

*Management Support:* Again, top management must offer its support. One way to get this support is to have demonstrable success of past research efforts. If a manager can come in and can say, "You know, we did research and got this information; we made this decision and, look, our decision was better because of the research," top management will start to believe.

*Quality Research:* It is important to focus on appropriate, quality research. Not just on-board surveys. Not just telephone surveys. Not just focus groups. Identify the need and understand what each type of information different methodologies and each type of design.

*Involving the Right Players from the Start:* One way to insure quality research is to get the research function involved early on. Often, a transit manager will design an entire research project before involving the actual researchers. When this happens, the researchers -- be they internal or external -- lose the necessary synergy and the ability to provide some objectivity in using research to help solve a given problem. The lesson is: Involve the research function as early as possible in the decision process. Make them part of the team.

*Commitment of Resources:* High-quality research costs money. If you spend less, you invariably get less. Transit managers must realize that, even in today's cost-cutting environment, market research is money well spent. In fact, it often yields information that can help lower costs.

*Flexibility of Research:* Finally, to get all of this to happen, transit has to be innovative and flexible. Managers and researchers have to understand what is happening in their environment and when market research or a particular method is appropriate and when it is not appropriate.

## Conclusions

Transit faces major challenges. To meet these challenges and succeed in the years to come, transit managers should focus on:

*Retaining Current Riders:* Transit agencies should focus on ridership retention. It is very expensive to replace lost riders. Transit cannot expect to keep customers forever, but it can and should focus on retaining people for a long period of time. Ridership acquisition is important, too, but in some ways it is actually easier to achieve.

*Adopting a Customer Focus:* Transit must adopt a market orientation and have a customer focus. Many transit agencies have implemented customer service initiatives and taken a customer focus. But they should take it one step further and recognize that they are operating in a broader environment than simply providing transit services. They are in the mobility market and that means that they are competing. To succeed in this larger, competitive reality, transit agencies must use market intelligence. This includes not only market research, but, in fact, all information.

*Integrating Market Research throughout the Agency:* Finally, transit agencies must develop an integrated market research effort. Agencies need not do research for everything or all the time. But they should think about market research in problem-solving and strategic planning and have a familiar and tested program that is integrated into their organizational and functional structure.

## MARKET RESEARCH AND SERVICE PLANNING

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Like many transit agencies, Houston Metro traditionally uses market research for evaluating advertising effectiveness, rounding out marketing campaigns, etc. More recently, we've started using market research more for the design of transit services — that is, deciding what we are going to put on the street.

We have begun supplementing traditional transit planning tools with market research, both quantitative and qualitative research. We recently added focus groups to our research mix. With them, we can bring in potential users of a service, lay out what we are thinking about, and get a lot of depth and feedback not normally available with a survey instrument.

### Case Study: Texas Medical Center

The Texas Medical Center (TMC) is a major activity center for Metro, employing about 50,000 Houston residents, and is second only to our central business district in terms of employment and activity. In fact, it is one of the largest health care centers in the world.

This case study considers one bus route serving the TMC. This route initiated at two park-and-ride lots, made some local stops, and stopped at a third park-and-ride facility before arriving at the TMC. This route was on Metro's list for potential discontinuation due to poor ridership. In talking with the employers at the TMC, it was agreed that Metro would do some research and see if there was some unmet potential demand to consider before discontinuing the route.

### Initial Survey of TMC Employees

We mailed about 13,000 surveys in this corridor to people who work in the TMC. With that concentration of people working in the TMC and living within 10 or 11 ZIP codes, we believed that we could come up with a service that would do fairly well for the area.

Some of the key findings of the survey were as follows:

- transit holds about a 13 percent share in terms of work commute mode choice in this market;
- of that 13 percent, about 21 percent were using the route in question, the 196 Westwood/TMC Express. In other words, only about 2.5 percent of the people living in this corridor who worked in the Texas Medical Center were using the 196; and
- there was about a 26-minute average commute to work, in the range where transit starts to become attractive.

