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The Effect of Service Awareness on Survey Response

Ruth A. Pagell and Edward J. Lusk

The authors had examined the relative effect of university or library sponsorship in a 1984 survey of computer utilization of Wharton School M.B.A.'s and faculty. In the intervening year, many new services have been offered to the M.B.A.'s. The survey was redistributed. The response rate to the library was significantly higher for students who had used the new services than for those who had not. This result suggests that the interaction of sponsorship and the respondent group, not sponsorship itself, is the critical variable. A possible sex bias between the male professor and female librarian was found not to be significant.

In 1984 the authors conducted a survey of students and faculty of the Wharton School to determine the extent to which personal computers were used for online searching. In developing the survey, sponsorship became an issue. Previous re-

search on sponsorship suggested that if there is a perceived prestige difference between sponsoring groups, there may be a significant difference in the response rates. In general, the more prestigious sponsor elicits the higher response rate.

Sponsorship as a factor affecting questionnaire return rate has been examined in numerous studies in the literature. Doob and Peterson both found that university sponsorship increased response rate over business firm sponsorship by 10 and 13 percent, respectively.^{1,2} Peterson suggested that sponsorship was the dominant factor influencing returns.³ Jones and Linda also found that university sponsorship significantly increased response rates.⁴ Several other studies are cited by W. Jack Duncan in his review article.⁵ Further, Jones, based on previous studies by Scott and by Sudman and Ferber, sug-

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gested that sponsorship may interact with population characteristics.^{6,7,8}

Sponsorship of library-related questionnaires was examined by Nitecki, who found no difference among a prestigious sponsorship (the ALA), a moderately prestigious sponsorship (a library), and the least prestigious sponsorship (a graduate student).⁹ The effects of sponsorship on the response rate to a library questionnaire were also examined by Pagell and Lusk.¹⁰ To ascertain whether a prestige factor existed between the library and the faculty as sponsoring groups, the authors sent intramural mail questionnaires with return addresses that were distributed randomly between the faculty member as a sponsor and a member of the library as a sponsor. It was determined that sponsorship by faculty produced a significantly higher response rate for M.B.A.'s than sponsorship by the library. The inference drawn from this study was that the faculty sponsor was perceived as more prestigious than the library sponsor. There was no statistically significant effect for the faculty regarding their response rate.

Since the 1984 survey, there have been major changes in the environment of the library. These changes have resulted from the introduction of various technologies that are available to the M.B.A. students. The most prominent of these are free end-user searching and distributed databases (Halperin and Pagell).¹¹

The purpose of this paper is to report the results of the investigation of the relationship of a change in the service configuration of the library on the questionnaire response rate. Consider now the experimental design.

EXPERIMENTAL DESIGN

Because of the focused nature of the research, the 1984 survey instrument was redistributed. However, after reviewing the 1984 survey results, the authors felt it was necessary to control for possible sex bias. It was suggested to the authors that the male professor-female librarian sponsorship of the 1984 survey may have confounded the results. For this reason, the questionnaires were sent to all M.B.A.'s ($n = 1,400$) and faculty ($n = 250$), experimentally arranged as follows:

- 25 percent of the questionnaires were to be returned to a faculty address in the Wharton School, using the name of the female researcher, with the title associate professor.
- 25 percent of the questionnaires were to be returned to a faculty address in the Wharton School, using the name of the male researcher, with the title associate professor.
- 25 percent of the questionnaires were to be returned to the library, using the name of the female researcher.
- 25 percent of the questionnaires were to be returned to the library, using the name of the male researcher.

Use of the free end-user search service is the parameter chosen to measure awareness of the new service configuration.

The research hypotheses were:

- H1: The effect of the change in service configuration will manifest itself in a change in the pattern of questionnaire responses.

For the students who had not utilized the new services in the library during the year, the same results as 1984 are expected; i.e., more questionnaires will be returned to faculty than the library. It is also expected that the response pattern for students who are aware of the new service configuration of the library will differ from the response pattern of the students who are not aware of the new services. The assumed direction of this effect will be that more questionnaires will be returned to the library than to the faculty.

The change in library services available to the faculty was not of the same magnitude as the services available to the M.B.A. students. Therefore, the hypothesis regarding faculty responses was:

- H2: The pattern of responses for the faculty in the current survey will not differ from the previous survey.

