

# Starting the Transit Industry on a Search for Affluent Markets

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This paper describes the logic behind the design of a state-level government program to assist the transit industry in the adoption of marketing practices. Marketing is seen as essential, given the awkward standing of transit in the travel market and the tentative nature of its political support. In marketing, the diffusion of innovation model postulates that the industry will accept marketing practices in a series of stages. Each stage, while growing less experimental, will draw new adherents who need increasing certainty and tend to address issues not resolved in the earlier stages. The opportunity for government is to manage this process by creating the material and environment that stimulate the maximum participation of those in transportation who are able to move in each stage. The emerging California Department of Transportation program, tailored to the existing stage of early adopter behavior, is to highlight the concept of market segmentation and its corollary strategy of offering specialized services at different fares to distinct affluent groups identified by market research.

Public transportation has only recently become an area of concern for state government in California. The present agency group concerned with state transportation, the Division of Mass Transportation (DMT), came into existence in 1973 with the creation of the California Department of Transportation. DMT, like similar agencies in other states, is to be a knowledgeable advocate for public transportation within state government and a source of management assistance for the operators of local transit properties.

Because marketing is an emerging field within public transportation, DMT created a marketing branch and set about to devise the most effective program for California in this area. Marketing was given prime emphasis by the division because of its unique capability of influencing the population's support of public transportation both as potential transit users and as voters.

We authors, one as an independent consultant, had primary responsibility to design the DMT marketing program. This paper reports on this work and presents the policy conclusions that have since been implemented in state activities. To our knowledge, this is one of the

few cases in which a government program in transportation has been shaped by the principles of social design to induce change in the practices of its industry. The focus of this paper is on the marketing of marketing to the public transportation industry in California, specifically the promotion of the orientation to market segments in transit.

## PRESENT CIRCUMSTANCE OF TRANSIT

This is clearly a unique time for transit. Not since the "early booming days of the street railway business" (1) has expansion in peacetime been expected for the industry. This public support has spawned the expanded funding for transit development and equipment. It also creates the environment for a needed shift of the industry toward a marketing orientation.

### Awkward Market Position

Transit is one of the few industries still producing a standardized product for its entire market. Normal economic practice is that a market is broken into segments with different needs and abilities to pay. The providers of food, clothing, and other basic needs assume that consumers desire products with varied style, quality, and price; however, providers of buses do not.

This is an important realization because most people do not purchase the standard transit service any more. The comprehensive transportation studies of the 1960s throughout the country showed that 95 percent of the people who have the choice to take their car take their car, and now there is one car for every two people in urban areas.

The result in California is that public transit carries a low percentage of the travel in its market. The regional surveys show the transit share of person trips to be 5.9 percent in the San Francisco Bay Area, 2.2 percent in the Los Angeles metropolitan area, 2.5 percent in the Sacramento region, and 1 percent or less for the remaining 48 public transit operators in the state. (A narrower focus on the center-city counties of these regions would raise these percentages but, in most cases, not double them. For example, as estimated by the

California DOT publication, DMT Trans Guide, Los Angeles County would have 4.5 percent; Sacramento County, 3.5 percent.)

The typical Californian simply never uses transit. This was confirmed in a 1277-household survey conducted in the Sacramento metropolitan area in April 1975. The survey, designed by DMT in cooperation with the Sacramento Regional Area Planning Commission and the Sacramento Regional Transit District, is especially reliable because of the ability to cross-relate the data with a survey conducted in May 1974. Eighty-five percent of the households surveyed reported that their members never use transit; only 9 percent had a member who used transit frequently and that member was as likely to be the offspring of the household as it was its head (2). Incidentally, similar results have been found in a national study. A representative survey of Americans made in 1970 found that 82 percent of the males in the survey never used a bus for travel. Among those who had bus service available, 75 percent of the females and 87 percent of the males chose to use their car every day, and only 6 percent of the females and 5 percent of the males used a bus every day. Of those who used a car every day, only 1 percent also used a bus every day (3).

In effect, transit serves a market segment, but it is exactly the worst segment from a marketing perspective. In California, as is the case across the United States, choice riders have been a distinct minority. Few people with car keys in their pocket seem willing to hitchhike on a system primarily intended for the disadvantaged. Outside of the commuting periods, 85 to 95 percent of the riders on a bus are there because they have to be there. Many have low incomes; they have exhibited their inability to pay the full price of the service. Therefore, revenues never meet costs, and the industry is always faced with the need for outside funds.

