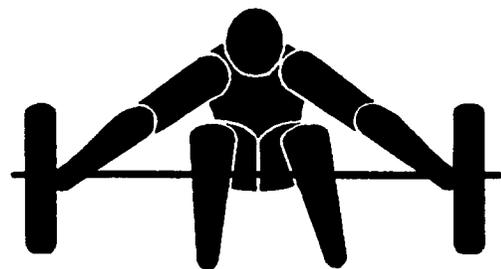


Evaluating MWR Fitness Programs

A Navy Case Study Using the Importance-Performance Analysis Method



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Why evaluate service quality in an MWR fitness program? One of the most important reasons is to gain a more substantial understanding of the quality of service and to uncover specifically where service needs more attention. The cost of a service failure or a bad fitness experience is the potential loss of a regular participant and a deterrent to attracting new participants. An effective evaluation technique aims at uncovering areas where service provision is lacking and provides vital information required to improve service quality.

In order for any evaluation method to be effective, results of the data must be practical enough to be used on a regular basis and easily understandable for the fitness program and MWR staff. In addition, most

program evaluation methods usually only report on the performance features of the program or staff person and fail to include analysis on what participants believe are the most important features.

A pilot study was conducted using the importance-performance analysis model with the fitness programs at the Naval Air Station Jacksonville in late 1995. Results of the study, focusing specifically on the aerobics program and the strength and conditioning program, can be used to demonstrate the potential and applicability of the importance-performance model as a practical and effective technique for fitness program evaluation. Overall preliminary results indicate a very high level of participant satisfaction with the

NAS Jacksonville fitness program.

Importance-Performance Analysis Method

The importance-performance analysis is a well documented business marketing research technique developed by Martilla and James (1977) that involves the analysis of consumer expectations (importance) and consumer satisfaction (performance). Specifically, it is a tool used in evaluating attributes of a program, product or service from the perceptual viewpoint of the customer—or in this case—the fitness participant.

Since its introduction into the marketing field by Martilla and James, importance-performance analysis has been successfully applied to various settings such as: therapeutic

recreation, restaurants, automobile dealers, employee motivation, health care, leisure services and education.

While there exists alternative approaches to measuring fitness effectiveness which entail complex statistical analysis, such as factor analysis, the importance-performance analysis approach provides a simple and convenient form of measurement. This is accomplished by measuring participant expectations and perceived satisfaction using simple interval scales. The importance component reassures how important attributes are to the participant, while the performance component reassures how the program or agency performs on those attributes according to the participant. A simultaneous comparison of group mean scores for both the importance and performance attributes provides a straightforward measure of effectiveness. Other attractive features of the importance-performance analysis method over alternative fitness evaluation approaches include:

- Measures both the importance of the attributes and the performance of the agency on these attributes.
- Data collection is quick and inexpensive.
- Data is presented in an easy to interpret 2 x 2 dimensional grid that suggests possible courses of action.
- The practical significance of the results are graphically illustrated.
- The tool can also perform marketing and evaluation functions.

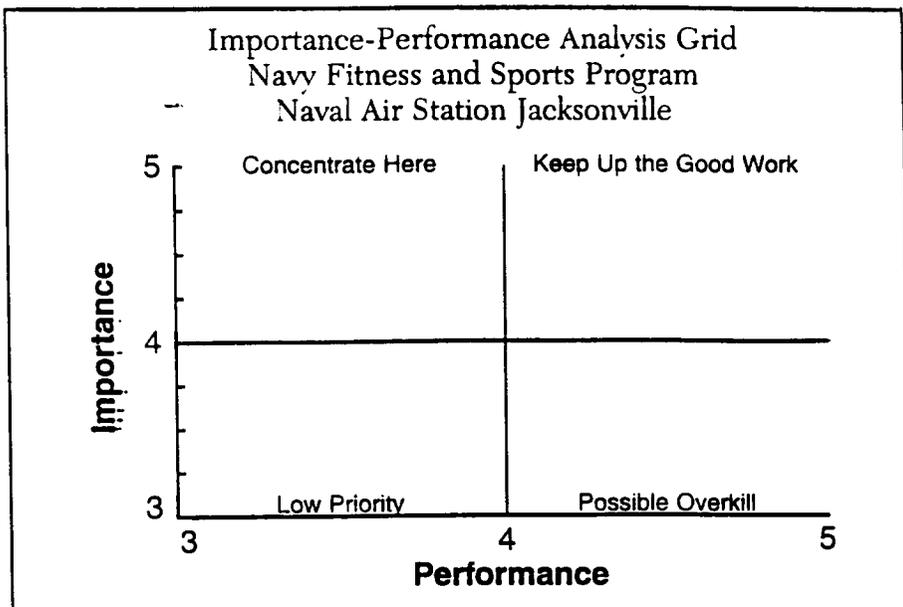


Figure 1. Importance-Performance Analysis Grid.

