

Army Library Institute 2000 -- Assessment

AFPI-MWS

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SUBJECT: Army Library Institute 2000 Assessment

1. Previously the Army Library Institute relied on a method of assessment which solicited from participants comments about what they liked best, what they did not like, and any additional remarks about how to improve ALI. For ALI 2000, the approach taken was to utilize a marketing survey tool called the Importance-Performance Analysis (IPA) model.

2. Briefly, the IPA survey normally asks respondents to first indicate their perceptions about how important a particular attribute is to them against a set of fixed responses scaled as follows:

- 'Very High Expectation'
- 'High Expectation'
- 'Slightly High Expectation'
- 'Slightly Low Expectation'
- 'Low Expectation'
- 'Very Low Expectation'

It then asks them how well a particular attribute was performed by the service provider. The mean differences between importance and performance for each attribute are then plotted on a bi-axial grid which results in a graphic display of plotted attributes residing in four possible quadrants of that grid. The disparity between measurements of importance and performance for each attribute, called the 'I-P gap' reveals much about how customers see services and what courses of action managers may take to improve services.

3. [Enclosure 1](#), "Importance-Performance Analysis" by John A. Martilla and John C. James, Journal of Marketing 41:1 (January 1977) pp. 77-79, provides a summary of IPA principles and methodology. A frequently cited article on this subject.

4. [Enclosure 2](#), "Evaluating MWR [Morale, Welfare, Recreation] Fitness Programs: A Navy Case Study Using the Importance-Performance Analysis Method" by J. Kelly Powell [and others], Military Clubs and Recreation (March 1996), pp. 20-25, is an example of IPA applied to a particular program.

Army Library Institute 2000 -- Assessment

5. Enclosures 3 through 6 pertain to the ALI 2000 Assessment in particular:

- a. Encl 3, Program Assessment Survey, Pt 1. Expectation
- b. Encl 4, Program Assessment Survey, Pt 2, Satisfaction
- c. Encl 5, IPA Grid and Survey Results Table
- d. Encl 6, Deviation Between Expectation & Satisfaction Mean Values

6. Attributes.

a. Attributes, also called 'survey elements' used in our s ALI 2000 assessment derived from the ALI 2000 program agenda. Initially, all agenda items were listed on the survey forms, including Session B 'General Library Working Group'. Upon first examination of the distribution of plotted data, however, the Session B attribute was plotted way out in left field as it were. This skewed the locations of many other attributes which clustered these so close together that little sense could be made of the data. Session B was then deleted from the analysis resulting in a more open display of the other attribute on the grid.

b. Although the ALI 2000 agenda was geared to all kinds of libraries and librarians, Session B focused primarily on general libraries (and attended primarily by librarians who work in general libraries). The assessment, however, asked all ALI 2000 participants to rate Session B, and this by itself, resulted in some participants not knowing how to rate their personal expectation or satisfaction since they did not participate in Session B. Thus, this survey element or attribute was excluded from a second data analysis and display.

7. Survey Forms.

a. Program Assessment Survey, Pt 1 'Expectations' (Enclosure 3) asked each participant to indicate his/her "level of EXPECTATIONS (i.e., degree of importance of each session) for personal benefits" from the set of fixed scaled responses listed above in paragraph 2.

b. Program Assessment Survey, Pt 2 'Satisfactions' (Enclosure 4) asked each participant to rate the same 26

Army Library Institute 2000 -- Assessment

sessions on Part 1, but this time to indicate his/her degree of SATISFACTION (i.e., level of performance) with each session.

c. Data provided by participants on both forms were scanned and analyzed in accordance with a customer-satisfaction program developed at Headquarters, U.S. Army Forces Command, and modeled on principles developed initially for business marketing.

