School Choice of Computing Students: A Comparative Perspective from Two Universities

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This descriptive study utilized a validated questionnaire to determine the profile of two sets of students and their level of consideration in deciding to enroll in their University. It also determined whether their level of consideration in deciding to enroll in their University significantly differed from each other. It was found out that most of the University of the East (UE) and National University (NU) respondents were male respondents taking up Information Technology. They did not have a home province, lived in Manila and Quezon City, lived in family-owned houses, belonged to a family with five family members, and travelled at least an hour in going to school through jeepneys. On the other hand, they were different in terms of family monthly income (most of the UE respondents belonged to a family with a higher family monthly income) and number of family members who studied in the University (most of the NU respondents had at least one member who studied in the same university). It was also noted that more than a quarter of NU respondents lived near their school. UE and NU respondents agreed that they considered nine and five, respectively, of the eleven institutional image indicators in deciding to enroll in the university. UE respondents had the highest consideration on admission process and course offering while NU respondents had the highest consideration on scholarships and grants. Test of difference between means revealed that the level of considerations of the respondents on the institutional image indicators significantly differed in nine out of the eleven indicators. Thus, the null hypothesis stating that there is no significant difference in the level of consideration of the respondents in deciding to enroll in the two universities in terms of institutional image indicators is partially rejected. Conclusions, recommendations, and limitations of the study were also discussed.

Keywords: Competition; Computing Students; Information Technology; Institutional Image; School Choice; School Marketing

Introduction

Education is regarded as a very important commodity. Such importance has been viewed in individual and national levels. In the individual level, a person can become confident, aware, and active in the society (Ur Rehman et al., 2010; Vaduva et al., 2011). In the national level, education plays an important role in the socio-economic development of the country (Ur Rehman et al., 2010). It can accelerate economic growth (Ur Rehman et al., 2010), and develop the human resources skills (Ur Rehman et al., 2010; Ud Din et al., 2011) of the nation. A nation with uneducated people could be left behind in every field of life (Bashir et al., 2011).

Higher education institutions (HEIs) are committed to serving these demands. However, HEIs all over the world are experiencing financial problems in sustaining their daily operations. Banya & Elu (2001) reported that HEIs in Sub-Saharan African lacked resources and needed multiple means of funding. In Pakistan, lack of financial resource was accounted as one the impediments in enhancing the quality of public higher education (Khan & Iqbal, 2011). It was observed in the Middle East and North Africa (MENA) countries that the demand for higher education was increasing (Nahas, 2011). Along with this observation, HEIs in MENA countries, except Lebanon, were also

facing financial problems (Nahas, 2011). In Jordan, the non-control over student tuition fees and student enrollment posed funding constraints to HEIs (Kanaan et al., 2011). Universities are striving to continue serving the demand for education stimulated by demographic changes, technological innovations, and a more competitive labor market environment at a time of tight budgetary constraints (Fahim & Sami, 2011).

Private HEIs (PHEIs) are financed through gifts, grants, research contracts (Leifner, 2003), but primarily through tuition fees (Leifner, 2003; Ho & Wang, 2011; Kanaan et al., 2011; Kabbani & Salloum, 2011). Tuition fees greatly depend on student enrollment. A significant decrease in the student enrollment could greatly affect the finances of the schools.

Universities in the Philippines offering degree and non-degree programs in computing (Information Technology, Computer Science, Information Systems, and Associate in Computer Technology) are also experiencing the same problem. This is aggravated by the fact that the interest in a career in programming is declining (De Raadt, 2004) and few women are attracted to the field of computing (De Raadt, 2004; Tsagala & Kordaki, 2007; Leiviskä & Siponen, 2010). Other problems were related to the antisocial image of technology courses, the cyclic nature of demand on the degree, and the notion of out-

sourcing of technology jobs overseas (Lenox et al., 2008). The recent moratorium of the Commission of Higher Education (CHED) of the Philippines on computing degree programs also significantly affects the enrollment on the said degrees. Also, the imminent outcomes on university enrollment of the implementation of K-12 program of the Philippine government will also be felt in the future. As such, PHEIs are now actively informing possible enrollees what they could offer. PHEIs are now driven towards competition brought by these political and economic forces.

Philippine HEIs are now employing marketing techniques and business models to inform possible enrollees. However, there is a dearth of studies on what students consider in deciding to enroll in a school in Philippine setting. Though marketing strategies might work, the lack of solid and sound basis for such strategies is apparent. As a consequence, school choice in a local setting is almost unknown. Thus, this study was conceived.

Toward these goals, the study sought answers to the following questions: 1) What is the profile of the freshmen in terms of gender, degree program, home province, city home location, type of house residence, household income, number of family members, number of family members studying in the same university, travel time from house to school, and mode of transportation? 2) What is the level of consideration of the respondents in deciding to enroll in the University in terms of institutional image indicators, such as Tuition Fee, Tuition Fee Payment Scheme, Admission Process, Schedule of Classes, Course Offering, Facilities, Faculty Profile, Scholarships and Grants, Kinship Patronage, Security in Campus, and Accessibility? and 3) Is there a significant difference in the level of consideration of the respondents in deciding to enroll in the two Universities in terms of the institutional image indicators?

The paper was subdivided into five main sections in order to answer the above questions. In Literature Review section, studies conducted related to this research were presented. This section also served as basis in the formulation of the Research Paradigm and Hypothesis of the study. The Methodology part presented how data were analyzed and followed immediately by the Findings and Discussion. The summary of the study was presented in Conclusions, Recommendations, Limitations, and Future Research.