- Data is extremely practical and can be acted upon immediately.
- A significant strength of this evaluation tool is its inherent flexibility. The tool can be applied to a wide array of recreation settings such as golf, aquatics, intramural sports, special events, fitness, strength, and conditioning and instructional sports.
- The importance-performance comparison results can be translated into an end product that is an easily interpreted, priority action grid. (See Figure 1.)
- As is illustrated in Figure 1, the vertical axis indicates the importance of the fitness staff and program attributes, while the horizontal axis of the grid indicates participants' perception of the quality of performance. The mean values for each importance and performance attribute are then cross-tabulated and plotted. Once plotted, these values can be interpreted according to their

location on the grid. The traditional quadrant labels used by Martilla and James assist in the interpretation of the action grid.

- A. **Concentrate Here.**
Participants believe that attributes located in this area are very important but program/staff performance is low. *Action:* Immediate attention should be given for improving performance on these items.
- B. **Keep Up the Good Work.**
Participants rank attributes in this area high in importance and high in performance. *Action:* Continue to maintain current effort and performance.
- C. **Low Priority.**
This area characterizes attributes participants believe that are low in importance and low in performance. *Action:* No action is needed at this time since both ratings are low in terms of priority.
- D. **Possible Overkill.** Attributes in this area are judged to be

low in terms of importance to the participants but high in terms of program/ staff performance. *Action:* Possibly reallocate or shift effort and resources to other quadrants.

The importance-performance analysis grid helps the fitness staff member and the MWR Director interpret program and staff performance and assists in identifying potential problem areas.

Accordingly, appropriate action plans for moving attributes from one quadrant to another can then be implemented for improving the service delivery of the fitness program.

Importance-Performance Analysis Methodology

The importance-performance analysis method is conducted using a five-stage approach. These stages consist of the following:

Stage 1. Identification of Fitness Staff and Program Attributes.

The first stage and most critical aspect of importance-performance analysis is the development of the list of specific fitness attributes to be examined. In the present study, this list was generated by a thorough review of the literature, a focus group interview with a variety of fitness participants, and consultation with fitness specialists.

The initial list of attributes for the aerobics evaluation contained 70 statements while the strength and conditioning list had 66 attributes. Because these lists were too large for survey purposes, through focus groups and pilot studies, they

How IMPORTANT to you are the following features in a strength and conditioning program?					How do you feel the strength and conditioning program PERFORMED on each of the features?															
Extremely Important	4	3	2	1	Not at All Important	No Opinion	0	Delighted	Terrible	No Opinion										
5	—	4	3	—	2	—	1	—	0	5	—	4	3	—	2	—	1	—	0	
Features																				
Staff																				
5	4	3	2	1	0	Attentiveness to participants.....	5	4	3	2	1	0	Attentiveness to safety.....	5	4	3	2	1	0	
5	4	3	2	1	0	Availability of personal consultant/trainer	5	4	3	2	1	0	Courteous/helpful.....	5	4	3	2	1	0	
5	4	3	2	1	0	CPR/1st aid certified.....	5	4	3	2	1	0	Dressed in appropriate attire.....	5	4	3	2	1	0	
5	4	3	2	1	0	Knowledgeable of equipment operation...	5	4	3	2	1	0	Knowledgeable of exercise principles.....	5	4	3	2	1	0	
5	4	3	2	1	0	Overall perception of staff.....	5	4	3	2	1	0								
Facility/Equipment																				
5	4	3	2	1	0	Cleanliness of facility.....	5	4	3	2	1	0	Equipment in good/clean working condition.....	5	4	3	2	1	0	
5	4	3	2	1	0	Handicap accessibility.....	5	4	3	2	1	0	Locker room (soap, dryer, towels etc.)....	5	4	3	2	1	0	
5	4	3	2	1	0	Mirrors in room.....	5	4	3	2	1	0	Parking.....	5	4	3	2	1	0	
5	4	3	2	1	0	Pictorial instructions for using equipment	5	4	3	2	1	0	Quality of equipment.....	5	4	3	2	1	0	
5	4	3	2	1	0	Sound system/music.....	5	4	3	2	1	0	Sufficient number/variety of free weights	5	4	3	2	1	0	
5	4	3	2	1	0	Sufficient number/variety of cardiovascular equipment (exercise bikes, treadmills, etc.).....	5	4	3	2	1	0	Sufficient number/variety of variable resistance equipment (Cybex, Nautilus, etc.).....	5	4	3	2	1	0	
5	4	3	2	1	0	Temperature control in facility.....	5	4	3	2	1	0	Total number hours of operation.....	5	4	3	2	1	0	
5	4	3	2	1	0	Variety of up-to-date equipment.....	5	4	3	2	1	0	Water fountains.....	5	4	3	2	1	0	
5	4	3	2	1	0	Overall perception of facility/equipment.	5	4	3	2	1	0								
Programming/Services Offered																				
5	4	3	2	1	0	Availability of program information.....	5	4	3	2	1	0	Educational material on strength/conditioning.....	5	4	3	2	1	0	
5	4	3	2	1	0	Group consultations on how to use equipment.....	5	4	3	2	1	0	Number of participants in facility.....	5	4	3	2	1	0	
5	4	3	2	1	0	Scheduling of orientation classes/clinics.	5	4	3	2	1	0	Users receive individual attention.....	5	4	3	2	1	0	
5	4	3	2	1	0	Workout log cards.....	5	4	3	2	1	0	Overall perception of programming/services.....	5	4	3	2	1	0	
Registration																				
5	4	3	2	1	0	Cost/fee of program.....	5	4	3	2	1	0	Ease of registration process.....	5	4	3	2	1	0	
5	4	3	2	1	0	Overall perception of registration.....	5	4	3	2	1	0								

