

SEMINAR ON RESEARCH NEEDS IN TRANSIT MARKETING

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For various product categories, one can collect data that describe the behavior of various groups of consumers in terms of average purchase rates in a given segment of the market. These data would provide an answer to our first question, that is, Who buys the product? The second question, more difficult to answer, is, Why do they buy the product? At this stage in the development of marketing we would like to know why people behave as they do, why they make one choice as opposed to another choice. Not much, however, is known about this subject.

One approach to solving the problem has been developed recently. It consists of studying specific properties of the product and measuring consumer attitudes with respect to those specific properties. If toothpaste is the product, for example, the consumer's conception of the toothpaste's properties, as they concern such things as decay prevention, teeth whitening, and taste, would be studied in order to determine the relative importance of each property. For example, how important is taste relative to teeth whitening or relative to decay prevention? How do consumers perceive the alternative brands with respect to each of those properties? You could think of this also in a public transportation context. What are the relevant properties of public transportation from a consumer's point of view? How important are properties such as convenience, speed of travel, and price? How are the alternative forms of transportation perceived by consumers? This approach might provide data that can be used to modify a product or to give consumers information through advertising.

Work in marketing has been extended to look at choice as opposed to just preference; however, the problem is somewhat more difficult. It is more difficult to predict what consumers will actually do than to determine what they say they prefer. Nevertheless, we can make significant predictions of what people will do, i.e., their choices, with information of this type, i.e., the perceptions of the individual attributes of the product category. It is possible to determine something about what consumers want with respect to individual properties of products. This has been done with automobiles, industrial equipment, and airline travel. The marketing problem then is to try to adapt the resources to satisfy consumer wants. First, the consumers' needs must be determined, the properties of interest identified, and the motivation understood. Then this information must be translated into action.

Product satisfaction is a category of some importance in terms of initial purchase. There is also the issue of the repeat purchase. Basically, I think that most marketing professionals believe that it is possible, if enough money is available to spend on completely new ideas, to induce initial purchase. However, repeat purchase is much more difficult to obtain and predict because it depends crucially on the consumer's experience with the product. Consumer attitudes and perceptions of the properties of the product are critical, and ultimately experience is a more important determinant than is marketing. Advertising cannot overcome a poor product or a product that consumers do not like. Therefore, if you have a fixed product, it is very difficult, if not impossible, to modify consumer attitudes without changing the product. The product itself, not advertising or marketing, is of primary importance.

SEMINAR DISCUSSION

Heathington:

Let us assume that I operate a public transportation system and that I wish to improve service, for example, by increasing the frequency of headways and by purchasing new equipment such as air-conditioned buses. Should I promote the new service before it begins operation? Or would such promotion be self-defeating (if new customers find the old service discouraging and quit before operation of the new service begins)?

Bass:

A railroad is now offering service to Florida whereby the passenger can ship his automobile on the same train that he rides. This service has been so popular that the railroad is unable to meet the demand. As a result, the railroad is running an advertisement that informs the public of future increased capacity of that service. Quite often early demand is underestimated in a new service. Then if the product succeeds, another type of mistake is sometimes made; i.e., the potential market for the product is overestimated.

Maxman:

In Louisville we initiated an express bus service from the south end. For a couple of weeks prior to the beginning of the new service, we advertised by means of public service and news reports on radio and in newspapers. We also distributed pamphlets and schedules and put up posters and signs to make people aware of the new service. We found that ridership increased on the existing service, especially the day before the express bus service began. In the morning about 600 people per day utilized the existing local service. The day before the express service started, the number went up substantially. The express service, which has only been in operation for about 2 or 2½ weeks, has added approximately 100 new morning riders to our patronage. It seems as though marketing has helped in making people aware of transit service.

Bass:

Where consumers have an awareness of a product category, they generally think about the product even if they do not purchase it. There are a few examples where clever advertising has in fact rejuvenated the sales of a declining product.

Couts:

Some of the attributes of transit trips are door-to-door time, walking time, number of transfers, waiting time, cost, and comfort. An important difference between transit and grocery products, though it might not be a complete distinction, is that with transit the product defined by these attributes is different for everyone. For example, walking time to the nearest station depends on where the individual lives.

Bass:

Are you measuring consumer perceptions of these properties?

Couts:

We use revealed preference rather than attitudes. We determine the locational characteristics of consumers, the reason for trips of various purposes, and demographic facts.

Bass:

So you know who your customers are and what their behavior is in terms of the extent to which they use the service.

Couts:

Yes, it's what they do that we take as being expression of behavior, not what they state their preferences are.

Millar:

Dr. Bass, is there any general relation between consumer preference and consumer choice?

Bass:

If the preferences of the consumers are known, one can make statistically significant predictions about their choices. The accuracy of the prediction varies from product category to product category. In general, for product categories in which consumers' attitudes differ very little among alternatives, predicting individual choice based on preference measures is very difficult.