Ridership, of course, will be affected by marketing practices. The experience in California over the last year was that public transportation increased ridership 23 percent through the use of promotion and improvement of the standard bus service. But the danger is that transit can learn to advertise, adopt modern graphics, establish new staffs for information and point of purchase sales, and become technical about consumer surveys and still have to sell its product below cost to a limited population and rely on funding from a car-owning majority that is often personally indifferent to transit's fate.

#### Tentative Political Support

There are those who argue that a useful service at low (or no) fare can survive because the public realizes the benefits from a reduction in energy use, road congestion, and pollution. It is true that current support for transit results from widespread disaffection with these consequences of the automobile. A 1974 survey in Los Angeles County, for example, reports that 73.5 and 79.7 percent of the respondents feel smog reduction and rush-hour traffic relief, respectively, are good reasons to support rapid transit (4). Of the respondents in the 1975 Sacramento survey, 75 agreed with the statement, "The Regional Transit bus system makes this community a better place to live" (2).

However, the surveys also show that this support for transit is based on beliefs not firmly held. On the traditional attitude scale of one to five, strong agreement to strong disagreement, with three indicating neither agree nor disagree, the median response was 2.58 to the statement, "The use of buses for public transit improves the air quality in the Sacramento area. The

opposing statement, Buses help make smog conditions worse in the Sacramento area, earned a 3.34 median response. Although 65 percent of the respondents agreed with the statement, The Regional Transit service ought to be considered a public service like libraries, schools, and parks, none of the proposed financing methods got a ranking of satisfactory except for fare increases to match service improvements. Increases in property taxes ranked last (2).

Presumably, the public will begin to gain accurate information on the impact that transit's growth has had on their communities' experience with pollution and traffic congestion. When those data are produced, they will probably show that a transit ridership equaling 2 to 6 percent of an area's travel has relatively little impact on pollution, particularly when so many transit riders do not drive anyway. Simultaneously, those most concerned with the ecology will have reduced their own guilt feelings by switching to smaller cars with expensive emission controls. And the everyday effect on rush-hour traffic from incremental increases in support for transit is difficult to perceive. In fact, the median ranking from the Sacramento survey on the statement, Buses create traffic congestion on downtown streets, was just barely on the disagreement side of neutral at 3.33 (2).

Increasingly, the philosophic reasons for support of transit in the abstract will return to the concept of welfare for those who do not drive; we think that that is not reason enough. (Even the energy issue seems most easily translated in the public's mind to concern over the ability of low-income people to travel, given no interruption or control over gas consumption.) This is a matter of constituencies. Transit, or any government agency, cannot prosper if its primary benefits flow only to the disadvantaged. This is evident when we examine the continuing situation of the other welfare agencies, the poverty program, public clinics, and the rest. Transit itself experienced the same bitter dynamics during the periods of the 1950s and early 1960s and could again experience them.

Thus the key to the future course of public transportation is the production, in view of both the economic and political markets, of real benefit for the majority, those who rely routinely on their automobile for travel.

#### **IMPORTANCE OF MARKET SEGMENTATION CONCEPT**

One of the appeals in the marketing orientation to transit is the possibility of altering the circumstance of the industry both financially and politically. A number of specialists raised the importance and policy consequences of industry adoption of the marketing practices so prevalent elsewhere in the economy. We think that the most significant lesson to be gained by public transportation from its experience with marketing is the concept of market segmentation.

Market segmentation is the process of designing (or featuring) a product or service that will make a particularly strong appeal to some identifiable subpart of the potential market. The process is as much a strategy of exclusion as it is a focusing on particular customers because a specialized offering (or campaign) tailored to a particular group will tend to reduce its appeal to other groups. In that sense, market segmentation is a set theory problem: how to delineate the characteristics that will define a group of consumers that can be profitably served, given their differing abilities to pay and the cost functions of production, distribution, and promotion.

Such calculations of the economy are now typical. At the early stages of all industries, the efficiencies in producing a standardized product for the public market

ruled. It was not surprising that Henry Ford was reported to have said, "Give the customers any color they want, so long as it is black." But most producers of consumer goods began to shift toward a practice of differentiation between market segments.

The process is described as follows (5):

Marketing managers have always had to cope with the heterogeneity of buyers. As society becomes increasingly affluent, as discretionary income allows this heterogeneity to be more fully expressed, the problem of determining useful typologies of consumption patterns has attained paramount importance for marketers.

The result of the process was commented on by Smerk (6): "No well-managed firm will produce a product or service for which there is no demand, regardless of how well and efficiently it can be produced."