Figure 2. Importance-Performance Survey Instrument.

Attribute Code	Attribute Statement	Mean Importance Rating	Importance Rating	Mean Performance Rating	Performance Ranking ¹
Staff/Instructor					
A	CPR/1st aid certified	4.50	23	4.63	1
B	Non-intimidating attire	3.21	34	4.21	20
C	Explanation/demonstration	4.70	9	4.33	14
D	Knowledge of activity	4.68	12	4.45	10
E	Knows participants by name	3.30	33	3.28	34
F	Music selection	4.47	26	3.97	30
G	Trained by professional	4.68	12	4.39	11
Facility/Equipment					
H	Adequate quantity of equipment	4.80	4	4.46	8
I	Aerobic/fitness flooring	4.86	2	4.51	6
J	Cleanliness of facility	4.81	3	4.56	3
K	Equipment in good condition	4.93	1	4.59	2
L	Handicap accessibility	4.64	15	3.92	31
M	Locker/shower facilities	4.54	19	4.28	16
N	Mats available	4.38	30	4.47	7
O	Mirrors in room	4.32	31	4.36	13
P	Parking	4.50	23	3.49	33
Q	Privacy in fitness room	4.20	32	4.13	26
R	Quality of equipment	4.79	5	4.56	3
S	Sound system/music	4.52	22	4.26	17
T	Temperature control in facility	4.69	10	4.08	27
U	Variety of up-to-date equipment	4.76	8	4.32	15
V	Water fountains	4.78	7	4.16	25
Programming/Services Offered					
W	Availability of program information	4.47	26	4.17	23
X	Educational material on	4.54	19	3.89	32
Y	Participant/leader ratio	4.45	28	4.00	28
Z	Popular sessions offered various	4.66	14	4.18	21
AA	Scheduling of orientation	4.54	19	4.00	28
BB	Session descriptions accurate	4.48	25	4.26	17
CC	Session-intensity/complexity	4.64	15	4.23	19
DD	Variety of aerobic sessions	4.69	10	4.18	21
EE	Variety of routines	4.60	18	4.37	12
Registration					
FF	Cost/fee of program	4.79	5	4.55	5
GG	Discount for late registration	4.17	29	4.64	23
HH	Ease of registration process	4.64	15	4.46	8
Overall Perceptions					
II	Staff/Instructor	4.55	4	4.46	3
JJ	Facilities/Equipment	4.79	1	4.41	4
KK	Programming/Services Offered	4.67	2	4.53	1
JJ	Registration	4.56	3	4.53	1
¹ A five-point scale was used ranging from "Extremely important" (5) to "Not at All Important" (1)					
² Several attributes tied in ranking					
³ A five-point scale was used ranging from "Delighted" (5) to "Terrible" (1)					
⁴ Several attributes tied in ranking					

Figure 3. Importance and Performance Ratings/Rankings of Selected Aerobic Fitness Program Attributes.

