of the project. This requirement forces the benchmarking group to be an advisory group to the operating divisions, rather than the actual benchmark study performer.

As staff operations, the CI groups we interviewed are supported by internal transfer payments from operating divisions. Annual budgets are prepared for a normalized activity level. Special project funding may come from corporate staff or operating division budgets. Budget funding levels are a direct indicator of the operating groups' satisfaction with corporate staff "burden."

The external service groups report up through their own organizational structures. Each of these groups we spoke with reports to its clients' senior management. While there is typically one primary contact, these firms may perform work for several staffs.

CI Employees Skills and Characteristics

While it can be argued that every employee must be involved with a company's CI activity, CI practitioners seem to have several special characteristics. First, they are information hungry. The people we interviewed have a natural thirst for knowledge. However, they are not always interested in knowing the exact details as much as in how to find information. Second, they show a genuine interest in teaching. The benchmarking group is chartered with an educational objective: to document and teach a benchmarking methodology. But other groups also have a refreshing attitude towards encouraging the understanding of competitive analysis and driving CI activities to the lowest organizational level. The basic thought is that involving divisional personnel in strategic analysis activities reinforces corporate learning and implements corporate plans.

Third, CI practitioners do not have a selfish attitude about handling information. Perhaps because their performance is judged on knowledge transfer, the persons we interviewed were

genuinely energized by answering questions, connecting persons together, and contributing to corporate strategy. Good CI practitioners are not protective about information. As the corporate librarian states, "I don't care if a journal or data series is in economics or accounting. I just want to know where it is and what it is so that I may refer people to the information."

The corporate librarian stresses the importance of having a research staff that can understand the engineer's technical language. This is the first step in creating trust between the information specialists and the engineering community. She identified approximately 5 percent of her company's employees as information leaders, those who are information hungry and use the library's resources most regularly. The other 95 percent use the library infrequently. By understanding an engineer's language, the research staff establishes a level of credibility. This knowledge also assists in narrowing down research topics and speeding up search activities.

There is a general feeling that younger employees are more at ease using CD-ROM databases and other computer-based services. In the development of all these systems, ease of use is essential. The general fear of technology creates another need for a well-trained staff. The staff may act as an interface between the electronic data bases and the requester of information. The staff may also assist in the use of electronic terminals.

CI Groups' Responsibilities and Activity

It is important to differentiate CI-related work from general task-force projects. CI work tracks issues, trends, and competitors over a period of time. There may not be an end date to this monitoring. An effective task force identifies an issue and disbands after developing a solution to the problem at hand. The longer time horizon of CI activities allows for increased understanding of a topic, identification of competitor strategy deviations, and reinforcement of corporate learning. As one practitioner noted, "We are constantly looking for soft data to fill in the known data points and explain 'what does it mean?'" CI-related work seeks to complete the information puzzle for management decision making support.

Our interviewees are "jacks-of-all-trades." They respond to a wide range of questions and requests presented by senior corporate, division, and operations management. One respondent noted, "The scope of my responsibilities has become virtually unlimited." While some executives responsible for CI gathering have narrower responsibilities—focused on product technology or consumer marketing issues, for example—most are required to respond to a wide range of business environment inquiries. Considering all of our interviews, recent projects have included developing specific competitor profiles; new product market analysis; technology

transfer, health care cost estimations; acquisition, merger, and divestiture analysis; environmental and consumerism trend forecasting; and management information system strategies.

Specific CI questions companies have attempted to answer include:

- which of my competitors have technology skunk works and what product technologies are they interested in?
- how should my company respond to competitor moves in the Pacific Rim?
- how will new technologies such as artificial intelligence and fuzzy logic provide consumer value and product differentiation?
- what are my competitors' market shares and R&D spending by major electronic product lines?
- what technical information has been written about a specific competitors' passive occupant safety restraint system?

We found two main strategies for defining CI areas of responsibilities: no specific and well defined boundaries. Operating a CI activity without specific operating boundaries for staff may benefit cross-functional learning. This type of CI activity becomes an information clearing house, gathering information from various operating units and performing research across a wide range of topics. The interviewees operating under this strategy appeared to be willing to take on each project with an equal amount of enthusiasm.

However, it appears that this may become overwhelming with a range of projects from identifying health care costs to a major competitor's cost of capital. Respondents having these broad responsibilities know that they must leverage their own expertise with others. However, we wonder if an executive's educational and employment background and general comfort level might prejudice his or her efforts towards issues they know well. Therefore, a critical issue might go less than well explored because of a lack of understanding of the true complexities or competitive implications.

