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# Understanding Students Choices for Management Institutes

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## Abstract

The objective of the article is to determine students' taste and preferences for management institutes. Discrete choice analysis has been used to model choice processes of students. Seven attributes with two levels each were used in designing experiments. Multinomial logic is used for determining the model parameters. The attributes which negatively affect the probability of joining the management institute are fees and distance from house and the attributes with positively effect are reputation, placements, international collaboration, faculty strength and infrastructure and facilities. Findings of the study provide information to management institutes, students and government about the issues related to management institutes. This will help them in framing the future policies for management institutes.

## Introduction

Management education has seen a remarkable growth in India in the recent years as reflected in the steep rise in the number of institutes offering postgraduate programmes in management education. Indian government has liberalized the business education market over the 1990s, resulting in a rapid growth of business schools offering programs at both undergraduate as well as graduate levels. Outside of the US, India now trains largest number of MBAs with about 75,000 degrees annually. Like other developed nations Masters of Business Administration (MBA) has become a de facto requirement for managerial positions in many corporations and professional service firms. MBA degree is awarded by about 1000 institutes, universities and other AICTE affiliated colleges. MBA programmes are called by various names, e.g. PGPM (Postgraduate program in management), PGDMS (Postgraduate Diploma in Management Sciences), PGDM (Postgraduate Diploma in Management), PGDBA (Postgraduate Diploma in Business Administration), PGDBM (Postgraduate Diploma in Business Management), and MMS (Master of Management Sciences). Postgraduate education in

management in India is currently enjoying a higher demand than ever before, for several reasons, as follows:

- A large number of graduates are coming out of colleges and institutes every year, making every job opportunity highly competitive and difficult to get. Among them, the number of engineering graduates, who constitute the largest category of graduates

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seeking post-graduation in management, continues to rise (Kanavi, 1996).

- With job opportunities not being expanded in similar proportion, the majority of these graduates turn towards postgraduate education.
- Many multinational companies, attracted by India's "open door" policy, adopted due to economic liberalisation and globalization, have recently set up their branches and offices in India. These companies, during campus placement and recruitment, have shown a preference for candidates with postgraduate management degrees.
- Several companies have raised the entry level qualification itself to post-graduation with specialization in management. This is being done to ensure availability of candidates with better skills and knowledge and also to filter out the large number of applications they receive for every job they advertise.
- Many students feel that a postgraduate qualification, particularly in management, will provide them with special skills like good communication abilities, ability to work in teams, leadership quality, and exposure to current trends in business and commerce, thus enhancing their employability.

For these reasons, postgraduate education in management appears to be a popular choice for a majority of graduates. The objective of the article is to position management institutes according to students' taste and preferences. There have been many studies in the UK and USA which have identified key attributes which determine prospective students' choice of higher education institution, but to our knowledge no work has examined what is the relative importance of the attributes. Discrete choice analysis (DCA) has been used to model choice processes of decision makers in a variety of academic disciplines, including marketing, operations management, transportation, urban planning, hospitality and natural resource economics (e.g., Louviere and Timmermans 1990; Moore and Pullman 1999; Verma, Thompson, and Louviere, 1999; Verma, Thompson, Moore, and Louviere 2001). In this positioning process of management institutes we will also determine the major factors that influence post graduate student's preferences and the relative importance they attach

to these factors. The paper organised as follows the next section discusses the prior research that is relevant to the study of students' choice of educational institutions. After that the research methodology is presented followed by results and paper ends with conclusion and marketing implication.

## Literature Review

During decision making phase of selecting the institute, students rely either on their previously acquired knowledge or search for information available. Past research has shown that students will rely on promotional materials such as prospectus, (Eusden et al., 1990), UCAS guide books (IES, 1998/1999) and electronic sources of information. They may consult informative personnel such as subject teachers (IES, 1998/1999), careers officers (Moogan et al., 1999), family (Davis, 1977; Hanson and Litten, 1982; Kallio, 1995), in particular that of the mother (Kandel and Lesser, 1969) as well as friends (Fuller et al., 1982; Riggs and Lewis, 1980). Students often rely on third parties such as counselors (Hossler and Gallagher, 1987) to assist. According to Keller and Staelin (1987), the decision effectiveness is affected by the quality of information (usefulness to the consumer) and the quantity of information (number of items describing the alternative). Consequently, the student is faced with a huge amount of data, making the processing task rather daunting, unless he/she decides to employ simplifying heuristics. Student choice environment will be affected by the existing alternative brands, the format and layout of information and by the number of attributes which characterise the institution (Bettman and Kakkar, 1977; Lussier and Olshavsky, 1979; Punj and Stewart, 1983).

