- D.R. Shier. Cost/Benefit Analysis of Automated Transit Information Systems. National Bureau of Standards, Washington, D.C., June 1977.
- Socio-Economic Impact Assessment of Automated Transit Information Systems (ATIS) Technology. Draft National Report. Wilson-Hill Associates, Washington, D.C., May 1982.
- J.A. Bonsall. Better Information Equals More Riders. Ottawa-Carleton Regional Transit Commission, Ontario, Canada, June 1981.
- Telerider: A Marketing Tool for Transit. Teleride Corporation, Toronto, Canada, Aug. 1982.

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Transit Marketing: The State of the Art

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ABSTRACT

The role of marketing in the transit industry has undergone numerous changes in the past decade, expanding as the task of attracting new riders or retaining existing riders has become more complex. A review of current marketing practice at representative transit agencies in North America is summarized in this paper. The review demonstrates the complexity of the marketing function, which encompasses market research, service development, pricing, promotion, consumer aids, and evaluation. Although most agencies surveyed reported activities in each of these areas, few had comprehensive programs that linked all elements. Considerable sophistication was demonstrated in specific promotional techniques such as radio and television advertising; use of car cards and billboards and in consumer information aids such as schedules and timetables, telephone information systems, and system maps. Quantifiable evidence of the effectiveness of such techniques is generally lacking, however, and a need for further research is evident. The review revealed a number of promising new practices. Included among these are market segmentation and target marketing, direct contact marketing, electronic user information aids, and consumer orientation training for transit agency employees.

In recent years significant advancements in marketing practice have generated considerable interest in the transit industry in transferring some of the successful techniques to the public sector. At the same time, there is a recognition that the marketing of a public sector service good such as transit is different in many respects from the marketing of consumer goods in the private sector.

Although the level of interest in transit marketing has been increasing since the 1970s, little attention has been given to evaluating marketing programs or specific marketing techniques. As a result, transit marketing often occurs without a clear cost justification and cannot command the full support of top management. Some evidence of what works in the context of transit marketing is provided by current and past practice. In this paper an assessment is presented of current practice in transit marketing. The research for this paper was sponsored by the Urban Mass Transportation Administration under the Service and Methods Demonstration Program.

This paper is the product of three research steps, including a review of prior research, an inventory of current marketing techniques, and a survey of marketing directors from 25 transit agencies in North America. The remainder of the paper is organized into three sections. The first provides a discussion of the role of marketing in transit and its relationship with other planning and operational functions within an agency. The second section includes a description of the range of marketing techniques currently used by transit operators. The final section contains a summary of the organization and function of marketing in the transit industry today and an assessment of the relative effectiveness of the most commonly used techniques in each functional area.

ROLE OF MARKETING IN TRANSIT

Although transit managers almost universally agree that some level of marketing is necessary, there is

far from consensus on what marketing is, and how much is needed. Transit managers who have a more traditional product-oriented approach tend to define marketing as advertising and promotion, whereas managers who have a more consumer-oriented approach tend to view marketing as an active element of service planning, operations, and strategic planning. If marketing is to make a significant contribution toward the cost-effective delivery of transportation services, its scope must be broadened beyond the limits of advertising and promotion.

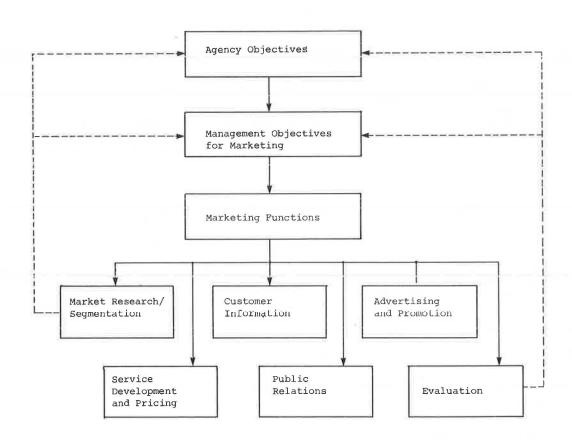
One possible framework for a comprehensive approach to marketing in the transit industry is shown in Figure 1. It is based on recommendations of prior research efforts in transit marketing $(\underline{1}-\underline{3})$ and on discussions with transit marketing professionals. The proposed shift from production to consumer orientation and the role for marketing in directing all agency activities are consistent with current marketing theory (4).