were reduced to 45 attributes and further narrowed and refined to a final list of 37 attributes for the strength and conditioning survey and 38 attributes for the aerobics survey. Figure 2 is an example of the importance-performance survey instrument for the strength and conditioning program. *Stage 2. Development of the Survey Instrument.*

The purpose of the survey instrument was to evaluate each of the selected fitness attributes from two participant perspectives: "How important to you are each of these fitness features?" and "How well did the fitness program/staff perform?" The attributes were grouped into four general categories: staff, facility/equipment, programming/services offered, and registration. A five-point Likert scale was used to rank the importance and performance of each attribute. In addition to these rating scales, three open-ended opinion questions ("What I like best about this program," "What I like least about this program," and "Suggestions for improving the overall program") were included on both survey forms.

Stage 3. Data Collection.

The importance-performance questionnaire was distributed to participants in randomly selected clusters of aerobic classes as well as participants who were using the strength and conditioning facilities.

Stage 4. Calculation of the Results.

Individual importance and performance means and rank-

Attribute Code	Attribute Statement	Mean Importance Rating ¹	Importance Rating ²	Mean Performance Rating ³	Performance Ranking ⁴
Staff/Instructor					
A	Attentiveness to participants	4.08	24	3.90	21
B	Attentiveness to safety	4.43	14	4.13	10
C	Personal consultant/trainer	3.82	31	3.65	30
D	Courteous/helpful	4.48	10	4.16	8
E	CPR/1st aid certified	4.34	18	3.95	18
F	Dressed in appropriate attire	3.83	30	4.22	4
G	Knowledge of equipment	4.64	1	4.16	8
H	Knowledge of exercise	4.53	8	4.19	6
Facility/Equipment					
I	Cleanliness of facility	4.63	3	4.39	3
J	Equipment clean/good condition	4.64	1	4.20	5
K	Handicap accessibility	4.00	27	3.77	27
L	Locker room	4.48	10	3.95	18
M	Mirrors in room	4.03	26	4.19	6
N	Parking	4.45	13	3.44	33
O	Pictorial instructions for equipment	4.15	22	3.75	28
P	Quality of equipment	4.62	4	4.10	12
Q	Sound system/music	4.19	20	3.72	29
R	Sufficient free weights	4.54	6	4.12	11
S	Sufficient cardio equipment	4.49	9	4.10	12
T	Sufficient variable resistance	4.07	25	3.98	16
U	Temperature control in facility	4.43	14	3.92	20
V	Total number of hours	4.47	12	3.89	22
W	Up-to-date equipment	4.43	14	4.05	14
X	Water fountains	4.54	6	3.98	16
Programming/Services Offered					
Y	Program information	4.16	21	3.89	22
Z	Educational material	4.20	19	3.59	31
AA	Group consultations	3.78	32	3.56	32
BB	Number of participants various	4.12	23	4.04	15
CC	Orientation sessions/clinics	3.87	29	3.84	24
DD	Individual attention	3.91	28	3.80	26
EE	Workout log cards	3.56	33	3.82	25
Registration					
FF	Cost/fee of program	4.39	17	4.40	2
GG	Ease of registration process	4.56	5	4.60	1
Overall Perceptions					
HH	Staff/Instructor	4.35	3	4.12	3
II	Facilities/Equipment	4.54	1	4.13	2
JJ	Programming/Services Offered	4.07	4	4.07	4
KK	Registration	4.46	2	4.53	1
¹ A five-point scale was used ranging from "Extremely important" (5) to "Not at All Important" (1) ² Several attributes tied in ranking ³ A five-point scale was used ranging from "Delighted" (5) to "Terrible" (1) ⁴ Several attributes tied in ranking					

Figure 4. Importance and Performance Ratings/Rankings of Selected Strength and Conditioning Attributes.

ings (see Figures 3 and 4) were calculated for each of the attributes and plotted on the two-dimensional grids. The open-ended questions were tabulated and categorized with frequencies of responses by using a content-analysis procedure.

Stage 5. Interpretation of the Results.

In the importance-performance analysis method, results are graphically interpreted by viewing the plotted quadrant location for each attribute. Quadrant intersections can be determined by the staff or administrator and are a matter of judgement based on relative rather than absolute levels of importance and performance. For the purpose of this study, a more stringent analysis of fitness evaluation was desired, thus the cross hairs were positioned at the "4.00" value on both axes rather than the average value of "3." Figures 5 and 6 are representative examples of importance-performance grids from the NAS Jacksonville study.