Rather than developing a broad objective approach or charge, the second strategy breaks CI activities into discrete tasks and areas. One supplier company focuses intelligence gathering by designating a CI person for each business unit. This focuses CI by core products, manufacturing technologies, and competitors. The foreign government agency ensures that a wide range of topics are tracked by frequently rotating personnel between parent companies and the U.S.-based offices. These rotations are given careful consideration and provide continually diverse human resources.

While its CI group takes on a wide range of investigations, one vehicle manufacturer CI group defines its objective as a conduit of information rather than a primary originator of

research. That is, competitive analysis' job is to know who the internal and external specialists are, not to perform specialized research or to archive information. Of course, this requires the staff to completely understand the questions being asked and the answers being sought.

The nonlibrary CI groups do not want to evolve into formal library operations. They provide some archiving of information and opportunities for corporate learning, but they understand the human and financial resource commitment required to establish a corporate library. The internal groups view themselves as a boundary agent, collecting information from inside and outside the organization, packaging and analyzing this material, and disseminating. They do not want to control information, but they want to know where internal information resides. These CI activities provide value-added through analysis and input into developing corporate strategy.

The major focus of CI groups is to operate a clearinghouse—matching the inquiring person with an existing information resource or providing benchmarking support. There is a keen sensitivity to the need to deliver existing statistical data bases, market research reports, industry analyses, etc., rather than reinventing the wheel. When existing sources cannot be found, projects are initiated.

The most successful CI activities go beyond simple information collection and clearinghouse activities. CI groups believe their greatest value-added activity is providing analysis and interpreting the implications of the discovered information. An additional benefit that companies see from long-term projects is the promotion of internal learning and networking within their own company. Several interviewees mentioned the breaking down of "we-they" barriers as they pursued projects focused on their competition. External groups use their analysis as an opportunity to challenge top management and play devil's advocate.

While not related to specific project activity, another role frequently played by our interviewees is as the company's point person for various professional societies. This provides opportunities to identify key contacts for gathering information. Also, involvement in professional groups provides ideas on emerging trends and identification of competitive threats.

Internal and external CI groups are used for corporate strategy development. Internal CI executives identify objectives including understanding external business environment forces, interpreting trends, challenging top management thinking, and disseminating information. They are not passive corporate participants; their action-oriented objectives are directed toward

making change. While the location of a CI activity may be within a corporate staff, interviewees agree that the functional units must be intimately involved with the CI activity in order to implement strategy effectively.

The external groups noted that their opinions may be controversial in top management circles. However, it is this form of controversy that challenges top management thinking and contributes to better strategy formulation. Our interviews were not extensive enough to estimate the extent that consulting firms and other external agents are used by the Big Three and suppliers. However, the use of exclusive agents may provide better decision making support because the agent has a stronger self-interest in its client's success. By exclusive agent we mean advertising agencies, who by law are required to serve only one client in an industry, and consulting firms, who by strategy build their practice around a limited list of clients. Of course there is a potential downside to this strategy. A firm may be so exclusive that it becomes myopic. To protect its contract a firm may recycle executive opinion back to the manufacturer so that nothing unpleasant is discussed.

Benchmarking is another activity that typically falls under the CI umbrella. Benchmarking provides a specific activity that companies may use to justify and develop CI resources. Manufacturers and suppliers are pursuing a wide range of benchmarking studies. Their primary objective is to increase customer responsiveness and value-added without increasing operating costs. The vehicle manufacturer benchmarking group we spoke to is presently engaged in developing a resource manual on benchmarking methods and resources. This central staff group is responsible for supporting a broad range of benchmarking activities throughout the functional departments.

Project Initiation

The internal CI groups believe that they are well known throughout their companies. Our interviewees are considered a "first call" by executives needing information. The first call identification is developed through informal networks and presentations of research findings. Typically, they are called upon to support broad corporate or divisional strategy development. Product- and market-specific information gathering takes place primarily at the divisional level.

The groups we targeted spend most of their time responding to specific requests for information rather than continuously monitoring and reporting on the business environment. One group estimates that 85 percent of its time is dedicated to special requests. Although this indicates internal-customer responsiveness, we believe these reactionary responses may arrive

too late for some competitive challenges. A supplier CI group receives approximately 60 percent of its requests from divisional activities and 40 percent from top management.

