

Appendix A:

Importance-Satisfaction Analysis

**A Report Card
From Missourians**

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Helping You Better
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IMPORTANCE-SATISFACTION ANALYSIS

OVERVIEW

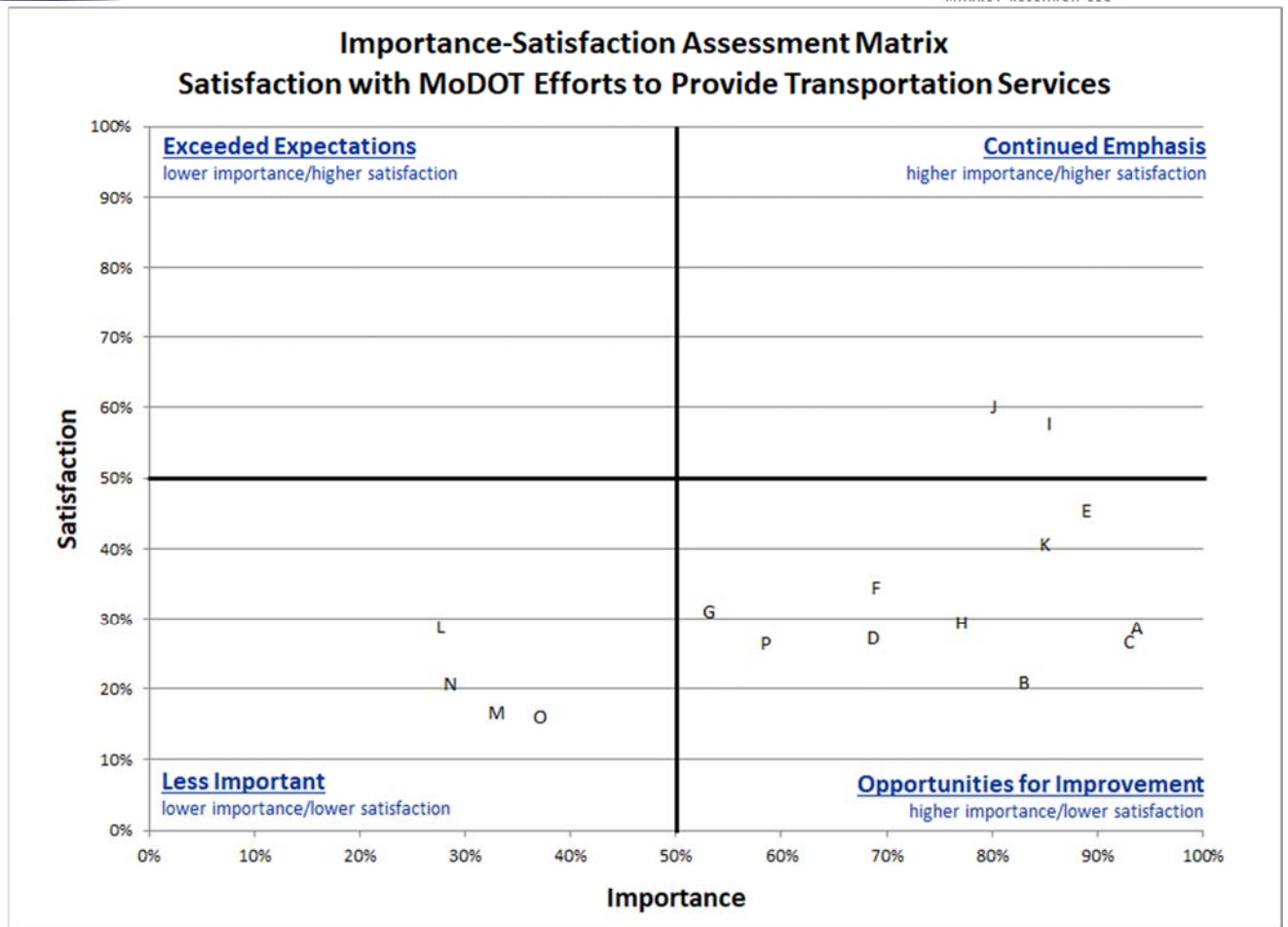
In a world with no resource limitations, public officials would devote enough resources to satisfy all citizens for all desired services. However, in the real world, community leaders must make tough decisions about which services to provide and how much funding to allocate for each offered service. An importance-satisfaction analysis provides feedback on services that indicate both the importance of the service in the eyes of the citizens as well as how satisfied (or dissatisfied) the citizens are with the current service. By reviewing the relative importance-satisfaction ratings of the various services currently offered by MoDOT, decision-makers can understand where Missourians as a whole would prefer their limited resources be focused.