In the 1984 survey, faculty returned twenty-six questionnaires to the library and thirty to faculty. This difference was not significant: $p < .1$.

As mentioned previously, another consideration in the 1985 study is the potential for sex bias between the authors. Therefore, the third hypothesis tested was:

- H3: There will be no difference in return rate for students based on the sex of the addressee.

As in the 1984 survey, the questionnaires were distributed one week before spring break.

RESULTS

For the 1985 survey, 243 students returned questionnaires. The response rate of about 20 percent was similar to that of the 1984 survey. A breakdown of returns by addressee is presented in table 1. No arrangement of returns was significant at $p < .1$. Therefore H3 is supported by the data. For this reason, sex is not considered a factor in the analysis of the principle re-

TABLE 1

DISTRIBUTION OF STUDENT RETURNS BY TYPE OF ADDRESSEE

Addressee	Frequency	Percent
Female associate professor	63	25.9
Female librarian	63	25.9
Male associate professor	63	25.9
Male librarian	54	22.2
	243	100.0

search hypothesis.

Also, the sex of the respondent was not a factor. The proportion of male to female respondents was similar to the proportion of male to female M.B.A. students. There was no difference in return rate between male researcher/male respondent or female researcher/female respondent.

An examination of student respondents based on whether they had searched at the library is presented in table 2. Based upon a chi-square test, the pattern of responses is different between the "searched" and "not searched" groups,

TABLE 2

DISTRIBUTION OF STUDENT RETURNS BY SEARCH EXPOSURE

Addressee	Searched	Not Searched
Librarian	79	36
Professor	69	57
	148	93

$p < .05$. This supports H1.

In addition, the pattern of responses from students who had not searched was

not different between the 1984 and the current survey, $p < .1$; i.e., more questionnaires were returned to faculty than to the library. Also, 83 percent of the students who had searched indicated that they were satisfied with the searching service provided by the library. Most of the comments from those not satisfied had to do with dissatisfaction with the time limitations placed upon student searching.

A similar arrangement of experimental blocks was used for faculty. There were no significant differences in response rate by faculty based on sponsorship or sex of sponsor (table 3). In the 1985 survey, faculty returned twenty-four questionnaires to faculty and twenty-three questionnaires to the library. This result is not significantly different than the 1984 result at

TABLE 3

DISTRIBUTION OF FACULTY RETURNS BY SEX AND AFFILIATION OF ADDRESSEE

Sex of Addressee	Affiliation		Total
	Professor	Librarian	
Female	11	13	24
Male	13	10	23
	24	23	47

TABLE 4

FACULTY RETURNS IN 1984 and 1985 BY AFFILIATION OF ADDRESSEE

	Faculty	Library
1984	30	26
1985	24	23

$p < .1$. This result also supports H2 (table 4).

DISCUSSION

Pagell and Lusk suggested in the 1984 study that faculty sponsorship seemed likely to increase the response rate for M.B.A.'s.¹² Results of the present survey indicate that sponsorship alone does not determine response rate, suggesting there is an interactive effect between sponsorship of a survey and use of the services of the sponsoring organization.

This may have implications for survey dissemination. In order to maximize return rate, the source of sponsorship should be related to the user group that is

to be surveyed. For example, for M.B.A. students, eliciting faculty sponsorship should increase response rate for nonusers. If, on the other hand, the survey is being designed to measure some characteristics of library usage, no faculty sponsorship is suggested.

Another implication from the interaction of library utilization and sponsorship is the issue of nonresponse bias. If a survey is distributed to the entire client base, it would seem, from the results of this survey, that users will be overrepresented, thereby possibly biasing the results of the survey. Using a more prestigiously perceived sponsor will increase the proportion of responses between users and nonusers.

If the faculty members themselves are the respondent group, sponsorship and service utilization do not appear, from the

results of either the 1984 or the present studies, to be survey design factors.

The authors suggest that when distributing a questionnaire, it is necessary to consider the patron group that is to be surveyed, i.e., users or nonusers, faculty or students, or a representative sample of the entire user population. In order to increase response rate and minimize nonresponse bias in a population survey, use of a more prestigious sponsor or joint sponsorship by library and faculty might be considered. Awareness of the interactive effect of response rates and service use can also be valuable in designing a survey using sampling methods such as stratified samples. The sample groups might be asked to respond to different sponsors. In settings like this one, where response rate tends to be low, any technique that will increase that rate is important to consider.

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