Except for the corporate library and governmental agency, our interviewees indicated that most research requests are unstructured. The corporate library uses a formal request form. Persons fill this form out requesting topical or specific information. Many times people will request the widest range of information to conceal the true request, for proprietary reasons, or outright personal uncertainty, for career reasons. A research librarian follows up many of these requests with a personal interview to focus the research question. The library director stressed the importance of establishing trust between the information user and provider.

The governmental agency uses a market-base approach to develop and allocate resources for its research projects. Projects having identified funding from foundations or corporate research purchasers for reports and newsletters are given priority. This process helps ensure that the research projects have an applied focus.

The internal, nonlibrary operations handle requests through phone calls, electronic mail, and internal memos. Priorities are typically assigned according to the organizational level of the requesting party and the estimated financial benefit for the company. This method offers the risk of internal political pressure entering into the project evaluation criteria. While unfortunate, CI executives do respond to the political realities of their organizations.

Because of the specialized nature of the requests, many projects initially are one-time efforts. However, project offshoots and more probing studies keep many topics alive. A short-term effort might be one day spent tracking down an internal source of information. A long-term request might be a one-year benchmarking exercise. An inherent goal of CI projects is to weave individual threads of information from wide sources into a fabric of knowledge. To do this, some CI projects cannot simply end. Corporate learning continues as issue monitoring develops. An external group provides this type of monitoring through regular memos updating previous research.

Relative to the internal groups, the external CI groups are better self-starters. This sometimes makes them more proactive than internal groups in identifying emerging market trends. The advertising and public policy agencies identify issues and consumer and political trends through extensive networking. Electronic bulletin boards are a vital part of this networking (there are more than 1,000 public electronic bulletin boards in Washington, D.C.

alone). While external groups respond to client requests, one group estimated that only 25 percent of its research topics were client initiated. External groups also indicated that information gathering is easier for them under their own names. Using the client's name raises resistance and questions from those being questioned.

External groups tend to track more routine competitive environment activities. Monitoring and benchmarking information is collected, analyzed, and condensed for top management. By providing an external viewpoint, external CI groups reduce myopic views of the current and potential competition.

Information Resources

The Washington-based public affairs agency provides a reflective insight into information sources, "In a town whose main currency is information, you must go far beyond traditional sources, or you will be way behind in analysis and intelligence." This thought is as applicable in Detroit as it is in Washington. Companies seeking a competitive edge do so by pursuing the unconventional in a manner that provides an information, cost, or quality advantage to the company, which can be transferred into consumer value.

Standard electronic database services, such as Lexis/Nexis and Dialog, are used to initiate searches. These services are used to create quick output on references to competitors and are used as a second source to confirm leads that have been delivered through other services. All companies noted a preference for electronic versus hard-copy searching.

We did not identify, or the companies were not willing to divulge, any unique sources of information. One group noted that it did not like using previously published competitive information because this information has already been in the public realm. A greater competitive advantage, it is thought, is developed through primary information gathering, particularly personal interviews. While this approach may be expensive, it may provide unique business information that will more than pay for itself. Automotive and financial analysts and company executives of non-competing firms were the most frequently identified personal interview subjects.

International operating divisions are used as an information resource. The large international companies are filled with knowledgeable people, but the problem is finding the right person. Beyond identifying persons within particular geographic or other knowledge, corporations are made up of persons belonging to professional societies or associations, coming

from a position with a competing company, or possessing some other experience. The more diverse the workplace, the more important informal networking becomes.

Below we list the various resources that were specifically identified. While this is not an exclusive list, these are the publications and services that were on the interviewees' minds and are most likely their most significant resources.

Electronic database services: Lexis/Nexis, CompuServe (Executive News Service), Dialog, America On-Line, MAID, Comline, Datatimes, DowJones News Retrieval, and CD ROM directories.

Printed trade media: Automotive News, Wards Automotive (including all of their weekly reports and year books), Automotive Industries, automobile review magazines, and other specialized press (for example, American Metal Markets and others covering supplier sectors such as electronics).

European sources: Financial Times and Economic Intelligence Unit documents.

Asian sources: Asian Wall Street Journal and Japan Auto Technology.

Reference sources: Dunn and Bradstreet, Blue Chip Economic Indicators, R. L. Polk, Federal Register, annual reports, 10-K reports, supplier press kits and literature, and ELM International.