People do not necessarily always want to do the same thing. There is a stochastic element to choice behavior. For those product categories in which the stochastic element is greatest, predictions based on preferences are not very reliable. A much better job of predicting can be done if one takes as a measure of choice the relative frequency of purchase or relative frequency of choice over a given time span. If one has measures of preference that are scaled such that it is known how much more "x" is preferred to "y," then a fairly decent job can be done of predicting the relative frequency with which "x" is chosen as opposed to "y."

Hobeika:

In my opinion, there is an inherent disadvantage in marketing public transportation because we are offering a product to consumers who differ in tastes, wants, and willingness to pay for the product. Should we divide the market into different groups of consumers and then try to meet each group's demands with different products at different prices?

Bass:

Yes, this was part of the idea that I wanted to get across. It seems to me that our current viewpoint with respect to marketing transportation is perhaps a bit narrow. I think that you are suggesting that it might be broadened a bit. I wonder to what extent it might be possible for public transportation agencies to have different products. For example, I wonder why public transportation companies do not get into the rental car business. Such a system is working in France.

Bingham:

Suggestions of dial-a-bus service are made from time to time. The rental car concept in the context of public transit is new to me. Perhaps the reason that we have not pushed in these areas of service is that the primary job of transit is to move large numbers of people in areas of heavy population concentrations. I am admittedly thinking in terms of large urban areas. I am not thinking of, for example, Lafayette.

In the large urban areas we have not felt, at least up until this time, the need for something other than a conveyance that can accommodate a large number of people generally going in the same direction. There has been some discussion at this conference of at least two of the immediate needs of the transit industry, retention of current passengers and conversion of automobile users to transit.

What will we have to do to achieve this? We will have to change the ride that we are currently providing in one manner or another. I submit that we are willing to do that but that we do not have sufficient information on which to base a decision.

Bass:

It seems to me that the problem is basically one of a shortage of customers. Those who are not using transit are basically rejecting the product.

I do not believe that marketing can be effective in the long run if the product itself is not changed. One must start with a knowledge of the consumer, what he wants and what his alternatives are. For example, whether to put on a new train for a certain area at a certain time depends on the market demand, which is a very specialized kind of knowledge that probably is only attained after the service has been made available.

Bingham:

This is an approach we have been using for some time. Based on public response, through phone calls or letters, and patronage, we decide whether to retain the service. However, this is not the best form of research. To justify experimental efforts, especially with the use of public funds, we need more information on which to base our decisions and with which to persuade policy-makers to cooperate.

Bass:

Collecting such data is a very difficult job, particularly when there is no opportunity to simulate service in an experiment. People do not always do what they say they will do. In product marketing, for example, only 20 percent of the new products introduced are successful, and there is a lot of commercial research that precedes the introduction of new products. So the fact is that, even with a great deal of money and considerable expertise, the success rate of new products is not very great. You can certainly get information that will be suggestive of success or failure, but I think it's asking too much to expect that information to be extremely reliable. This is especially true with regard to train service, where experimentation is limited.

Heathington:

Let's look at the differences between marketing public transportation and such products as television sets. A television manufacturer may market a whole series of sets from the large cabinet model color set to the small, relatively inexpensive, portable black and white set. Each part of the line of sets is aimed at a different group of consumers of the product.

We have a different situation in the transit industry. The philosophy of the industry in the past has been to not offer a wide range of public transportation products to meet the consumers' needs and desires.

About a year ago General Motors studied cost models for supplying certain levels of service. We found that we could make a profit with a dial-a-bus type of activity. The level of service would be very high, but the number of people served would be very small and the price for the service would be very high. If we tried to perform the usual function of public transportation, that is, move a lot of people, we would lose a lot of money. We could move a lot of people, but to attract a large number of people to the service the price would have had to be low, which made it impossible to meet costs. The dial-a-bus service has a high level of service but also a high cost.

What makes marketing difficult in public transportation is that we are attempting to meet the demands for transportation of the whole market by using a single product line. The market contains groups having a wide diversity of transportation needs, yet the transit operator is constrained by the group that can only afford to (or is only willing to) pay for low-cost, low-level service.

Hill:

I think that the transit industry's big problem is in the type of service that can be merchandised to the so-called mass category of riders. The industry does a relatively good job in certain locations of merchandising separate features of service that constitute really a small part of the total program. For instance, in San Antonio we operate successfully a Grey Line franchise. We also have sight-seeing services that are rendered in various fashions. For charter service, we operate special vehicles with baggage compartments to handle certain group movements from the airport or from military bases. These categories of service have been used in other places profitably, but the big problem is to attract the mass rider. Providing service to the mass rider is what constitutes the backbone of the business. Our problem is competition with the automobile and its convenience and accommodation.

Bass:

If the product's function is to move masses of people, the question is how can that product be modified? What services can you offer? And how can you make that product

compete with the alternatives? I think you can get information about this by studying consumers. In the end a product is going to be accepted on its merits.