From the perspective of the marketing department, marketing is seen as a set of interrelated activities, including market research and program evaluation in addition to the more traditional activities of promotion, advertising, public relations, and customer information. From an organizational perspective, the marketing function can be seen as being part of other functional areas of the transportation agency—product planning, pricing, and operations. This is not to suggest that marketing staff should be responsible for the activities of these areas, but rather that marketing activities should provide direction for them. Marketing works best when a consumer orientation pervades the organization, top to bottom.

The individual elements of a comprehensive marketing program might function as follows:

- * Market research, the link between the consumer and the transit agency, should play a central role in any comprehensive marketing program, from the development of objectives and marketing strategies through promotion of transportation services, provision of customer services, and evaluation and monitoring of specific marketing programs.
- Service development and pricing play the role of adjusting service or packaging it in such a way as to be more appealing to the consumer. Current riders are provided rewards or additional reasons for using transit and prospective riders are provided more good reasons for considering transit use.
- $^{\circ}$ Consumer information services provide current and prospective users the information needed to use the transit system.
- Public relations activities are fundamental to developing and maintaining community support and awareness of agency activities.
- * Advertising and promotion activities are fundamental to attracting and maintaining transit system ridership. In contrast to public relations, these strategies concentrate on conveying a specific message to targeted segments of the transit market rather than a broader message to the general public.
- Evaluation activities are designed to measure the effectiveness of individual marketing activities, other marketing elements, and the overall marketing program.

A review of current transit marketing practice in North America shows that the integration of marketing



←---- Information Feedback

FIGURE 1 Integrated structure for marketing.

with other transit agency activities is not common. Many properties use sophisticated approaches to marketing, with well-developed and effective marketing techniques, but few have an organizational structure and planning process that fully exploits the contributions of a comprehensive marketing program. The most common organizational structure found among transit agencies—even those with sizable marketing budgets—separates service development, pricing, and promotion. Considerable information can be lost when responsibility for these functions is dispersed.

REVIEW OF MARKETING PRACTICE

Individual transit agencies use a wide variety of techniques to meet a range of marketing and system objectives. Highlighted in this section are some techniques currently used by transit operators to market transit services in terms of their objectives, how they work, and how their effectiveness is measured. [A list of techniques and examples of their use are given in Table 1 and detailed information can be found in reference $(\underline{5})$.] The techniques are divided into the same functional areas as in the previous section. The marketing function at any given transit agency may not be structured exactly this way and may not include activities in all areas, but the categorization is intended to cover the current range of all transit marketing activities.

Market Research

Historically, marketing activities in both the public and private sectors have largely been concerned with product or service packaging and promotion. Changes in demographics and lifestyles over the past several decades have resulted in a proliferation of markets and a recognition that the logical first step in product development is identifying what the consumer wants and needs. In the private sector this has meant moving from an emphasis on making products and then selling them to an orientation that emphasizes producing what the consumer wants. Market research is the key element in this process.

The transit industry has begun to move in this direction for a variety of reasons. Publicly operated transit systems are called on to provide a wider variety of transit services than those provided by their privately operated predecessors, usually in a highly visible and political arena. In addition to meeting the needs of commuters, publicly owned systems must address the mobility needs of such diverse groups as shoppers, the elderly and handicapped, students, and others. Increasingly, marketing is being viewed as a comprehensive process that identifies the needs of specific consumer groups, develops services to meet those needs, suggests promotional strategies, and feeds back evidence of success or failure in the transportation marketplace. This view of marketing puts market research in a central position.

Current transit market research practice emphasizes a market segmentation approach, which identifies subgroups and non-user markets, each of which seeks different attributes from the transportation system. In target marketing, individual activities are developed and aimed at a particular market segment, based on characteristics such as demographics, travel patterns, and residential location. Nearly all transit agencies do some target marketing, and it is not unusual for an agency to target all of its marketing activities.

