STUDENTS' PERCEPTION OF INFORMATION ENVIRONMENTS AND CHOICE OF MAJOR

Ronald Balsley, Idaho State University, Pocatello, Idaho
James Jolly, Idaho State University, Pocatello, Idaho
Ronald LeBlanc, Idaho State University, Pocatello, Idaho

ABSTRACT

This preliminary research into the information processing styles of College of Business majors suggests that business students' perceptions of the informational content of future jobs is consistent with the actual nature of the jobs. Using Chi-square analysis, however, the project did not find any differences in the informational processing styles among the students majoring in different College of Business subjects.

BACKGROUND

This project builds on several studies which have investigated the information processing styles of students and businessmen. Of particular interest is recent work (Hoy and Boulton 1983) which indicates that business students do not change information and decision style preference through their educational experience. This lack of change in decision style occurred in an environment where students were taught the very specific set of analytical and decision techniques which make up the business school curriculum.

Other researchers (Hellriegel and Slocum 1975) have investigated the decision making styles of managers and the interaction of situational factors. This research suggests the different styles of decision making can be categorized on a thinking-feeling and sensation-intuition grid. They conclude that no single style of problem solving is best. Additionally, they conclude that the situational requirements of various roles played within an organization may require the use of different problem solving techniques.

If true, this difference in the situational nature of the decision making styles should be present in the course requirements within a College of Business curriculum. The evidence, however, indicates that almost all Business courses are presented using a thinking-sensation approach. Since the content of different functional decision areas such as marketing, management, finance, and accounting have different information components and require somewhat different decision styles, students should be gravitating to those areas of study where the course work requirements are consistent with the student's preferred decision making style. What is not known is whether this is happening.

The importance of this type of research lies in the following areas:

1) Instructional techniques - If student information processing preferences are not affected by the dominant single style instruction presently given, instructors should give at least some attention to alternative teaching strategies.

2) Advising - If there is not a connection between information processing preferences and a student's choice of major, or if students have inaccurate perceptions of job choices represented by their choice of major, advising methods may need to be altered.

PRESENT STUDY

This research project investigates two aspects of this decision making environment. The first is College of Business students' perceptions of the information environment of various business occupations. This aspect of the research looked at how students viewed the source and use of information in business decision-making. This research project also extends the work of Hoy and Boulton. The Myers-Briggs Type Indicator, used to identify the decision making style of students, was selected to test the relationship between choice of major and decision style of the student.

Research Design

Two groups of College of Business students were questioned about the perception about the information environment of various careers and administered the Myers-Briggs Type Indicator. The two groups represented students at the beginning of their business education. This group were selected from introductory business statistics and accounting courses. These classes were chosen because they are traditionally taken in the student's sophomore year. The second group of students was enrolled in the senior level policy course. This course is at the end of the business curriculum because of the required core classes that are its prerequisites.

These two groups of students were selected to obtain information from students who were just entering their business education and from a group that was about to conclude their business studies and enter the business world.

Perceptions of the information environment of five areas of business education and occupation areas were measured with a five point Likert Scale. The areas that were measured included Accounting, Finance, Marketing, Management, and Information Systems.

The questions that were asked about the information environment included:

1. Information used for decision-making is received from sources inside the organization regularly and often.

2. Information used in decision-making is received from sources outside the organization regularly and often.

3. The knowledge base used in decision-making is changing rapidly.

4. The information used in decision-making is very complex and hard to understand.

5. The information used in decision-making is very objective, rather than subjective.

The five point scale was anchored on one end by the statement - Does not describe this area at all. The other anchor was - Describes this area extremely well.

On a priori basis one would expect that students would view the information environment of the various majors and occupational areas as follows.

Accounting should be viewed as an area of decision-making where the information is obtained from inside the organization. The environment should be viewed as having a stable knowledge base, relatively complex in nature and very objective.

Finance should be viewed very similarly to Accounting, with the exception of the source of information. Financial markets dictate, in part, the cost of the firm's operation. For this reason the source of information should be viewed as less from inside the firm as is accounting information.

Marketing, on the other hand, should be viewed as having an information environment which uses external information. The knowledge base should be viewed as making rapid change, being complex, and subjective in nature.

