



## Students' Preference for Online Course in Iran and Ghana: A Conjoint Analysis

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### Abstract

There is now intense competition among tertiary education providers due to proliferation of private and public universities offering online and offline courses. The role of marketing is becoming more important among universities as competition in the environment is getting more intense. One main approach that can facilitate the universities marketing activities is understanding what determines students' online course preference. This study aims at examining the factors that influence student's preference for online education. The purpose of this research is two fold: to investigate the number of attributes that are important for a student in opting for pursuing online course and to help universities marketing effort and the understanding of what determines a student's preference for online education. Conjoint analysis was used to investigate the number of attributes in prospective students in Ghana and Iran. The results indicate that the four most important determinants of preference for online course were course suitability, quality of teaching, quality of the course and library services which are important for education strategist to consider when developing and rolling out marketing campaigns and programmes.

*Keywords:* Online education; Course selection; Conjoint analysis

### 1. Introduction

Distance education has been of great importance for learners. When offered in the traditional way, it is called "correspondence education" (Evans and Haase, 2001) or its new forms such as video conference, teleconference, or simply online education. Distance education is of great interest to people with limited time and/or moving facilities. Many universities offer full-time online programmes or separate courses in different fields such as business education and instructional design (Evans and Haase, 2001; Ku and Lohr, 2003). Students express different preferences and attitudes toward these courses. Differences in culture, values, language barriers and learning format highly impact the preferences and the degree of acceptance of the online education experience (Ku and Lohr, 2003).

Traditional class attending system continues to be the major way of presenting courses to students. Nevertheless, online education is also expanding as it offers unique opportunities for people with particular

conditions or whose occupations will not allow them get education that requires physical presence. In this paper, we explore the factors that influence choosing on-line programme, focusing on online Master's degree or courses and how important each factor influence prospective student selection of online studies. The paper begins with the review of factors affecting student selection of their studies, leading to the presentation of conjoint analysis technique adopted for empirical study, analysis and findings. Finally the paper will conclude by providing managerial implications, limitations and future research directions.

#### 1.1. Online education

In the last decade, research on education has largely focused on the comparison between the traditional way of education and the internet based courses (Moore and Thompson, 1990; Langan 1997; Russel, 1998), and technical issues students may encounter with online education (Schrum, 1998).

Other studies analysed students' achievements through these programmes (Hara and Kling, 2000) and their satisfaction (Evans and Haase, 2001). Less attention has been given to the earlier stages of the preference, selection and registration for an online course as experienced by the students or practitioners.

Learners consider many factors when determining their preference for a particular university, a programme or a course, whether it is traditional or online. Studies by (Evans and Haase, 2001; Soutar and Turner, (2002) focused on the students selection of online business education. Hooley and Lynch, (1981) examined the decision process that prospective students undertake in order to enrolled in UK universities. They adopted the conjoint analysis technique to trade off student's choice of attending a particular university in UK. Langan (1997) has shown that online education has challenges that made it a complex experience for some participants and an unfruitful investment for others.

### 1.2. Factors affecting online programme selection

Several researches have highlighted the role perception plays in marketing and services provided by the universities and institutions for online programmes (Sun *et al.*, 2008). Some of these studies have investigated students' choice of the traditional universities in specific countries, such as USA, Australia and Netherlands (Oosterbeek H Groot W and Hartog J. 1992.; Mazzarol, T. Soutar, G.N and Tien, 1996; Lin, 1997 and Turner, 1998). The focus has been on international students' choices for foreign universities. Using qualitative research, descriptive analysis, factor analysis and ranking, these studies revealed many attributes that determine the selection made by the students. These determinants, which were used by Soutar and Turner (2002), indicated that requisites for the students selecting online programme have been: "prospect earnings", recognition of their qualifications by future employer, institution reputation for quality, University's willingness to recognise previous qualification, staff's reputation for quality and expertise, quality of the education offered, career opportunities, school's reputation, opportunity for traineeships, faculty qualifications, academic standards, availability of modern facilities, curriculum emphasis, student life and existence of international students in that university.

For online course selection, Evans and Haase (2001) investigated this first stage of the enrollment process with a large scale of potential online business

students. The study considered the potential learners traits and desires using a major survey with 2651 adults and has tested eight propositions relating to demographics, courses versus programmes, reasons for enrolling and not enrolling, desire features, customer expectations, tuition, prestige and value, and institutional attributes such as accreditation, tuition, and reputation have been among the institutional factors that students consider the most in choosing online education. Also, some of the support service as online library services, online registration, online bookstore, and online accessible designated faculty were highly considered.