People participating in a survey often will overstate their intent or likelihood to use a product or service. To avoid overstatement of intent, we assessed how burdensome the respondents' commute is by asking them a number of questions and asking them to rate each factor on a scale of one to five, one being "no problem at all" and five being "very major problem." We then rolled up scores for each factor into a single factor which we call the *commute burden*. About three percent were in the high commute burden range and 27 percent in the moderate commute burden range.

We wanted to be very straightforward so as to not overstate likelihood for transit use. The survey noted some of the things riders might encounter when riding a bus to work. For example, it noted that riders would have to walk to a bus stop, pay some out-of-pocket expenses, wait longer than they sometimes might want to, and might experience longer travel times to work. The survey measured people's concerns with these four variables and combined them into a single factor. Results indicated that about a fourth still expressed a high willingness or moderate willingness to use public transit. As this total was higher than our current transit market share was in this corridor, we were not quite ready to give up the route.

The survey revealed that four far western ZIP codes indicated a significant willingness to use public transit with a calculated commute burden about four to five times higher than what it was for the corridor as a whole. Based on this research, we concluded that Metro should try to get a larger share of a smaller market rather than getting a small share of the larger market.

### Follow-up Survey of TMC Employees

We undertook a second survey, focusing only on the four western ZIP codes. Utilizing a telephone survey conducted among TMC employees living in these ZIP codes, we collected information with which to design a service that they would find attractive. We tested a series of components that would go into a new service, including travel time, frequency, and fare.

Conjoint analysis yielded a series of utility scores; the higher the score, the more attractive the service. In this case, a nonstop service that ran every five minutes and only cost 80 cents was the most attractive service. Of course, Metro could not even begin to afford to provide that type of service. At the bottom of the utility scores was a local service that only had a frequency of every 20 minutes and cost \$2.20. We felt that within these bounds we could design a service that was closer to the middle utility scores and that would still be attractive. A nonstop, 15-minute peak service finished near the middle of the utility scores.

One of the most useful features in conjoint analysis is the ability to hold constant some of your variables and then take a look at one of the other components. In this case we held service amenities constant—a nonstop, peak hours, 15-minute frequency service—to determine fare sensitivity. This analysis demonstrated that we get absolutely killed when the fare goes over the \$2 mark. Unfortunately, this service fell into our \$2.20 fare zone. But, with various subsidies that employers offer and through the discount Metro offers large employers who sell prepaid fare media, we could get the trip cost down to the attractive \$1.80 range.

### **From Research To Action**

As a result of the survey, a new service, route 292, was born. This service is staged from a well-lighted, secure park-and-ride lot. This lot has direct access to a high occupancy vehicle (HOV) lane, so the buses never mingle with surface traffic until reaching the TMC. Even though the new 292 route is longer in distance than Route 196, we cut 12 minutes off the travel time of the old route by having it use the HOV lane and eliminating the local stops.

We depended heavily on direct mail to promote the new route. The TMC institutions either mailed brochures for us or provided mailing lists for us to use. Research told us that we were going to have to sell the fact that you could get sufficient subsidized fare through employer programs to get the cost of the service well below the list price cash fare. In the brochure, we compared the cost of driving to work (\$4.35 for a one-way trip) to buying a monthly pass at various discounts. The brochure showed how riders could get the fare down to about \$1.40 or even lower. We also included the list of Employee Trip Coordinators' phone numbers so that potential riders knew where to purchase discounted fare items. We believe this gave potential riders virtually everything they needed to know in order to make a decision to get on the system.

### **Follow-up Research**

We conducted some follow-up research, primarily because, even though the ridership was moving upwards (three to four times that of the old route), the new route was still not getting quite the ridership we expected and wanted. We recently conducted a telephone market-area survey of non-riders to find out why they are not using the route. Unfortunately, survey results are not yet available.

Metro has also done an on-board survey to confirm that the service was meeting customers' expectations. Eighty-five percent of our Route 292 riders ride five days a week, 14 percent ride four days a week, and only one percent are not regular riders. Almost three-fourths get a subsidy in terms of their out-of-pocket costs, up to half the cost of the list fare.