IMPORTANCE-SATISFACTION MATRIX

The Importance-Satisfaction is simply a plot of the services offered by MoDOT with the percentage of Missourians who believed a service was very important on one axis and the percentage of Missourians who were very satisfied with the service on the other axis.

The Importance-Satisfaction Matrix should be interpreted as follows:

- **Exceeded Expectations** – this quadrant shows areas where citizens have indicated that services are less important to them than other services and where citizens are highly satisfied with the results that MoDOT is providing. Items in this quadrant do not significantly impact citizens' overall satisfaction.
- **Continued Emphasis** – this quadrant shows areas where citizens believe that the service provided by MoDOT should be a priority and where citizens are highly satisfied with the results that MoDOT is providing. Items in this quadrant have a significant impact on citizens' overall satisfaction.
- **Opportunities for Improvement** – this quadrant shows areas where citizens believe that the service provided by the MoDOT should be a priority and where citizens are not satisfied with MoDOT's current performance. Items in this quadrant have a significant impact on citizens' overall satisfaction.
- **Less Important** – this quadrant shows areas where citizens have indicated that the services are less important to them than other services and where citizens also are less satisfied with MoDOT's current performance. Items in this quadrant do not significantly impact citizens' overall satisfaction.



Legend	MoDOT Service
A	Keep the surface of major highways in good condition
B	Keep the surface of other state highways in good condition
C	Keep bridges in good condition
D	Minimize congestion on highways
E	Manage snow and ice on highways
F	Keep the shoulders on highways in good condition
G	Mow and trim trees, grass, and weeds along highways
H	Remove debris - such as dead animals, glass, and torn tires - from the driving lanes on highways
I	Provide signs along highways that are easy to understand
J	Provide bright signs
K	Provide bright striping on highways
L	Support your options for traveling by air
M	Support your options for traveling by public transit such as buses, vans, or Metro Link
N	Support your options for traveling by Amtrak
O	Provide bike lanes or paved shoulders for traveling by bicycle
P	Provide sidewalks or intersection crossings for traveling by walking

While there was some movement, results were similar to the previous survey conducted in 2015. The primary trend was a slight increase in those that were very satisfied for almost all measures – while many measures still show ample room for improvement, respondents showed MoDOT as having improved since 2015. Only one item changed quadrants since the previous study. In 2015, respondents indicated that MoDOT’s service of mowing and trimming highway foliage was less important. In 2017, they identified it as an opportunity for improvement. Respondents also suggested that MoDOT should continue to emphasize bright and easily understandable highway signs. According to the Importance-Satisfaction Matrix, Missourians are both very satisfied with these services and believe they are very important.

There were a number of services that fell into the opportunities for improvement quadrant such as keeping the surfaces of all highways in good condition. These are services that most Missourians believe are very important yet less than half of state residents are very satisfied. Improving these services will have the greatest impact on increasing overall Missourian satisfaction with MoDOT’s efforts to provide transportation services.

A few transportation services fell into the less important quadrant such as supporting options for traveling by Amtrak. This does not mean that these services are unimportant to those who utilize them, but that – as a whole – Missouri residents value them less than other services. Improving services in this quadrant will not markedly improve the satisfaction of most state residents.