Furthermore, Bocchi, *et al* (2004) in their study of 35 cohort students pursuing web-based MBA programme and various courses online at University Georgia in the US found out that accreditation, accessibility, convenience, fit with career and personal growthplans were the major determining factors for enrolling on the web based MBA programme. Moreover, the programme had high retention rate because of excellent cohort and team-based learning experience with extensive faculty feedback and interaction, application -based content and activities. On the universities choice studies made through conjoint analysis approach.

Hooley and Lynch (1981) examined the choice processes of prospective students in UK universities. First, a qualitative research was conducted to define the attributes, the attributes were then used for a face-to-face interview. The authors used stimulus cards to see the preferences of the respondents on a set of universities profiles. They identified six attributes: course suitability, university location, academic reputation, distance from home, type of university (modern, old) and advice from parents and teachers. Students showed a definite preference for the course suitability independently of all other criteria.

Results from these studies showed that the selection was mainly based on the academic position of the university, the services offered by that university and the qualifications of its personnel. Based on the preceding discussions, the following research questions were formulated

- i. How important are the attributes selected for conjoint analysis?
- ii. How do the attributes influence online programme or course selection?

## 2. Methodology

Two hundred and seventy five (275) students from two university campuses in Ghana and Iran took part in study. A total of 21 students could not complete the questionnaire online because they are not internet users. They were excluded from the study's analyses resulting in the a sample of 254. The participants were (47) from University of Education Winneba, Kumasi campus and (228) from university of Iran Tehran campus. There is little possibility of balance sample size from the two countries because of less accessibility of Internet connection in Ghana compared to Iran. There were 150 men and 104 women in the sample. The average age was 28 years. Eighty percent were undergraduate students and 20% were in Master's programme.

Data were collected using convenience sampling method and self-administered online questionnaire. The respondents were contacted via email by their lecturers to participate in the study and the web link of the questionnaire was sent to their emailing list. The respondents were given a period of two weeks to complete the questionnaire. The conjoint analysis method was used in order to analyse the data collected from 275 students. Two surveys instruments were designed to collect the data for this research. The first questionnaire provided the respondents profile (gender, age, highest education degree, current position, personal income and /or parents income, the country of origin and the country where they are living.

The Second concerned the conjoint section of the questionnaire. A conjoint analysis is multivariate technique that attempt to determine the relative importance respondents attached to salient attributes and the utilities they attached to the levels of the attributes. Respondents are presented with stimuli that consist of combination of attribute levels, and they are asked to evaluate these stimuli in terms of their desirability (Maholtra and Birks, 2008).

The conjoint analysis in this study was developed using Excel spreadsheet and led the students through the following stages:

- i. First, students were asked to consider how important each attribute, the attributes were: course suitability, quality of teaching, quality of course, library services, administrative services, academic reputation, contributes to the selection of the institution for an online course or programme.

- ii. From the data collected on the first questionnaire, concepts were designed using retained attributes and their correspondent levels were proposed to the same respondents in a second questionnaire.

Selection of the six attributes were made in the first stage of the data collection from the questionnaire in order to use the conjoint analysis properly. Previous studies mostly used six attributes or less (Green and Srinivasan, 1990; Gustafsson, *et al.*, 1999). The number of attributes to use depend on the nature of the respondents and their availabilities. In the present study we limited the questionnaire to the concepts formulated by six attributes and two correspondent levels for each. Three of the attributes: course suitability, quality of teaching, and academic reputation included in this study were obtained from prior study undertaken by Soutar and Turner study (2002) and the remaining attributes (online library services, quality of teaching and online administrative services) were included as discussion with the university authorities suggested that it might influence student decision making process.

The conjoint analysis is a technique that has been widely used to help companies forecast how likely would be the acceptance of a new offer (Sawtooth Software inc., Orme, 2009). This method has been used in other fields as well; mainly educational and medical fields (Soutar and Tumer, 2002; Kellet *et al.*,2006). conjoint analysis survey should include specific steps to ensure good, collection, analysis and interpretation of the results. This study on the students' preferences for online Master degree programme was made based on two main steps that consolidated and considered the conjoint analysis application stages (Churchill, 1988, 1995) using Microsoft Excel spreadsheet to analysed the data from the questionnaire. And the results is presented in table 2. Table 1 list the attributes identified for this study and two corresponding levels each, the attributes are shown in the first column of table 1 and the two levels in the second column of table 1

**Table 1**  
Conjoint attributes and levels

Attributes	Levels
Course suitability	Just suitable course to what I want
	More or less suitable course to what I want
Quality of teaching	Good quality of teaching
	Average quality of teaching
Quality of the course	Good course quality
	Average course quality
Library services	Good library services
	Average library services
Administrative services	Good administrative services online
	Average administrative services online
Academic reputation	Strong academic reputation
	Average academic reputation

### 3. Results

Table 2 show the list of the attributes and their relative importance, the two levels of each attribute and their corresponding average utility score.