Stoner:

Is marketing the short-term answer to the transit industry? For instance we do have a transportation industry that has a great deal of product differentiation at this time. However, even if we improve transit service to the point where there is little product differentiation between automobile and transit, will this be enough? Does the automobile industry so control the demand for transportation that we must aim our marketing efforts only at the captive rider and not attempt to gain new riders?

Bass:

You have a great deal more confidence in the ability of demand manipulation than I do. I think that the public's choice of transportation mode is not influenced so much by advertising as it is by the experience of the consumers.

Your last point was that the market is being shrunk to the point where the only people that use public transportation are those that do not have alternatives. Is there anything that you can do by way of advertising to induce people that do have alternatives to use the service? The answer is that you can get their attention and perhaps get them to try it, but ultimately whether they continue to use it is going to depend on their experience with it.

Heathington:

In the Watts area in Los Angeles, California, after the riots a few years ago, a public transportation system was instituted to enable people in that area to take advantage of job opportunities. As soon as their income went up, they purchased automobiles and they no longer rode public transportation to work. Apparently the level of service on public transportation as perceived by the workers in Watts was not of the quality to attract them to be permanent riders. The level of service provided by public transportation is going to have to change if new riders are going to be attracted to the system.

Herman:

In reference to the need for transit research data, the transit industry lacks the funds necessary to gather significant information. For example, the interrelation of product attributes (and their effect on ridership) needs to be studied further.

Craig:

We provide a product that is a service not a commodity. In looking at how we should market transit, we have to recognize that it is a time-oriented product. A person decides among transportation alternatives at a specific time and place.

We probably have a small number of captive riders on our rail transit system. Because our riders and potential riders have alternative modes of transportation available to them, we are now carrying one-third the number of people that we carried in 1927. I think we have to kill the captive-ride myth. Of the 145,000 daily rides that are made on our system, I doubt that more than a few thousand are made by captive riders. The remainder of these rides are a result of the public choosing among alternatives.

We are trying to make the option of public transportation preferable to more and more people, and we have been reasonably successful. We are now carrying 15 percent more people than we were 4 years ago with almost no changes in the geographical coverage of the system. We have a new fleet of rapid transit cars, and our fare structure has remained stable. Another factor in our favor has been that the privately owned transportation carriers have raised their fares.

Bass:

Apparently, the appropriate number of potential transit users is known. These are people who have rejected transit on the basis of prior experience. The best evidence indicates that the way to deal with these people is to get them to have experience with

the improved public transportation product. In other words, have them sample the product again.

One possibility is to offer free transportation for a week. This is rather an obvious idea, but the public's experience is really what counts. If the consumer is satisfied with it, or likes it relative to the alternatives, then the consumer will choose to utilize the service. Another possible marketing device for public transportation is to try to identify potential consumers who do not have recent experience with public transportation and induce them in some way to try it.

Heathington:

Are transit companies currently using ideas such as the fare-free ride to induce patronage?

Bingham:

At the present time, we have arrangements with all the Welcome Wagons in our area. When a representative calls on new residents, he gives them literature on public transit including route maps and several free passes. Although we do not have a mechanism for determining the reactions of new residents to transit, many free passes are used. It is a good program, but we are unable to support this opinion with facts and figures.

In the past, we have worked on improving transit and then attempting to promote it through regular advertising channels. Our ridership has gained appreciably during this period, but there is still room for much improvement. We need to do more research on the transportation needs and desires of the public.

Hill:

We contact each residence or traffic generator that is located within a quarter of a mile on each side of the route of a new service extension. We provide the resident or generator with a map of the system, a schedule of fares, and 2 free tickets. Although this has had a good effect, more needs to be done in promoting the availability, attractiveness, and convenience of the service. We must also get cooperation from the various highway programs.

Morlok:

It seems to me that there have been a number of trends during the past 20 years that have influenced greatly the demand for transportation. One of these trends is the increasing decentralization of land uses in urban areas. The older centers of cities have essentially remained static or dropped in total population and in total level of activity. Most of the growth has occurred in rings around the center cities. Secondly, the amount of travel to and from central business districts in most cities along radial routes has remained virtually constant since World War II. In small cities this is no longer the case, but this holds true in the larger SMSA's. In a few, the total amount of travel to and from the central areas has actually declined.

Along with this central constancy in the number of trips to and from central areas, there has been a change in the time pattern of those trips. There are far fewer trips now spread throughout the day, and most of the trips are concentrated during the peak hours. However, the bulk of the travel increase has really been in a very diffuse pattern throughout urban areas, with people originating in a suburb and perhaps going to another suburb or going to a place not in the central business district. It is this type of trip that transit has not been able to accommodate or capture, especially in large cities.

It seems to me that, unless we try to provide public transit service for the diffused pattern of trips, we are faced with trying to capture a larger and larger fraction of essentially a static market that is declining in importance in urban areas.