Agencies, institutions, and services: University libraries and research institutes, consulting firms, Wall Street research, J. D. Powers, AutoFacts, AutoPacific, AP, PR Newswire, governmental agencies, and clipping services.

Associations and societies: American Automobile Manufacturers Association, Japan Automobile Manufacturers Association, Automotive Industry Action Group, International Standards Organization, National Center for Manufacturing Excellence, Society of Automotive Engineers, Society of Manufacturing Engineers, Automotive Press Association, IEEE, ASME, and specialized international trade organizations.

Other sources: Executive speeches; third parties such as banks, suppliers, distributors, and dealers; personal interviews; industry conferences; luncheon meetings; auto shows; and syndicated reports.

Archiving Information

Most archiving takes place in hard copy form. Many practitioners are leery of elaborate electronic systems, because of the cost to initiate the system and the commitment required to keep the system current. Simple vertical files are the preferred route—they work for the CI staffs and information users. The corporate library uses vertical files extensively. Topic files are added as information requests increase for particular technologies or issues. It is estimated that approximately 30 files are checked out each day. Popular topics include empowerment of people, public policy analysis, electric vehicles, alternative-fueled vehicles, and reengineering of business systems.

While the material may be archived in hard copy form, it is preferable to have electronic indexing of the files (in database or spreadsheet form) so that cross-referencing can quickly take place. Several persons warned against jumping into an elaborate electronic database system. Starting small and building up is the preferred route.

From our interviews, we believe that there is useful information gathering and analysis occurring at the divisional level, but this is not routinely shared across divisions or with the corporate staff. At the other extreme, corporate staff projects are routinely shared, but typically on a "need-to-know basis." That is, if knowledge is deemed important to a particular staff, it will be distributed. Of course, the benefit to the organization depends upon the gatekeepers who determine the distribution list. Restricted lists—by choice or default—hinder organizational learning.

A method to limit the need to identify specific interests and the need for information is to create an effective indexing and archiving system. This helps to minimize the problem of reports or other data locked away in personal files without any means of identifying the content and location of such information. One company did admit to reinventing the wheel on various projects when information was available from previous studies but not retrievable. Each interviewee expressed a desire for better retrieval methods and systems.

Only one group identified a major electronic archiving system. This system is a textbased, free-form database that is used for all forms of information. Hardware is typically not a problem. Companies have the computing power, network capabilities and other equipment required for electronic dissemination and archiving. Rather, it is the lack of software that prevents widespread electronic archiving. Another problem of electronic storage is the fear of copyright infringement. Companies need to be careful not to violate copyright laws when written material is scanned into a system for widespread dissemination.

Dissemination of Findings

The dissemination efforts by the groups we interviewed are broad in scope, strategic in nature, and high profile in sponsorship. The range of dissemination activities varies depending upon the scope of the study and the initiating executive or group. Many use a pyramid approach, making formal presentations to senior management and allowing word of mouth to cascade a message throughout the organization. One group, which undertook a major study of a competitor, delivered the results through over 100 presentations. While some of these presentations were strategically scheduled to target audiences, many were set up through personal recommendations. This type of commitment shows that the company was serious about delivering a message of a competitive threat to as wide an audience as possible.

More common, and limited, methods of dissemination are single staff meeting and senior management presentations. Information dissemination in this manner is more restrictive and identifies a limited number of individuals to be gatekeepers. This is a more limited form of dissemination because it depends on these gatekeepers to release information, in turn, to their departments or staffs. From these interviews, as well as other research, we believe that reward structures and corporate cultures continue to inhibit free sharing of information. To often, it is in the self-interest of an individual to selectively restrict information.

Informal presentations are often used to initiate a dialog between corporate staffs and the operating divisions. This promotes learning and encourages feedback on current and future CI activities. The least effective form of dissemination is a memo report sent out with a broad routing slip. Because there is no personal interaction or required response, little importance is placed on this form of distribution.

An emerging method of dissemination and general networking is the creation of internal advisory boards or councils. One company refers to these groups as "technology clubs." Examples include those focusing on product technology and market forecasting. Councils on the small side have six to eight representatives. These bring together persons across functions within a division or product development platforms. Larger councils may involve up to 20 persons.

These groups promote internal information exchange (for example, technology transfer across aerospace and automotive divisions) as well as external learning (for example, sharing information from a trade show or technical society meeting).