There are a number of factors that students might consider when determining their preferences. Soutar and Turner (2002) categorized the attribute in two categories first university related factors and second are personal factors. The university related factors are type of course, the academic reputation of the institution, the campus, the quality of the teaching staff and the type of university. Personal factors are distance from home, what their family thinks about each university and the university their friends wish to attend. Krampf and Heinlein (1981) found in context to USA that prospective students who had a positive attitude toward the university rated the attractiveness

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of the campus, informative campus visits, recommendation of family, good programs in their major, informative university catalogue, closeness to home and the friendliness of the campus atmosphere highly, suggesting that these factors might influence preferences. Hooley and Lynch (1981) used conjoint analysis for examining the choice processes of prospective students of UK universities. Qualitative research was used to determine the attributes used in the decision process, followed by face-to-face data collection using stimulus cards to obtain preferences for a set of experimentally chosen university profiles. The six attributes Hooley and Lynch (1981) identified were course suitability, university location, academic reputation, distance from home, type of university (modern/old), and advice from parents and teachers. The conjoint analysis suggested that course suitability was the most important attribute in determining university choice. Prospective students were prepared to accept almost any level of the other attributes as long they entered a course that they really wanted.

Oosterbeek *et al.* (1992) examined university choice and graduates in The Netherlands. Their objectives were to determine whether different universities were associated with different earnings prospects and whether the decision to attend a particular university was influenced by these prospects. They found that there were significant differences but ear prospects of earnings were not a particularly important factor in the choice of a specific university. Lin (1997) investigated the reasons for students' choice of an educational institution in The Netherlands. The most significant reasons for a student's choice of institution were the quality of education offered, career opportunities, the school's reputation, opportunity for traineeships, faculty qualifications, academic standards, availability of modern facilities, curriculum emphasis, student life and whether there was an international student body. Jackson (1982) noted that students will remove the alternatives on the basis of geographic, economic and academic factors with the evaluation process being affected by family backgrounds, social contexts and academic experiences. Chapman (1981) however, states that college choice is influenced by student characteristics (socio-economic status, aptitude, level of educational experiences and high school capabilities) as well as external motivations (impact from significant personnel, the fixed factors of an institution and the institution's

capabilities of communicating with potential students).

There has been no research which can tell us about the students' choice of management institutes in India. Past research shows that customers (in our case students) choose from a set of alternatives, the product/service that has the highest utility for them (McFadden, 1986; Ben-Akiva and Lerman, 1991; Louviere, 1988). After acquiring information and learning about the alternatives, consumers define a set of determinant attributes to use, and then compare products in a particular product/service class. After consumers form impressions of the positions of various alternatives on the determinant attributes, they make value judgements and combine information to form overall impressions of the alternatives. In order to do so, they have to make tradeoffs among different product/service attributes (Anderson, 1981, 1982).

### **Research Methodology**

Discrete choice experiments involve careful design of service profiles (a specific service) and choice sets (a number of services) in which two or more service alternatives are offered to decision makers and they are asked to evaluate the options and choose one (or none). Each participant in a DCA experiment typically receives several choice sets to evaluate, with two or more hypothetical services to choose from in each set. The design of the experiment is under the control of the researcher, and consequently, the decision makers' choices (dependent variable) are a function of the attributes of each alternative, personal characteristic of the respondents, and unobserved effects captured by the random component (e.g., unobserved heterogeneity or omitted factors). For a detailed theoretical and statistical background of DCA, please refer to Ben-Akiva and Lerman (1991) and McFadden (1986). Past studies have shown that in general, the market share predictions generated from the statistical models (e.g., multinomial logit or MNL) based on DCA are extremely accurate (Ben-Akiva and Lerman 1991; Green and Krieger 1996; Louviere and Timmermans 1990). Recent articles by Verma, Thompson, and Louviere (1999) have reviewed DCA literature and provide guidelines for designing and conducting DCA studies for services. Designing and conducting discrete choice experiments involves five steps. First, identifying the attributes, second specifying attribute levels, third designing an experiment, fourth

presenting sets of alternatives to respondents and fifth estimating a model.

For this research we have identified seven attributes such as reputation, fees, placements, international collaboration, Distance from house, Faculty strength and Infrastructure and Facilities. The

attributes and their levels were decided based on the past research and interview of students and faculty. Next, we used experimental design software to generate 8 orthogonal fractional factorial profiles of management institute. These profiles contained one of the two levels of the attributes presented in Table 1.