Although market research is widely viewed as an important and effective component of transit market-

ing, its full potential has yet to be realized. Transit agencies use a variety of market research techniques, but generally lack the resources to apply them fully and consistently. On-board surveys and telephone surveys are among the market research techniques most widely used to determine user attitudes and assist in the design of improved service delivery. Employer surveys have been used to find out more about employee travel behavior. Newer market research techniques include the use of request cards and coupons, focus groups, and electronic questionnaires to determine consumer attitudes toward transit services. In cities with limited resources available for market research surveys, attitude and awareness studies have been conducted by local universities.

Service Development and Pricing

Typically, marketing and service development are treated as distinct areas of responsibility within transit agencies. Although the amount of interaction between marketing and service planning varies from agency to agency, basic issues of service and pricing are the responsibility of service planning, and marketing is responsible for promotion and customer service. This gap between service planning and marketing often results in service development and pricing decisions that lack the consumer perspective provided by marketing.

The process of selling a product or service usually includes making adjustments to its design or packaging it in a way that is more attractive to the consumer, and marketing professionals can play an important role in this aspect of service development. In the context of transit marketing, service development includes techniques that make transit service more convenient and attractive to use.

The range of techniques being employed is considerable, from minor changes in the process by which a transit rider pays for service to major service modifications. Many systems, for example, routinely provide transportation services for special events to increase off-peak ridership. Other transit agencies emphasize making their services more convenient to use, particularly through the introduction of transit passes, often with various purchase options such as special sales outlets, credit card payments, or employer programs. Because the way a service is delivered is often equated with the product in the mind of the consumer, more attention is being focused on programs to increase employee professionalism and enhance morale. Many marketing departments also take advantage of the acquisition of new or upgraded equipment to promote improved service. Service development marketing techniques result in a more attractive package -- they reinforce the user's reasons for choosing transit while creating a more attractive package for the individual who is considering its use. In addition, these activities often provide opportunities for collaboration with the private sector; business contributions to promotional or operating costs, or both, can maximize marketing resources.

Consumer Information

Consumer information activities are designed to provide the public the information needed to use the transit system. At a minimum this requires disseminating route and schedule information to current and potential users. As transit marketing becomes more sophisticated, however, consumer information services are further refined to address ease and efficiency of system use. Consumer research has shown