The survey also indicates that the number of Route 292 riders telling us they are completely satisfied — our highest rating — is about three times what we see in the rest of our park-and-ride service system. Market research helped Metro establish a service that people like and use.

### **Comparisons with the Drive Mode**

About 90 percent of riders on this route reported that it is much less stressful to take the bus than to drive. In terms of travel time, almost half are telling us that the Route 292 is much faster than driving and another third are telling us that it is somewhat faster. Given that one of the most frequent complaints about transit is that it is too slow, we were very pleased to see three-fourths of our customers telling us the new service is faster than driving to work.

Our toughest area to succeed in is cost. We are not getting the positive numbers we received with some of the other preliminary results, though two-thirds of riders responded that the bus is less expensive.

### **Re-capturing Former Metro Riders**

Some of the best news out of the on-board survey of our Route 292 customers is that almost half of the new riders are former riders. They had quit riding our system sometime within the past five years. With this new service, Metro has drawn them back into the system. And, as a system that has experienced overall declining ridership, it is gratifying to see that you can bring people back; they are not necessarily lost forever. About a third, or 30 percent, of riders changed from some other bus route to Route 292. About 21 percent are new transit riders.

**Marketing Where Riders Live**

In our marketing efforts we concentrated on four ZIP codes as our target market, based on proximity to where the service initiated. Looking at the on-board survey data, we were surprised to discover that almost 50 percent of our customers come from outside our target market area. In planning another ridership building effort, this finding told us that we need to expand our definition of the market area.

**Summary and Conclusions**

To summarize, we have used market research in probably 10 to 12 service development cases in the past couple of years. It has been a very useful tool for defining the market very narrowly, yet accurately. With market research we collect current data, not years-old like most census data.

The primary advantage of using market research for service decisions is the ability to test a service or concepts before putting the service on the street and potentially making a six-figure or larger monetary mistake.

**EARNING CUSTOMER LOYALTY:  
RESEARCH, INCENTIVES, SATISFACTION**

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Many public transportation professionals believe that they do not operate in a competitive marketplace. The fact is, we do operate in a competitive marketplace. The automobile manufacturers have recognized us as a competitor (recall the recent "tear up your bus pass" ad campaign), and we should recognize them as a competitor.

Of course, transit cannot hope to compete with the auto industry in advertising. But this is not the place where competition begins. Competition begins with consideration. Transit competes against all modes of transportation, and it begins when people think about, "I want to move from point A to point B. How should I make that trip?" That consideration is when competition begins, and that is where we need to focus our attention. If we gain confidence at the consumer level, that will increase ridership.

**One Small System's Use Of Research**

In Lansing, Michigan, non-rider research told us that people did not know there was a bus near their home or work area. And research of riders told us that the bus did not go where they wanted it to go or when they wanted it to go there. To clarify this, we conducted more in-depth research and found out that people wanted Sunday service. Lansing had six-day service, but a very large percentage of the population wanted Sunday service.

Operationally, this service improvement would be neither very difficult nor very costly. We went back to the research and identified the routes on which respondents requested Sunday service. Then we offered these riders a month of free Sunday riding. There are normally only four Sundays in a month, so it was only four days of lost fares. But to the customer, a month of free riding sounded fabulous.

We also marketed these routes. We used mail carrier route marketing rather than ZIP code level marketing. We purchased mailing lists within a quarter of a mile on either side of a given bus route and sent those addresses a package telling them about the new service available in their community. Within one month, this service was among the most productive services that Lansing carried.

**Market Research In Minneapolis**

The Metropolitan Council of Transit Operations (MTCO) in Minneapolis had not done market research for a number of years. When marketing research was used, the agency conducted traditional kind of research focused on determining from the public how the transit agency had been doing. It was doing fairly well; in fact, 80 percent of the people thought we were either very good or good. The reaction inside the organization was, "We are very good."

Still, having 80 percent satisfaction level was, to me, not acceptable. This was only a picture of the customers' perception today. It is not a picture of what the customers would like in the future or how long they will stay with us. I said, "Is that good enough? No." We did another on-board survey and another non-rider survey.