**Table 1:** Attributes of Management Institute selected for Experimental Design

S No.	Attributes	Levels
1	Reputation	1. High 2. Average
2	Fees	1. Between 4 to 6 lacs 2. Between 2 to 4 lacs
3	Placements	1. More than 100% placement, mainly in multinational and large Domestic Companies 2. Less than 100% placement, Mainly in Domestic companies
4	International Collaboration	1. Yes 2. No
5	Distance from house	1. Less than 24 Hours by train 2. More than 24 Hours by train
6	Faculty strength	1. Mainly Internal, most with Doctoral Degree and Industrial Experience 2. Mainly Visiting with either Industrial or Academic experience
7	Infrastructure and Facilities	1. Superior 2. Average

Table 1 presents the attributes their two variables and experiment design codes for all the variables. The experiment design matrix is presented in Table 2. The experiment design matrix presented in Table 2 was used to generate Discrete Choice Experiments for students. The eight profiles presented in Table 2 were paired with their respective fold over design. The attribute levels in the fold over design are the opposite

sign of the original design. The design code for all variables in the first profile is -1 there fore the fold over design code for all variable will be +1. In Discrete Choice Experiments students were asked to choose between institute with attributes presented in Table 2 and its fold over design institute or neither (see Table 3).

**Table 2: Experimental Design Matrix for Discrete Choice Experiments**

SNo.	Attributes	Profile							
		1	2	3	4	5	6	7	8
1	Reputation	1	-1	1	-1	1	-1	1	-1
2	Fees	1	-1	1	-1	-1	1	-1	1
3	Placements	1	-1	-1	1	1	-1	-1	1
4	Inter. Collaboration	1	1	-1	-1	1	1	-1	-1
5	Distance from house	1	1	-1	-1	-1	-1	1	1
6	Faculty strength	1	1	1	1	-1	-1	-1	-1
7	Infrastructure and Facilities	1	-1	-1	1	-1	1	1	-1

**Table 3: A Sample Choice Set**

Choice Set	Institute 1	Institute 2	
Reputation	High	Average	
Fees	Between 4 to 6 lacs	Between 2 to 4 lacs	
Placement	More than 100% placement, mainly in multinational and Domestic Companies	Less than 100% placement, Mainly in Domestic companies	
Inter. Collaboration	Yes	No	
Distance from house	Less than 24 Hours by train	More than 24 Hours by train	
Faculty Strength	Mainly Internal, most with Doctoral Degree and Industrial Experience	Mainly Visiting with either Industrial or Academic experience	
Infrastructure and Facilities	Superior	Average	
<b><u>I would Join</u></b>	(A)	(B)	(C) <b>Neither</b>

(Note: each student responded to 8 such choice sets)

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## Results

Table 4 shows the estimated multinomial logit model (MNL) for the sample of 101 students (or 1,616 responses). A negative sign means that the probability of a student selecting a particular management institute will increase if the level of that particular attribute is reduced. Similarly, a positive sign means that the probability of a student selecting a particular management institute will increase if the level of a particular attribute is increased. Higher the value of coefficients higher will be effect on probability of a student selecting a particular management institute.

The attributes with negative sign are fees and distance from house, of which former will have higher impact than the later. And the attributes with positive sign were placements, reputation, faculty strength, infrastructure and facilities, and international collaboration. The magnitude of influence is in that order, with placement being the most important and international collaboration has least influence on student choice criteria. Additionally, we standardized the design code (mean = 0; standard deviation = 1) for all the variables presented in Table 4 and so the absolute value of a coefficients represents an attribute's relative importance for the students.

**Table 4:** Estimated Multinomial Logit Model for Customers (101 randomly selected students responded to 16 choice sets, each. Therefore the model is based on 1616 responses)

S No.	Attributes	Estimated Model
1	Reputation	0.315113
2	Fees	-0.404510
3	Placements	0.53256
4	International Collaboration	0.094981
5	Distance from house	-0.200595
6	Faculty strength	0.260034
7	Infrastructure and Facilities	0.237853
8	Intercept	-0.003649

Note: \*p-value < 0.05

## Conclusion and Implications

This study has presented an approach understanding student's preferences for management institutes in India. For this purpose we used discrete choice experiments which are earlier used by many researchers in various service contexts. This study was designed primarily to study how students make trade off among reputation, fees, placements, international collaboration, distance from house, faculty strength and infrastructure and facilities. In order to

understand student's choice pattern students were asked to choose between institute with attributes presented in Table II and its fold over institute design or neither. The results presented in this article show that students perceive placement as the most important institute attribute, followed by fees which has an inverse relation. The findings of the study provide insights into what is important to students and may be used to develop and implement effective institution building plan, develop positioning and communication, plan guidelines to prioritize management initiatives,

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and maximize net gain from such plans. Findings provide insights to management institutes about students' priorities and choice process; provide information to prospective students on issues related to selection of management institutes and government and regulatory bodies may use the insights in framing the future policies for management institutes.

The objective of this article was to understand student's choice patterns. Similar studies should be undertaken to further the knowledge of student preferences. Further studies are also required to validate the results presented in this study and obtain more generalizable results. For example, our analysis was based on a relatively small sample size, both in terms of the number of respondents and in terms of the institute studied. It is possible that the student preference varies from institute to institute and/or within different geographical regions.

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