TABLE 1 Selected Marketing Techniques

Specific Technique	Objective	Representative Examples of Use
Market Research On-board surveys Telephone surveys	Determine user attitudes; improve delivery of transit services. Determine user and nonuser attitudes and awareness of system and	Universal Widespread
Focus groups Employer surveys	services; improve delivery of transit services. Determine consumer attitudes; improve delivery of transit services. Determine employee travel behavior; improve delivery of transit services.	Miami, Los Angeles, Twin Cities, Spokane Houston, Boston
Request cards, coupons	Determine travel behavior and consumer attitudes.	Bridgeport, Orange County
Service Development and Pricing Special events transportation	Increase off-peak ridership.	San Diego, Monterey, Oakland, Los Angeles, Pittsburgh, Buffalo, Cincinnati, Columbus,
Subscription commuter service Transfer reciprocity	Increase commuter ridership; make transit more convenient to use. Make transit more convenient to use.	Peoria, Albany, Chicago, Knoxville Tucson, San Jose San Francisco (BART/Muni); Monterey, California: Bridgeport
Transit passes	Increase peak-period ridership; make transit more convenient to use; improve property's cash flow; increase operating efficiency,	Seattle, Houston, Denver, Spokane, Toronto, Peoria, Madison, Portland, Boston, Bridgeport
Purchase options (sales outlets, credit card payment, employer pass programs)	Make transit more convenient to use; increase pass sales; improve property's cash flow.	Boston, Tucson, Bridgeport, San Francisco (BART), Los Angeles, Baltimore, Denver, Houston
Employee development program	Increase employee professionalism; enhance employee morale; improve service to public.	Seattle, Albany, Syracuse, Oakland, Milwaukee, San Francisco (Muni), San Mateo, Twin Cities
Consumer Information Timetables, maps, signs, schedules	Provide information; make transit easier to use; increase operating efficiency.	Universal
Telephone inquiry: (a) live, (b) automated or computer-assisted Information center	Provide necessary information; make transit easier to use; increase operating efficiency. Provide necessary information; make transit easier to use; increase	Universal; Columbus; Washington, D.C.; Toronto; Twin Cities; Los Angeles; Portland Toronto; Houston; Cleveland; Boston;
Trip planner	operating efficiency. Make transit easier to use for infrequent or first-time rider; increase off-peak ridership.	Huntington, West Virginia; San Antonio Tucson; Orange County; Lancaster, Pennsylvania
Tourist information aids	Increase off-peak ridership; make transit easier to use.	Toronto, New York, San Francisco (BART), San Diego, San Antonio
Cable television	Disseminate information to general public; increase awareness of property's role and function within community; enhance property's image; promote use of transit services.	Denver; Seattle; Columbus; Paducah, Kentucky; Iowa City
Displays	Disseminate information to general public; increase awareness.	Los Angeles, Boston, Milwaukee, San Diego, Cincinnati, Spokane
Public Relations Community education programs	Make transit easier to use; increase off-peak ridership,	Albany; Columbus; Madison; Dayton; Houston; Cincinnati; Pittsburgh; Philadelphia; Fort Worth; San Jose; Tri
Community outreach programs	Disseminate information to general public; increase awareness; enhance property's image.	Cities, Washington San Francisco (Muni), Los Angeles, Baltimore, Atlanta, Philadelphia, Boston, San Diego,
Newsletters	Keep riders up-to-date on transit system's activities.	Houston, New York, Toronto, Tucson, Milwaukee, Portland
Press releases Media events	Increase awareness; enhance image. Increase awareness; disseminate information to general public.	Universal Milwaukee, Dayton, Tulsa, St. Louis, New York, Fort Wayne, Topeka, Spokane,
Community service	Demonstrate commitment to community; enhance property's image.	Buffalo, Miami Syracuse; Albany; Fort Wayne; Denver; Seattle; Los Angeles; Pittsburgh; Milwaukee; Reno; Chicago; Allentown, Pennsylvania
Advertising and Promotion Newspapers	Increase awareness; promote transit services; enhance property's	Universal
Radio	image. Increase ridership by target marketing automobile commuters; increase awareness.	Denver, Twin Cities, Houston
Outdoor (billboards, transit vehicles)	Increase awareness. Increase ridership by target marketing automobile commuters; increase awareness.	Universal
Direct contact marketing	Increase awateness. Increase ridership on specific routes or services; promote transit use.	Seattle; Twin Cities; State College, Pennsylvania; Los Angeles; Denver;
Commercial television	Promote transit use; increase awareness; enhance property's image.	Bridgeport; Toronto; Spokane; San Diego San Antonio, Spokane, Cincinnati
Advertising tradeouts Merchant discounts	Reduce advertising costs by leveraging advertising resources Increase pass sales; enhance values of pass; increase peak period ridership; increase off-peak ridership; gain participation	Denver, New York, Seattle Boston; Seattle; Tucson; Peoria; Madison; Portland; Washington, D.C.; New York;
Free or reduced fares	of local businesses. Increase ridership (primarily in off-peak); gain participation of local businesses.	San Diego; Spokane; Bridgport Bridgeport; Salt Lake City; Orange County; Rochester; Syracuse; Canton; Huntington, West Virginia; Allentown, Pennsylvania; Dayton; Nashville; Pittsburgh; Denver
Anniversary celebrations	Promote transit system use; increase awareness; enhance property's image.	Chattanooga; Seattle; Monterey; Lynwood, Washington, D.C.; Cincinnati; Birmingham; Duluth
Sponsor contests	Promote transit system use; improve system aesthetics; enhance property's image.	Birmingnam; Duluth Williamsport, Pennsylvania; Orange County; Dayton; Madison; Phoenix; Dayton; Baltimore; Pittsburgh; Boston
Promotional items	Increase awareness; raise revenues to defray production or operating costs.	Pittsburgh; Reading, Pennsylvania; Wilkes-Barre; Miami; Los Angeles

that many people shy away from transit because they find it hard to understand. User aids and community education activities can play an important role in de-mystifying the transit system and making it easier to use. In addition, informed users make a system run more efficiently; for example, a rider who knows that exact fare is required and has it ready is less likely to cause a delay than one who is unaware of the policy. Depending on their design, consumer aids and consumer education activities can also promote system use to the general community.