**Table 2**  
Conjoint analysis results: utilities and relative importance

Attributes	Relative	Levels	Average utility
Course suitability	32%	Course suitability –just what I want	211.91
		Course suitability -More or less what I want	55
Quality of teaching	19%	Teaching quality-very good	31.5
		Teaching quality-average	1
Quality of the course	15%	Course quality-very good	147.59
		Course quality-average	2
Online library services	13%	Library services-very good	79
		Library services-average	1.88
Online administrative services	12%	Administrative services - Good	25
		Average administrative- average	10.2
Academic reputation	9%	Academic reputation- Strong	23
		Academic reputation- Average	1.7

The average utility scores, also called part-worth utility shown in fourth column of Table 2 indicate the desirability of the various aspects of an attribute. Higher scores suggest that respondents had a greater preference for that aspect. For example when the utility scores are examined closely it can be seen that respondents have greater preference for the course that they really wanted (211.91), good quality course (147.59), good library services (79) and very good teaching quality (31.35) and academic reputation (23).

The second column in Table 2 “the relative importance” indicates the importance of each attribute comparing to other attributes. For example;

overall respondents' preferences are determined by course suitability (which explained 32% of the range in preference) more than academic reputation (which explained 9 % of the range in preference).

The results show that major determinants of students preferences for online courses and the relative importance are: course suitability (32 %), quality of teaching (19 %), quality of the course (15 %) online library services (13 %), online administrative services (12 %), academic reputation (9 %). In order to be more accurate in determining whether students put more emphasis on some attributes than, we run a cluster analysis on the utility scores. The analysis



shows that classifying the attributes in different clusters and the proposition of different combinations did not change the relative importance of each attribute in the selection process. Moreover, results show that students from both countries have the same priorities to consider and common preferences while selecting an online course or program. Therefore, the universities offering online courses or programmes need to develop generic marketing strategies as against targeted marketing strategies. Although, this appears to be a straightforward strategy, the focus should be on the factors with higher importance for the upcoming students.

#### 4. Conclusions and marketing implications

The present study analysed how Ghanaian and Iranian students trade-off online Masters Degrees programmes or courses. Results show that students, in these two countries, have similar preferences and priorities on the attributes that impact their decision in selecting online programme instead of face to face mode of delivery. The four most important factors are course suitability, quality of teaching, quality of the course and online library services. Course suitability has the highest attribute ratings and relative importance of (32%), while the lowest rating attribute (academic reputation) has a relative importance of (9%). This suggests relatively easy development of online course selection preference by the students, however final preferences may be determined by taking into account other factors when making judgments. Results from the present study support Hooley and Lynch (1981) and Soutar and Turner (2002) results. The latter presume that course suitability is the most significant attribute for programmes and universities' selection. However, this research reveals that the quality of teaching is more important attribute than academic reputation. The course suitability remains, with the highest level of the part worth utility, to be the most meaningful criteria for a course selection whether the course is delivered online or off line. Other attributes identified with these two studies were not considered for our study as they relates to physical distance to the university and relationship with friends and families.

The study gave insights on the people's decision making. It provided a solid approach for understanding the way students would trade off between among various attributes. It provides an understanding of the attributes that are more likely to

create an added value to both the student and the universities authorities and will go a long way to help institutions to identify what attributes people would look for in online Master's degree studies. Factors to be considered in the decision making process are different from an educational system to another; for example this study and previous ones on universities selection argue that there is difference between undergraduate and Master's degree education and between traditional physical presence in classrooms and online education. Even though, the present study could not point out the existence of segments among the respondents, conjoint analysis on larger sample would give insights into the existence of relevant groups. This will give managers an opportunity to determine the target specific groups and define the appropriate online/offline marketing strategies in order to attract them to their preferred programmes and courses. In this regard, the universities better answer the students' needs.

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