Since program effectiveness is so important in the delivery of any recreation program, more and more administrators are underscoring the need for evaluation and the effort necessary to conduct it. Fitness programming and its evaluation process are extremely complex. The importance-performance analysis method can be an extremely valuable and effective tool in helping programmers assess the quality of their efforts. Importance-performance

analysis provides a straightforward approach for collecting and interpreting data and graphically presents results in an easily understood action grid that suggests methods to improve overall program effectiveness.

The importance-performance technique can yield important insights into which aspect of the marketing mix an MWR recreation program should devote more attention, as well as identify areas that may be consuming too many resources. The various grids facilitate management interpretation of the data

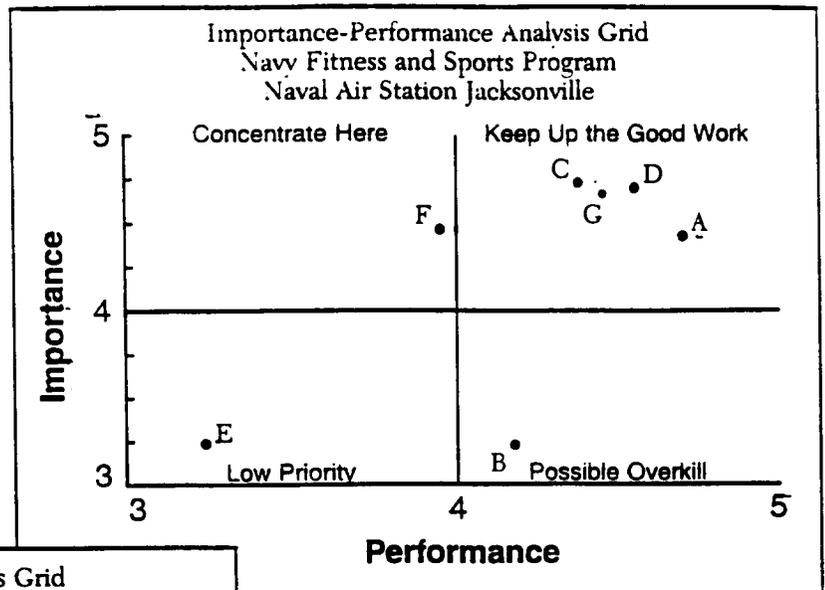


Figure 5.

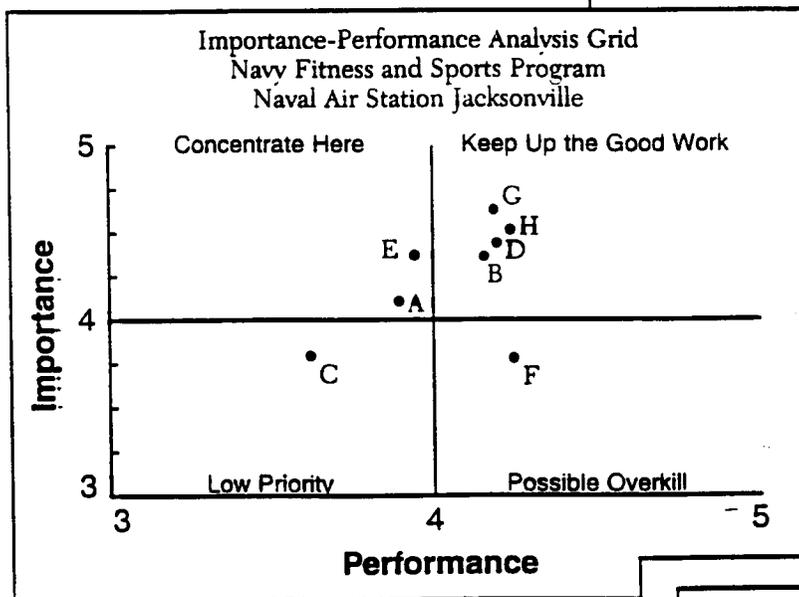


Figure 6.

°Martilla, J. A., & James, J. C. (1977). Importance-performance analyses. *Journal of Marketing*, 41(1), 77-79. For more information on the importance-performance analysis model, contact Dr. Craig Ross at (812) 855-3102.

and increases the usefulness of the results in making strategic marketing decisions.

Understanding participants' perceptions of service quality is vital in retaining and attracting new participants. The preliminary research results from the Naval Air Station Jacksonville study clearly illustrates that the importance-performance technique works extremely well in a fitness program. More importantly, the importance-performance technique can be applied successfully to all MWR recreation programs throughout the world. ★★★

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