Management information should be viewed as coming from the internal environment and changing somewhat rapidly as new managerial tools are employed. The complexity of the information should be viewed as low with a subjective aspect to the decision-making.

The Information Systems informational environment should be viewed as coming from both inside and outside the firm. The rapidly changing environment would provide external information needed to keep up with the subject. The internal information needed to supply to systems is the other side of the informational requirements needed to use the systems. The complexity and subjective nature of the information will be complicated by the polar response to the questions. Some students and practitioners view the field as complex and subjective, while others have the opposite view.

The questionnaire containing these questions as well as the Myers-Briggs Type Indicator was administered to a total of 139 students. Nineteen of the cases were not included in the analysis because they represented students who had not chosen College of Business majors.

RESULTS

The results of students' perception of the information environment will be presented first. The results of the Myers-Briggs Type Indicator will then be presented.

Data about the information environments are in Tables 1 thru 5. Each of these tables provides the mean response to each of the questions posed above.

TABLE 1
SOURCES ARE FROM INSIDE

AREA	MEAN
Accounting	4.014
Finance	3.209
Marketing	2.640
Management	3.719
Information Systems	3.094

TABLE 2
SOURCES ARE FROM OUTSIDE

AREA	MEAN
Accounting	2.518
Finance	2.914
Marketing	3.748
Management	2.691
Information Systems	2.647

TABLE 3
RATE OF CHANGE

AREA	MEAN
Accounting	2.640
Finance	2.691
Marketing	3.532
Management	3.158
Information Systems	3.842

TABLE 4
COMPLEXITY

AREA	MEAN
Accounting	3.094
Finance	2.799
Marketing	2.554
Management	2.410
Information Systems	2.849

TABLE 5
SUBJECTIVE IN NATURE

AREA	MEAN
Accounting	3.590
Finance	3.115
Marketing	2.360
Management	2.487
Information Systesm	3.086

The results of the Myers-Briggs Type Indicator were analyzed using Chi-Square analysis to test the independence of the choice of major and the students information processing style. This study tested each aspect of the Indicator in this fashion. This required four tests of independence.

In each of the four cases, the null hypothesis could not be rejected. The levels of significance ranged from a low of .26 to a high of .97.

DISCUSSION

The results of the students' perception of the informational environments of the various major/occupational areas of business conforms to the a priori expectations. Although one must be cautious in using the mean values from the Likert scale, the direction of the mean values is consistent with what was expected.

Accounting, management and finance were all viewed as receiving the information needed for decision-making from inside the organization. Marketing clearly dominated the choice of the area that relied on outside information for decision making.

Informaiton systems and marketing were viewed as having rapid rate of change in the information base. This is especially true of the information system area where technology is rapidly making equipment and ideas obsolete in very short time spans.

It is interesting to note the relatively low values associated with the perceived complexity of the information associated with each of the areas. None of the areas were deemed to have high levels of complexity associated with them.

The subjective nature of marketing related decisions was confirmed as well as the objective nature of accounting information.

The results of the test of independence of the choice of a major and the information processing style of students are perplexing. The lact of a major is not influenced by processing style. This may mean that the students method of processing information is secondary to other considerations. There is also the possibility that the Myers-Briggs Type Indicator is not a good instrument for this type of investigation.

We recognize the limitations of the sample that was used to generate the data. It was a convenience sample of summer school students. For future studies of the information processing of students we will use a broader base of students so as to include other majors from outside the College of Business. This broader base will allow a comparison among majors in Liberal Arts, Engineering and Math with majors within the College of Business. Expansion of the project to include other majors will allow the use of probability sampling techniques.

CONCLUSION

This project has stimulated our interest the information processing aspect of students' choices of majors and future careers. We plan to expand this project to include businessmens' perception of the information environment. We will then be able to make comparisons between students and businessmen.

Other instruments which are designed to look at the information processing style of people will be pursued. Instruments which test the cognitive complexity of individuals is next on our list.

REFERENCES

Hellriegel, D. and Slocum, J. (1975), "Managerial Problem-Solving Styles," Business Horizons, 18 28-37.

Hoy, F. and Boulton, W. (1983), "Problem-Solving Styles of Students: Are Educators Producing What Business Needs?," Collegiate News and Views, 36, 3, 15-22.