Public transportation is the last major industry to attempt promotion of a standardized offering to its entire potential market. That is, as marketing has begun to have influence on the industry, most properties have chosen to emphasize their characteristics as a system, promoting and standardizing, with new graphics, the ubiquity of the standard bus service offered at a uniform exact-change fare. The strategy has not been particularly successful. In California, at least, the net effect has been to increase the requirement for operating subsidies for increased peak-hour volumes at reduced below-cost fares.

Thus, it is likely that marketing people becoming familiar with transit will suggest opportunities for specialized services for particular market segments not now drawn to transit. The marketing profession is oriented to differentiating segments, and there are a number of industries in which a shift to a segmentation strategy enabled a firm to recover from a poor market position.

The cafeteria and motion picture industries, for example, both lost their primary businesses and were left with residual markets with no profit potential. In fact, their residual business was much like transit: People had no private alternatives (kitchens or televisions) and were unable to pay their share of the costs of the business when volume was reduced. Both also suffered from the peaking phenomenon that is so expensive in transit operation. These industries decided that their only course was to reattract the mainstream markets. Although still providing a low-cost product needed by the disadvantaged, they introduced new quality products that could earn a premium price (7).

We think that transit can and should follow the same course. Public transportation has the responsibility to serve the disadvantaged and others not able to travel by automobile. But, given the economic and political requirements, the industry should recognize that its useful low-fare service serves only one of the market segments that can be attracted to transit. Most important, new market segments need not be constrained by the present uniform fare. Most Californians live in a world where \$0.25 to \$0.35 will just buy a cup of coffee. A quarter is almost throwaway money and is certainly no reason to go out of our way for an unattractive service. But a fare of \$0.75 to \$2.00 might well be charged for a high-quality service. Such fares and the increased clientele would, of course, change the whole economic structure of the industry. Already, California transit properties are offering specialized or premium-price services.

There are other examples in the private sphere, such as the club bus, airporter service, and vans dedicated to shuttle service for particular firms. Transit people, and indeed most innovators in marketing, tend to think

of these specialized offerings as exceptions to the rule. In fact, they are the possible future for public transportation.

Specialized services have not yet taken full benefit of the potential for premium pricing through a tailored appeal to an affluent segment. We think that such a change will only be accepted by the industry if it is the consequence of a marketing orientation. The politics of transit support have been debated for so long that no one can now argue for a new transit role based on policy. But an opportunity to create new markets might be heard and tested, and this could lead to industry experience with larger revenues and a more extensive political base. It is this result that makes marketing and market segmentation so important.

## DIFFUSION OF INNOVATION MODEL

Everyone does not accept even a good idea at the same rate. There is a process involved, much like the process we see when a new product is introduced and gradually penetrates its market. Mainstream people will wait to endorse the marketing concept in transit, as they waited to accept the Volkswagen Beetle, until the idea has first been tried by adventurous trendy people and then until it has been further tried by people like themselves. It must be clear that the adopted pattern is consistent with their aspirations and identities.

Today, Volkswagen owners identify themselves in surveys as more conventional than their neighbors and as less willing to try new products that have not yet been proved. Someday, the transit industry could view marketing as a routine, conventional part of their business. The result will come about in steps, and government can best assist if its efforts are matched to the appropriate stage in the diffusion of the new idea.

Sociologists have constructed a model of how change spreads in society. The diffusion of innovation model categorizes the people adopting a new idea or product into groups displaying different motivations and needs (Figure 1). As related to the marketing concept for transit, these are: innovators, early adopters, general acceptors, and the mainstream.

### Innovators

Innovators are the first to experiment with a new idea: those who imported the first Volkswagens, built their own waterbeds, and first raised marketing in a transit context. Innovators are few, but members tend to know of each other's activities as indications of what is new. The fun for innovators is experiencing the new idea (the new product), directly seeking the changes it makes in their lives, and receiving recognition as a pioneer. When the innovation begins to become predictable, innovators move on to new territories.