8. IPA Grid and Survey Results Table (enclosure 5).

a.. The top portion of this enclosure, the IPA Grid, displays the plotted attributes, labeled A through Y, on a two-dimensional grid. The grid's horizontal axis represents Expectation (Importance); its vertical axis Satisfaction (Performance).

b. The center of the grid (where the two axes intersect) represents the grand mean values for expectation / satisfaction sample data. This grid center also defines four quadrants (from top left reading clockwise):

Focus Efforts Here	Keep Up the Good Work
Low Priority	Possible Overkill

c. Within each quadrant are labels (A - Y) representing sample data for each ALI 2000 session. Ideally, if expectation aligned perfectly with satisfaction for each label, then ALL labels would be located along an imaginary line running diagonally through the grid center -- from near the grid's lower left corner to near its upper right corner. In actuality, labels are at varying distances from this line. The greater the distance between this diagonal line and the label, the greater the displacement between expectation and satisfaction for that particular ALI 2000 session. For example, labels C through N are closer to this line than labels A and B, and labels O through Y. One general assessment of these sample data is that many of ALI 2000's sessions met participants expectations.

d. This general assessment, however, begs the question about labels in the 'Focus Efforts Here' and 'Possible Overkill Quadrant' quadrants. (At this stage the labels in the remaining

Army Library Institute 2000 -- Assessment

two quadrants need not concern us. We know intuitively from looking at the labels in the 'Keep Up the Good Work' quadrant that management has delivered satisfactory service here, and labels in the 'Low Priority' quadrant are just that - low priority.) A hard look at attribute rankings is in order.

e. The bottom portion of Enclosure 5 displays the 'Expectation-Satisfaction Survey Results Table' which lists survey elements (attributes, labels) alphabetically A to Z. The 'Observations' column indicates the number of observations or participants for both Expectation and Satisfaction. The 'Mean Expectation' column lists for each attribute, its mean, or average, rating AND its ranking relative to other attributes. The 'Mean Satisfaction' column does the same for the satisfaction data. The 'E/S Mean Difference' column lists the mean difference between expectation and satisfaction for each attribute. The last column, 'E/S Interval Ranking' lists the ranking of intervals.

f. Look at the top five Mean Expectation rankings:

- (1) J -- Virtual Library Services
- (2) B -- Electronic Books and Libraries
- (3) E -- Future of Libraries
- (4) H -- Army Library Program Update
- (5) K -- Army Knowledge Online

and the bottom five Mean Expectation rankings:

- (21) O -- Social 'Meet and Greet'
- (22) Y -- General Libraries Open Meeting
- (23) X -- ALI 2000 Assessment
- (24) U -- Tours (CNN and Carter Center)
- (25) W -- MACOM Meetings

In general, ALI 2000 participants had higher expectations for sessions J, B, E, H, and K, and lower expectations for sessions O, Y, X, U, and W. Note that the mean expectation values bear this out. For our top five, mean expectation ratings are

Army Library Institute 2000 -- Assessment

4.3256; 4.3182; 4.2292; 4.2045; and 4.1429. And for the bottom five, mean expectation ratings are 3.5532; 3.5500; 3.4727; 3.2857; and 3.1463.

g. Now look at the top five Mean Satisfaction rankings:

- (1) S -- Value of Consortia and Partnerships
- (2) Y -- General Libraries Open Meeting
- (3) T -- FLICC Training and Services
- (4) J -- Virtual Library Services
- (5) X -- ALI 2000 Assessment

and the bottom five Mean Satisfaction ratings:

- (21) F -- Intellectual Property and Copyright
- (22) D -- Easy ACCES
- (23) B -- Electronic Books and Libraries
- (24) C -- NIPRNET Security
- (25) A -- Value of Strategic Planning

In general, ALI 2000 participants experienced more satisfaction with sessions S, Y, T, J, and X, and less satisfaction with sessions G, D, B, C, and A. Again, mean satisfaction ratings bear this out. For the top five, mean satisfaction ratings are 4.8000, 4.7742; 4.7500; 4.6563; and 4.6383. And for our bottom five, mean satisfaction ratings are 3.9231; 3.8621; 3.7400; 3.4118; and 3.3125.

h. The arithmetic difference between each attribute's mean expectation and mean satisfaction ratings, is displayed in the 'E/S Difference' column. For example, Attribute A's E/S mean difference of 0.6467 is arrived at by subtracting its mean satisfaction rating of 3.3125 from its mean expectation rating of 3.9592. A positive 'E/S mean difference' number indicates an initial higher expectation and lower satisfaction for a particular attribute. Conversely, a negative 'E/S mean difference' number indicates a greater degree of satisfaction in relation to an initial lower expectation for a particular attribute. The greatest 'E/S mean difference' of -1.2242 was

Army Library Institute 2000 -- Assessment

for Session Y 'General Libraries Open Meeting' which tells us that initially ALI participants had a modest expectation (3.5500) about this particular session, but were very satisfied (4.7742) with it.