IMPORTANCE-SATISFACTION RATING

The importance-satisfaction (IS) rating is simply the product of the very important percentage and one minus the very satisfied percentage.

$$IS\ rating = very\ important\ \% \times (100\% - very\ satisfied\ \%)$$

For example, in order to calculate the importance-satisfaction rating of keeping the surface of other highways in good condition, one would look up the very important percentage for this service (93.9%) and the very satisfied percentage with this service (28.7%). One would then plug these numbers into the equation:

$$IS\ rating = most\ important\ \% \times (100\% - satisfaction\ \%)$$

$$IS\ rating = 93.9\% \times (100\% - 28.7\ \%)$$

$$IS\ rating = 93.9\% \times 71.3\%$$

$$IS\ rating = .670$$

While only one decimal place is shown in the data, the actual calculations were completed by software that utilized double precision point numbers, equivalent to 15 decimal places.

Importance-Satisfaction Rating						
Satisfaction With MoDOT Efforts to Provide Transportation Services						
MoDOT Service	Very Important %	Very Important Rank	Very Satisfied %	Very Satisfied Rank	Importance-Satisfaction Rating	Importance-Satisfaction Rating Rank
Highest Priority (IS > .600)						
Keep bridges in good condition	93.0%	2	26.8%	11	0.681	1
Keep the surface of major highways in good condition	93.9%	1	28.7%	9	0.670	2
Keep the surface of other state highways in good condition	82.99%	6	20.88%	13	0.657	3
Higher Priority (IS .500 to .590)						
Remove debris - such as dead animals, glass, and torn tires - from the driving lanes on highways	77.2%	8	29.6%	7	0.544	4
Provide bright striping on highways	85.0%	5	40.7%	4	0.503	5
Minimize congestion on highways	68.8%	10	27.3%	10	0.500	6

Importance-Satisfaction Rating						
Satisfaction With MoDOT Efforts to Provide Transportation Services						
MoDOT Service	Very Important %	Very Important Rank	Very Satisfied %	Very Satisfied Rank	Importance-Satisfaction Rating	Importance-Satisfaction Rating Rank
Medium Priority (IS .350 to .490)						
Manage snow and ice on highways	89.1%	3	45.6%	3	0.485	7
Keep the shoulders on highways in good condition	69.0%	9	34.4%	5	0.453	8
Provide sidewalks or intersection crossings for traveling by walking	58.5%	11	26.6%	12	0.429	9
Mow and trim trees, grass, and weeds along highways	53.1%	12	31.1%	6	0.366	10
Provide signs along highway that are easy to understand	85.4%	4	57.8%	2	0.361	11
Lower Priority (IS <.350)						
Provide bright signs	80.2%	7	60.3%	1	0.319	12
Provide bike lanes or paved shoulders for traveling by bicycle	37.0%	13	16.2%	16	0.311	13
Support your options for traveling by public transit such as busses, vans, or Metro Link	33.0%	14	16.8%	15	0.275	14
Support your options for traveling by Amtrak	28.6%	15	20.7%	14	0.227	15
Support your options for traveling by air	27.7%	16	29.0%	8	0.197	16

It is important to understand that the Importance-Satisfaction Assessment Matrix and the Importance-Satisfaction Ratings measure two different concepts. The IS Matrix provides a snapshot of current Missourian beliefs about the relative importance of services offered by MoDOT and their relative satisfaction with each. The IS ratings provides management with guidance on where improving a service will provide the greatest overall increase in Missourian satisfaction.

One characteristic of IS ratings is that items where MoDOT is currently excelling (such as services related to signage) rank relatively low. Even though most Missourians believe these services are very important, improvements in these services will only have a relatively minor impact on overall satisfaction since most residents are already very satisfied with MoDOT's performance on these services.

Based upon the importance-satisfaction analysis, MoDOT can most improve resident satisfaction with improved offerings on three key services:

1. **Keeping bridges in good condition.**
2. **Keeping the surface of *major* highways in good condition.**
3. **Keeping the surface of *other* highways in good condition.**

These options are listed in order of potential impact. As shown on the preceding tables, all sixteen services have an Importance-Satisfaction Rating Rank (rightmost column) and improvements to the service with rank 1 will have a greater impact than improvements to the service with rank 2 (and a much greater impact than improvements to the service with rank 16).