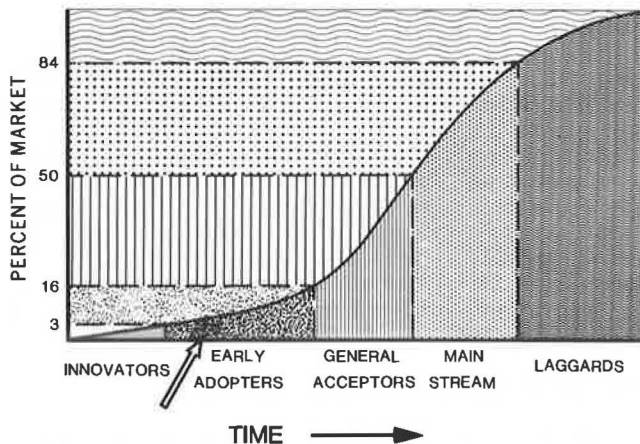
Innovators must be either affluent or otherwise independent of peer pressure so that they can take risks in trying new things. Most of us cannot experiment with products or ideas that might jeopardize our work status and income. Thus it is not surprising to note that the innovators of the marketing concept in transit have by and large been academics, people whose livelihood is outside the industry. But their capability of raising ideas as trial balloons encourages the entry of the next group.

### Early Adopters

Early adopters take an emerging idea and integrate it into their life-styles and perceptions. Most of the people now concerned with marketing in transit are early



Figure 1. Diffusion of innovation model.



adopters. The fun of being an early adopter is in dealing with an idea (or product) that has been tested by the innovators. There is a much lower risk in being associated with the new thing, but a full sense of being identified with what is new and exciting. Early adopters are essential to the process, however, because they display how an idea or product fits with an established life-style. Early adopters pay attention to removing contradictions brought about by a new idea and are more likely to investigate how transit marketing can be integrated with operational patterns and the realities of customer attitudes. This work is essential because it establishes a basis for the next group.

#### General Acceptors

General acceptors also think of themselves as progressives, but they have the task of fitting a new idea into what is probably a more rigid life-style and less tolerant environment. They take their cues from presentations in the media that show that a new product or idea is worthy, understandable, and nonthreatening. For example, the appearance of commercial camper sites along most major highways permitted acceptance of recreational vehicles by the general acceptors. When the transit industry begins to request marketing specialists in the management structure of a transit property, one can expect that the concept of marketing outlined by early adopters is being considered by general acceptors, whose roles are to carry an idea into the established structure.

#### The Mainstream

At some point, the new idea or product has been accepted by the majority as typical practice. The diffusion of innovation model describes yet later groups, late adopters, or laggards. These groups tend to feel they cannot afford the social, political, or economic cost of experimenting with nontraditional concepts, so they wait, heavily bound in their commitments by institutional traditions. Their existence is the reason some organizations maintain the status quo in spite of changes taking place in other similar organizations.

#### Stages of Acceptance

The sequence in the diffusion of innovation has been most elaborated by persons concerned with the marketing of new products. Research, for example, has been done on the rate at which credit cards, color phones, or

the push-button dial have been adopted in the community. Application of the model to the emergence of marketing in transit does stretch the point somewhat. This is even more true because the marketing concept is fully developed in other sectors of the economy.

Because marketing is so prevalent an idea, most people think they know what marketing would mean in the context of transit. The only valid role for innovators is to mention marketing and transit in the same conversation and then quickly make it known that the small change in the more traditional practice of transit management will soon be enlarged by early adopters invading the transit field with the new perspective.

The early adopter stage will similarly be shortened simply because all of us are so familiar with advertising, pricing strategies, market research, and the development of new offerings as they are used with other products. Early adopters will be responsible for adjusting an already established technique to transit rather than for working from an initial concept.

Nevertheless, the diffusion of innovation model tells us that transit will adopt marketing practices only through a process involving stages of acceptance. Each stage will have a distinct flavor and a unique group of enthusiasts. The overall pattern will be that more conventional groups will replace the experimental as, in turn, the controversies that restrict still wider acceptance are resolved. And the resolutions in each stage will not be challenged in the next.

Thus we can expect that public transportation will first debate and test the concept of marketing, then its techniques, then how marketing specialists should be included in a transit organization, and finally how marketing practices can be performed routinely. Only if the industry reaches the right decisions at each of these stages will the marketing concept make its full contribution to transit.

#### OBJECTIVES FOR GOVERNMENT ACTIVITY

In the transit industry, marketing is now being accepted at the early adopter level. People are attracted to the marketing concept because it is new and exciting. It is a subject defined as appropriate for a person dissatisfied with the status quo. But we have not yet agreed about what marketing means in a transit context. Some speakers use the word marketing to justify expansion of the planning function, others hope promotion and consumer education will build ridership served by existing lines, and others argue that a marketing orientation should lead to the creation of new services from a profit-seeking viewpoint.

These differences in objectives and understandings are characteristic of the early adopter stage. This is the time when the industry tries out the new idea, adopts it to the circumstance of transit properties, and reexpresses the marketing concept in transit language. If this work were not done, marketing could not be accepted by more conventional people in the industry. Marketing would remain an idea for the future whose relevance was not seen in day-to-day practice.