A wide variety of marketing techniques are currently used to support the consumer information function. Two broad categories are user aids and community information programs. User aids run the gamut from traditional information sources such as timetables, maps, signs, and schedules, to sophisticated information systems. Automated or computer-assisted telephone inquiry systems, for example, are being used in a number of cities to make transit easier to use and to increase operating efficiency. Some transit agencies have used trip planners to assist infrequent or first-time riders in using transit; tourist information aids in many large cities serve the same purpose. More general information about transit services is offered to a wider audience via community information programs that include the use of displays, newsletters, and community outreach or education programs. Cable television is a relatively new technique that is being applied to enhance a property's image and promote the use of transit services. Although the relative effectiveness of cable television has yet to be documented, it is likely to be less effective for advertising and promotion than more traditional media such as radio, commercial television, and newspapers because of its significantly smaller audience.

In general, the cost-effectiveness of different consumer information techniques is not well documented. Appropriate evaluation tools appear to be lacking, or at any rate not often applied. Transportation marketing staff perceive these activities to be effective, however, based on the number of requests generated and the customer feedback received.

Public Relations

Public relations encompasses activities designed to develop and maintain community support and awareness. Public transportation agencies do more than just provide transportation services; they also play an important role in helping to solve a region's current and projected transportation problems and in influencing economic development and revitalization. The ability of a transit agency to meet its stated objectives depends on the level of support it receives from the general public, local officials, and the business community. Public relations activities are designed to meet this need.

Needless to say, there is considerable overlap between public relations and other marketing activities, particularly in the area of community information programs and advertising. Here, public relations refers to press releases, media events, and community service activities. These techniques are designed to increase public awareness of an agency and, if possible, enhance its image. Community service activities are also designed to demonstrate a commitment to the community on the part of a transit agency. Most public relations techniques are universally used. Their effectiveness, however, is difficult to measure directly, and as a result, agencies tend to measure their effectiveness by considering factors such as the amount and tone of media coverage

and public responses and results of attitude and awareness surveys.

Advertising and Promotion

Across the board, transit agencies devote most of their nonpersonnel marketing budgets to advertising and promotional activities. Until relatively recently the transit market was viewed as homogeneous. Advertising and promotion reflected this view and tended to use the "shot gun" approach of communicating a singular message to the general public. The growing recognition that transit systems are used by many different groups for a number of purposes has resulted in a new approach by transit marketing professionals--one that recognizes the need to develop a range of advertising and promotional techniques to reach individual market segments. Although broad advertising and promotional activities are still conducted, they no longer predominate and, when used, they generally serve as an "umbrella" under which targeted activities are carried out.

In general, advertising is viewed as a mechanism for enhancing a system's image and for promoting transit system use. Promotional activities, as defined for this review, have the objective of attracting ridership to specific services or at specific times of the day. In the following sections techniques are described that are currently used to advertise and promote transit services. Although advertising and promotional activities are presented separately, they are more likely than not to be combined in practice.

Advertising

Transit marketers rely on a mix of advertising media. The overall mix varies significantly from agency to agency because of differences in resources and urban area characteristics. Among the most popular media for transit advertising are newspapers, radios, billboards, and the interior and exterior of transit cars. Advertising resources can be maximized through tradeout arrangements with newspapers or radio stations. Tradeouts do not normally provide choice treatment, but if the agency is willing to purchase additional advertising, the tradeout can often be used toward the purchase of more desirable space or time. Direct contract marketing is one of the newer techniques being used to increase ridership on specific routes and promote transit use to selected groups of consumers.

It is particularly difficult to assess the effectiveness of activities designed to enhance awareness or image because the payoff tends to develop over time. Although all media were judged to be effective in some circumstances, little formal documentation of relative effectiveness exists. Most agencies rely on attitude and awareness surveys to measure effectiveness. A recent Michigan Department of Transportation evaluation of media advertising revealed that newspaper advertisements claimed the highest recall, followed by radio. The Kingston Transit System (Ontario, Canada) evaluated a program that included radio, newspaper, and on-bus advertising and concluded that advertising alone will not increase transit ridership enough to justify the cost of the program.