9. Deviation Between Expectation & Satisfaction Mean Values (enclosure 6).

a. Trying to grasp expectation-satisfaction mean values for all attributes from the survey results table discussed in paragraph 8 above, will make one dizzy. Too many numbers and decimal points. Another way to do this is with a tabular grid that displays 'E/S mean differences against a standard deviation (SD) scale. Enclosure 6 does this by displaying a colored bar for each attribute, the length of which represents the 'E/S/ men difference, positively and negatively. Three colors are used: Green means less than one SD; Yellow means between 1 SD and 2 SDs, and Red means greater than 2 SDs.

b. To reiterate -- a positive E/S mean difference signifies that expectation exceeded satisfaction; a negative E/S mean difference signifies the opposite - that satisfaction exceeded expectation. For ALI 2000, five plots (A through E) had positive E/S mean differences. The remaining 19 plots (F through Y) had negative E/S mean differences.

10. Conclusions. With the above representation of ALI 2000 assessment survey data, and some understanding of the IPA method, we can make some conclusions about some specific ALI 2000 sessions:.

a. Session A 'Value of Strategic Planning'. Participants had very high expectations about this session, but indicated low satisfaction with it. ALI planners should either delete this session from future ALIs, or alter its presentation (better explain its objectives and content, give it more time, get a different presenter, etc.)

b. Session B 'Electronic Books and Libraries'. Ditto 10.a.

c. Session C 'NIPRNET Security . . .'. Although Green, this session needs a different approach. Ditto 10.a.

d. Sessions W, X, and Y: 'MACOM Meeting', 'ALI 2000 Assessment, and 'General Libraries Open Meeting'. These sessions are Red and all exceed 1 SD. Indicates 'possible

Army Library Institute 2000 -- Assessment

overkill' One radical response would be to eliminate these sessions in future ALIs and use the time for Sessions A, B, and C. Another response would be to better prepare ALI participants about the objectives of these sessions. The 'General Libraries Open Meeting', for example, might be shortened, or perhaps this meeting should have a separate venue altogether separate from ALI. The MACOM meetings may have run out of gas. Or, these MACOM meetings may need to be held 'after hours' and considered separately from ALI along with the General Libraries meeting. In retrospect, both the General Libraries and MACOM meetings are somewhat specialized in the sense that not all ALI participants are general librarians nor do all participants belong to a MACOM. Perhaps these sessions should not be included in the overall ALI assessment, but assessed separately. The 'ALI 2000 Assessment' needs to be better explained, and with proper preparation its results could be delivered to prior to the closing of ALI. Also, for ALI 2000, the initial 'Expectation' forms were not completed BEFORE the start of ALI proper due to the absence of full contractor support at the ALI 2000 registration desk (i.e., late arrival of computers, forms, name tags, etc., and delayed registration).

e. Session U 'Tours . . .' (Yellow) is in the 'low priority' quadrant. May want to eliminate tours, using the resources for some other ALI session. Or, leave tours and site seeing of the ALI agenda but allow a 'free' afternoon' for such activity, making it up with evening sessions. Same might be said about Session 0 'Social Meet and Greet', although this one was much closer to being 'Green'.

f. As we have just done, each ALI 2000 session can be examined in terms of its format, location, duration, content, presenter, etc., in relation to the data presented by ALI 2000's participants (i.e., its customers) to improve it, or even, to delete it from the repertoire.

g. Finally, future ALI assessments must measure results to continue to appeal to its participants, the Army librarian as ALI's principle customer.

6 Encls
as

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