Product technology groups may be organized around topics such as powertrain components or advanced, lightweight, composite materials. When the interviewees mentioned these boards or clubs, it was obvious that the groups were formed with a specific objective in mind, and information sharing is an expected activity. Membership may be open to everyone with an interest or highly selective. The councils also are a source of identifying and prioritizing issues or technologies to be tracked.

The external agencies are more likely to disseminate information through written communication. The public affairs firm publishes a weekly Washington alert newsletter and distributes written reports to clients. The governmental agency publishes a newspaper insert that is distributed broadly through its domestic industry. It also publishes summary reports of emerging technologies by major industrial sectors. And each person at the end of his or her foreign assignment is required to write a final report summarizing all that he or she has learned. If there is interest, and subscribers to underwrite the cost, regularly published newsletters are prepared to track specific technologies. Other external CI groups prepare quarterly summaries of their current work and update previous projects.

Feedback Mechanisms

The internal CI groups receive a more informal than a formal review of their work. They judge the interest in topics and the value to the operating divisions by general discussions and requests for presentations and additional information. Meetings several times per year with top management also provide feedback. Of course, the perceived value is reflected through annual budgets and the assessments placed against operating divisions for corporate staff support.

The outside service groups measure their success in two ways: first, by the number of requests that they get for additional information or specific follow-up projects after a publication or presentation; and second, by the continuation of clients and project funding. Losing a client is the most direct form of feedback for a public relations or a consulting firm.

Using PR Newswire

PR Newswire was interested in its general name recognition and perception. One group did not know of PR Newswire and a second was only vaguely aware of its services. The others

use PR Newswire extensively. As with any single source, PR Newswire is considered "just one piece of the puzzle." It is used primarily for identifying issues, research leads, and personal contacts. Persons complained of having difficulty sorting through the public relations "fluff" and usable information. The new format for the headline news order form that separates out financial reports, executive changes, and product introductions begins to address the problem of information overload.

Desired Additional Sources of Information

Of course, every interviewee would like future product information. However, one supplier desires a supplier-sourcing database. Component-sourcing information is obtained through time-consuming personal contacts and is quickly outdated. Such a database could list the sourcing of the major platform components. Additional business information such as R&D and marketing expenditures as a percentage of sales; capital spending; and human resource profiles (that is, how many degreed engineers are in various technical centers) is desired. Gathering this information could create a census of automotive suppliers.

One interviewee wishes for a menu-driven, master, on-line index of automotive resources. Such a system could pull together international resources and work interactively with the user, drawing him or her to the most likely sources of information.

Southeast Asia is a troublesome area of the world. Spoiled by the vast amounts of information available on the North American market, CI practitioners lack a regular flow of information on Southeast Asia. While there is a variety of newsletters and clipping services available, particularly on Japan, the style and coverage depth are considered weak. It is noted that unlike North America, Southeast Asia does not have a homogeneous automotive industry. Japan and Korea are the dominant players; Taiwan, Malaysia, and other countries are emerging. Some countries have well-established automotive manufacturing and components capacity, while other countries have none. Perhaps the greatest issue with information sources from this part of the world is that executives do not believe they have enough experience to evaluate the trustworthiness and accuracy of foreign news services.

Other topics requiring additional tracking information include governmental policy and regulations; the emerging Mexican market and the uncertainty surrounding the North American Free Trade Agreement; technical consortia and national laboratories, cooperative-effort outcomes; intelligent vehicle highway systems; privately-held companies; smaller corporations and subsidiaries; and Japanese company financial information.

Conclusion

Competitive intelligence (CI) gathering is becoming a core element of the automotive industry's strategic planning process. Companies are seeking a greater depth of information concerning international competitor investment strategies, product and business systems quality benchmarks, and market and customer trends. Companies are increasing their use of electronic data bases and other information sources. The sources we spoke with are familiar and comfortable with the many on-line and pc-based data base systems. However, these groups are not in the majority.

Automotive firms are trying to become learning organizations where everyone is involved with collecting and disseminating information. Of course, the most difficult questions to answer are "What information is important?" and "Who needs this information to do their job?" The CI executives we interviewed view themselves as information conduits between the outside world and internal groups and within the corporation itself. Companies are looking for systems to track emerging issues, organize available information resources, and disseminate information easily. If everyone is made a CI agent, then the filters of identifying what information is important and who needs the information and in what form are removed.

We identified several information-poor topics. While these may be today's hot topics, information providers and disseminators need to work closely with information users to continually update the wish list of desired information.