Promotion

Promotional activities provide consumers with nonservice-related motivation to use the transit system; for example, reduced fares, merchant discounts, or contests. Many of the activities can be categorized as incentive promotions, or short-term programs designed to increase ridership over the long run. An incentive (e.g., free or reduced fare) is offered to induce consumers to try the service on the assumption that they will recognize its value and continue as regular paying customers. Incentive promotions are the first step in the process of changing consumer behavior.

Transit agencies are using a wide variety of promotional techniques to increase ridership and also to promote awareness of the system. For example, some agencies negotiate an agreement with local merchants to offer discounts on merchandise to transit riders. Other agencies offer free or reduced fares to attract off-peak riders. In many cities, contests and celebrations are held to promote transit system use. Although an incentive promotion may result in a short-term revenue loss, it is expected to increase ridership in the long run. Incentive promotions can provide good opportunities for collaboration with the private sector. In many cases, local businesses are willing to cover all or a portion of promotion costs. Although incentive promotions are popular with consumers and marketing staff, their costeffectiveness has yet to be proven.

Evaluation

Although the recent Transportation Research Board review of transit marketing evaluation practice $(\underline{6})$ was limited to promotional marketing endeavors (advertising, incentive promotions, and consumer information aids), its conclusions are relevant to marketing activities across the board:

- A large proportion of promotional activities are evaluated but the majority are evaluated by weak experimental designs lacking control groups and before and after measurements.
- The consumer's actual behavior is most often used to measure effectiveness.
- Direct observation of consumer behavior is the most popular data collection technique used.
- Transit marketing evaluation places heavy emphasis on gross indicators of consumer response such as overall system ridership and revenue.

These views are also supported by other research efforts (7,8).

- It is often difficult to evaluate the effectiveness of a particular marketing activity. Formal
 evaluation requires the development of a good consumer data base. Because market research tends to be
 underfunded, evaluation efforts are often hampered
 by a lack of appropriate data. In addition, marketing
 activities typically coincide with other system
 changes, and evaluation is then complicated by the
 presence of other factors. Some of the measures used
 by transit marketing professionals to evaluate the
 effectiveness of their marketing activities are as
 follows:
- Consumer information and education. Attitude and awareness measures and behavioral measures, such as the number and nature of phone calls received, are generally used to determine the effectiveness of these activities. The effectiveness of user aids is measured by both preference and ability to use, which require different measures, and by the degree to which costs can be covered by sponsoring or sales.
- Advertising and promotion. Advertising effectiveness is measured by awareness indicators, number of phone calls received, and media analysis.

The degree to which promotional costs are covered by other businesses and organizations is used as well. The success of incentive promotions is usually measured by a combination of behavioral indicators including ridership, revenues, rate of response of coupon return, and increase in retail sales; direct contact is also used in some cases.

- Public relations. The amount and tone of media coverage are the primary measures used to evaluate public relations activities. Attitude and awareness surveys also provide additional information.
- Service development. Both behavioral indicators such as ridership, revenues, number of passes, and so forth, and attitudinal indicators are used to measure effectiveness. User and attitude and awareness surveys are also used.

Agencies generally attribute their limited evaluation activity to a lack of staff and financial resources. An appropriate evaluation effort has the potential to pay for itself, however, by identifying the relative cost-effectiveness of individual marketing activities. Without evaluation, management has little way of knowing whether marketing objectives have been met. Conversely, evaluation data can provide strong evidence to persuade management of the usefulness of specific marketing programs and marketing in general. A strategy for assessing relative benefits and costs should be built into the planning phase of individual marketing activities and should be used to evaluate the effectiveness of each completed activity.

ASSESSMENT OF CURRENT PRACTICE

Organization and Function

Currently, there is an increased emphasis on costeffectiveness in the delivery of transportation services. By providing a vital link between the consumer
and the producer of services, marketing can make a
significant contribution toward increased productivity in the transit industry. If the potential of
marketing is to be realized, the role of marketing
must be expanded from advertising and promotion to
include market research and evaluation, and the marketing function must be integrated with activities
of other agency operating departments.