But the early adopter stage is limited in time. At some point the people first drawn to an emerging idea finish their work and move on to another area of exploration. The idea has been discussed and debated until the subject becomes boring, worn out, and abandoned. In transportation planning, for example, the early adopters have long ago left the subjects of modal-split models and citizen participation. These matters are now being used by the more conventional groups in the diffusion process. This means that this work is carried out routinely and

with less imagination and that we cannot go back to challenge the now-established assumptions in these subjects. For better or worse, the results of the work performed when the subjects were first introduced must now be the basis for all further work in that area.

This is why we think the movement of California DOT toward segmentation will be most encouraged if early adopters of a marketing viewpoint in transit also accept the following key ideas:

1. The marketing concept includes the creation of new services tailored to the needs of different market segments.
2. Each service will have different characteristics and different prices. Vehicles, scheduling, interior configuration, and fare levels are some of the variables to be determined from market research.
3. The only potential growth market for transit is among the mainstream affluent persons who already own cars. Transit planning for the captive rider is only one segment, but this is vital to the community welfare.

If the transportation industry does not confront the possibilities for premium-fare services aimed at the affluent car-owning market segments in the early adopter stage of marketing concept acceptance, it never will. The industry's disposition is to accept the role of a subsidized provider of useful service to the disadvantaged. When current campaigns to sell that service to the affluent fail, as they must without quality improvement, the industry will be stranded again, but, if we are skillful in managing the process, we may be able to avoid this. There are specific things government can do to encourage adoption of a full marketing ideology in transportation.

#### CALIFORNIA TRANSIT MARKETING PROGRAM

To ensure that these ideas become generally accepted, the DMT program is shaped to support those people in transportation who are already introducing marketing practices. The expected pattern is that DMT activities will encourage early adopters to endorse marketing, and stimulate them to apply marketing techniques, particularly those suggesting market segmentation, to the transit context and to produce instruction manuals, standard procedures, demonstration projects, and training sessions to consolidate work already performed. The purpose of this latter activity, of course, is to prepare for the transfer of proved techniques to the next group and thus release innovating personnel to more experimental endeavors. The leading example recently has been the consolidation of work done on telephone information centers; the Urban Mass Transportation Administration is now performing a similar function in sponsoring a transit marketing management handbook (8).

There are three current directions in transportation: creating images of the possibilities for transit, assembling the materials that early adopters can use on their respective jobs, and generating decision-making tools built about the strategy of market segmentation.

Thus, DMT, often with regional transportation planning agencies and universities, is designing and arranging workshops that highlight marketing viewpoints. These provide a platform for innovators in the field and help convince early adopters that the transit business can concern more than the production of kilogram-kilometers. In an aligned effort, DMT is assembling printed examples and slides of different types of service and their characteristics including price. Transit-like services provided by private parties (e.g., commute clubs) are par-

ticularly useful as illustrations.

A game teaching transit use has also been developed for public school systems, and the basic format is transferable to the varied cities of the state. Deliberate introduction into popular media of the concept of quality service for premium fare is also being explored to stimulate consumer support. Such a campaign would emphasize both simple price differences and innovative ideas of new buses.

With regard to segmentation, DMT has assembled demographic data that suggest patronage opportunities among market segmentations in many of the urban areas of the state. The information displays categories of income, trip purpose, life-style adherence, and life-cycle placement. The information is available in a California DOT publication, DMT Trans Guide, which is distributed to all transit properties and related agencies in the state, includes various types of marketing information, and is periodically updated.

Most recently, DMT, the Sacramento Regional Transit District, local California DOT district personnel, and consultants under contract developed and managed an attitudinal and on-board survey project. The method was based on the use of similarity (preference) mapping of market segments developed by market research specialists. The survey has already yielded useful policy information, although much of the cross tabulation and analysis is not yet complete.

The questionnaire forms and their coding, computer programs, and cross tabulation methodology were designed to be applicable to most urban areas of the state. Thus, DMT is documenting the procedures for publishing in a marketing instruction manual and is duplicating the software for use by other agencies. It is expected that the tool will serve both as model and training instrument for transit operators and as a basis on which operators and transportation planning agencies can derive transit market plans that emphasize segmentation strategies.

Thus, the California program is designed to match the existing stage of marketing acceptance. Different activities will be required at different times; the division feels that market segmentation should be primarily emphasized now because it is the key to the recovery of an industry so long beset by financial difficulties. A secure recovery will aid the cause of balanced transportation.

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