Within most transit agencies, however, marketing is viewed primarily as a mechanism for advertising and promotion. This traditional view is also reflected in the organizational structure of most transit agencies. More than 90 percent of the agencies surveyed combine marketing with activities such as communications, public information, or community relations to form a department. Information services are included with marketing by almost all agencies and account for a significant portion of the marketing budget. The agencies included in this review reported that, on average, 66 percent of marketing personnel are devoted to telephone services alone, and Seattle reported that information services account for 66 percent of its total marketing budget.

The amount of coordination between marketing and other operating departments varies significantly from agency to agency. At best, marketing staff work closely with staff from other departments to develop promotional strategies and to share insights about consumer attitudes and behavior. At worst, the role of marketing is limited to packaging and promoting a product developed by another department.

Marketing Techniques

Significantly more progress has been made toward developing innovative marketing techniques than toward developing an organizational structure that takes full advantage of the marketing function. The state of the practice in transit marketing includes the use of a wide variety of techniques that are used by individual agencies to meet a range of marketing and system objectives. Transit agencies rarely perform structured evaluations of marketing activities and are more inclined to rely instead on perceived effectiveness. As a result, documentation of the effectiveness of marketing activities is rather limited. Research sponsored by the Urban Mass Transportation Administration and the Transportation Research Board has provided valuable insight into the effectiveness of marketing techniques such as fare prepayment, fare-free systems, short-term economic incentives, and promotional activities, and an assessment of transit marketing evaluation activities. However, additional efforts to determine the cost effectiveness of individual marketing techniques and mechanisms for sharing the results of research and evaluation activities among the agencies in the transit industry are also needed.

Market Research

Market research is widely recognized as the pivotal component of transit marketing; however, marketing departments generally lack the financial and staff resources to conduct market research studies on a consistent and timely basis. What is needed, then, are ways to make existing market research techniques more cost effective.

Service Development and Pricing

This is acknowledged to be an area in which marketing should play a major role, but this is rarely the case in actual practice. Activities in this area have mainly focused on fare prepayment and fare-free zones. Evaluation indicates that these programs are more effective in attracting existing users than in increasing ridership. Although these programs have significant administrative costs and result in reduced revenues, offsetting cost savings can be realized through savings from advanced collection and reduced loading times. These activities often provide opportunities for collaboration with the private sector that can maximize the effectiveness of marketing resources.

Consumer Information

Consumer information is generally the first marketing element developed by a transit agency. Regardless of the level of marketing activity, each transit agency interviewed believed that good consumer information services were the most necessary marketing element. Transit agencies spend a significant portion of their marketing budgets on user aids, and more needs to be learned about how to maximize the costeffectiveness of their design and distribution. Trip planners and tourist information aids are relatively new concepts that show promise in transit marketing, particularly for attracting off-peak ridership.

A significant portion of marketing resources are devoted to responding to telephone inquiries. Evaluation evidence is limited but suggests that automation of telephone responses can reduce costs and increase productivity when the level and cost of

automation is matched with local needs and resources. Techniques to make the telephone inquiry response function as a sales tool as well as an information tool also show promise.

Public Relations

Public Relations activities rely heavily on the effective use of local media to keep the public up-to-date on transit agency activities. Transit agencies take advantage of the arrival of new equipment and the implementation of new services to capture media coverage of activities. Community service activities by the agency or by transit employees are effectively publicized to demonstrate agency commitment to the community.

Advertising and Promotion

Advertising and promotion activities are focusing more on target marketing techniques and less on a "shot gun" approach. The limited evidence available suggests that advertising is most effective for generating broad-based support and enhancing transit's image and least effective for increasing revenue from passengers (i.e., getting more riders). Advertising resources can often be stretched through tradeouts and joint promotions with retailers and businesses. Direct contact marketing is seen as an effective marketing tool, but more rigorous evaluation of its cost-effectiveness is needed.

Nonfare-related incentives, such as merchant discounts, are popular among transit users but appear to be more effective in increasing pass sales than in attracting new riders. Free or reduced fares are also commonly used, primarily to increase off-peak ridership. Both programs are cost-effective ways to involve the private sector in agency activities. The full cost of these programs is generally not well documented and little is known about their impact on ridership over the long term.

Most transit agencies evaluate at least a portion of their marketing activities and programs, but few take a consistent approach to evaluation. A strategy for evaluation is rarely considered in the planning stages of a specific marketing activity, and resources are seldom available to conduct a thorough evaluation of a single activity. Because marketing activities are often difficult to evaluate in terms of cost-effectiveness, evaluation tends to rely more on measures of perceived rather than quantified effectiveness.

Although experiences reported by other transit agencies are helpful in assessing the cost-effectiveness of a particular marketing technique, comparative data have limited usefulness. Local evaluation of marketing activities is an important activity because the cost-effectiveness of any particular technique will depend on local objectives, needs, operating characteristics, and staff capabilities.

REFERENCES

- Urban Transportation Economics: Proceedings of Five Workshops on Pricing Alternatives, Economic Regulations, Labor Issues, Marketing, and Government Financing Responsibilities. Special Report 181, TRB, National Research Council, Washington, D.C., 1978.
- Proceedings of the National Transit Marketing Conference, Office of Transit Management, UMTA, U.S. Department of Transportation, 1975(a).
- 3. Transit Marketing Management Handbooks: Market-

- ing Organization, 1975; User Information Aids, 1975; Pricing, 1976; Marketing Plan, 1976; An Evaluation of Consumer Attitudes, 1976, UMTA, U.S. Department of Transportation.
- P. Kotler. Marketing Management: Analysis, Planning, Control. Prentice-Hall, Englewood Cliffs, N.J., 1984.
- 5. Cambridge Systematics, Inc. Transit Marketing Techniques: A Review of the State of the Art, and A Handbook of Current Practice. UMTA, U.S. Department of Transportation, 1984.
- P.B. Everett and B.G. Watson. A Review of Transit Marketing Evaluation Practice. UMTA, U.S. Department of Transportation, 1982.
- M. Abkowitz and M. Driscoll. A Comparative Study of Public Transit Promotion. UMTA, U.S. Department of Transportation, 1983.
- A.M. Lago and P.B. Mayworm. The Economics of Transit Fare Prepayment Plans. Ecosometrics. Inc., Bethesda, Md., 1981.

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A Special Event Parking and Transit Pass System Using Ticketron: The Rochester, New York, Tall Ships Experience

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ABSTRACT

Ticketron is a well-known advance reservation and ticket sales system that is seldom used in the field of transportation. Although Ticketron could be used more fully in many transportation situations, one of the best applications is for special event, park-and-ride shuttle bus ticket sales. The use of Ticketron in such a situation by the transportation system in Rochester, New York, for a 4-day Tall Ships Festival in July 1984 is described. More than 29,000 parking tickets for 94,000 bus passengers were bought through Ticketron. The event and the transportation system worked well owing in part to the Ticketron sales. The costs and benefits of using Ticketron in Rochester is described along with general transportation characteristics in which Ticketron sales would be most beneficial. Although not applicable in all situations, the use of Ticketron can greatly improve the allocation of scarce transportation resources, and it is especially applicable for special-event transportation. The successful Rochester experience also demonstrates that the use of Ticketron in special-event transportation need not be limited to large cities, but its use is also justified in medium-sized cities as well.

THE CONCEPT

Advance sales of tickets by Ticketron for concerts, camp sites, and other activities is well known in the United States. Such sales involve multiple-event scheduling using decentralized computer terminals connected to a central mainframe computer. Event information is often provided to remote terminal outlets using microfilm. The system is nationwide, thus event reservations can be made from anywhere in the United States. This nationwide sales network is important for events that draw from more than a local market.

Only a few applications of Ticketron sales can be found in the field of transportation. Several colleges such as Pennsylvania State University and the University of Wisconsin, Madison, include the presales of reserved parking spaces as part of their football ticket system. Bus and airline reservations are also provided as part of tours that are scheduled through Ticketron. It has also recently been learned that the 1984 Summer Olympics issued more than 200,000 Ticketron tickets for some of its transportation services. No other Ticketron transportation applications are known by the author. In cases in which Ticketron is used, transportation is