Literature Review

Literature shows that competition has benefits. Harrison (2005a) and Novak (2006) commented that competition is a powerful tool that can be used in the school sector to benefit the consumers (i.e., students) and raise productivity. Competition may contribute to improve the quality of education (Gabriel et al., 2008; Bukowska & Siwinska-Gorzelak, 2011). School administrators are compelled to make improvements and developments in their schools because of pressure from competitors and the need to attract students (Harrison, 2005b; Duarte et al., 2010). Most schools that cannot cope with the competition are likely to be left behind in attracting students. Unsatisfied students may drop out (Belanger et al., 2002) and may move to a superior private school (Harrisson, 2005a). In other words, schools in the different parts of the world are stimulated by competition and are promoting choice among consumers (Gabriel et al., 2008).

Szekeres (2010: p. 429) commented that "the climate of competition for students in the higher education sector makes it imperative that institutions increase their marketing efforts, both domestically and internationally, to help sustain student numbers." This makes competition over possible enrollees stiffer (Szekeres, 2010). They are now competing for students (Duarte et al., 2010) in terms of not only their abilities and cognitive skills but also their social background (Robert, 2010). This resulted in applying a number of standard marketing practices in higher education institutions (Szekeres, 2010).

Universities are employing marketing strategies to inform possible enrollees on what they could offer. It was found out that successful recruitment strategies could attract students (Kerstetter, 2011). Rizvi & Khan (2010) clarified that marketing in schools is not only about informing their clients or customers, but also knowing that what is required by the clients or customers thus ensuring that the schools give ultimately the product and service they need while maintaining its quality. Schools are maintaining and looking for ways to improve their image ("the organization's portrait made in the mind of a consumer") and reputation ("the degree of trust or distrust in an organization's ability to meet customers' expectations on a given attribute") (Nguyen & LeBlanc, 2001: p. 305).

Many articles were written to determine what were considered by the students in choosing a school. Hu and Hossler (2000) found out that tuition fee was directly related to the preference of students in choosing a school. Fee, a component of price, was one of the factors in choosing a school in England (Maringe, 2006). The studies of Jackson (1980) and Pereda et al. (2007) also had similar findings. Flexibility of tuition fee payment was also considered (Maringe, 2006). Salahuddin et al. (2008) also confirmed through factor analysis that flexibility of tuition fee payment was found to be one of the important factors in choosing a private university.

Students would apply in schools that would accept them (Drewes & Michael, 2006). For example, one of the most important choice factors in choosing a school of Canadians in the United States was grade requirements (McCarthy et al., 2012). This shows that students considered the admission procedures and policies of the school. This was found to be consistent in the study of Sidin et al. (2003). Students also had consideration for schedule of classes that allotted time for extra-curricular activities (Parker et al., 2007), and offered face-to-face and web-based study (Hagel & Shaw, 2008).

Kerstetter (2011) advocated that degree offerings of a school should be one of the foci of marketing strategies. This was found to be correct in the literature. Reddy (2011) found out that academic offerings were one of the factors in choosing a business school of Indian students. Canadian students studying in the United States also considered this factor in choosing a school (McCarthy et al., 2012). Meanwhile, Pauline (2010) revealed that Lacrosse players of the National Collegiate Athletic Association chose a college that could provide an academic program that would lead to career opportunities after graduation.

The overall impression of quality education was significantly correlated (positively) with the quality and accessibility of the IT facilities. It also predicted students' satisfaction (Brewer & Carnes, 2008; Nadiri et al., 2009). This factor was also supported by Shah and Nair (2010), and McCarthy et al., (2012). Quality of teaching staff (Shah & and Nair, 2010; McCarthy et al., 2012) was also an important choice consideration for the students since the kind of teachers greatly affected the learning

outcomes of the students.

Scholarships and grants for financially challenged yet bright students could also contribute to the institutional image of the University. This factor was also found to influence school choice (Pauline, 2010; Kerstetter, 2011; McCarthy et al., 2012). Kinship patronage in the forms of recommendations of friends and family members was also found to influence school choice (McCarthy et al., 2012).

Students spent most of their time in school. In the study of Warrington (2005 cited in Andre-Bechley, 2007), it was found out that school location was important to working parents because they were concerned about the violence or crime in the area. Thus, security was considered an important factor of school choice (Belanger et al., 2002).

Dahari & Ya (2011) argued that young children should not spend long periods of time in going to school. They found out that parents in Malaysia would send their children to schools close to their homes or close to their workplace. Thus, accessibility of school was considered a factor in school choice.

Research Paradigm and Hypothesis

The foregoing review of related literature and studies served as basis for the formulation of the research paradigm below.

Figure 1 shows the two sets of respondents—computing freshmen from the University of the East and those from National University. A validated questionnaire provided data on their demographic profile and their level of consideration in deciding to enroll with respect to the eleven institutional image indicators. With the use of proper statistical tools, the difference between their levels of consideration in deciding to enroll in the University with regard to the eleven institutional image indicators was also determined. To this end, it was hypothesized (H_0) that there is no significant difference in the level of consideration of the respondents in deciding to enroll in the two universities in terms of the institutional image indicators.

Methodology

Research Design, the Subjects, Sample Size, and Sampling Design

The study employed a descriptive design. It used a descriptive-survey as the research instrument. Freshmen taking up Information Technology (IT)-related degree and non-degree programs from the National University and University of the East answered the questionnaire. There were 147 (5 class sections) and 667 freshmen (18 class sections) at the National

Figure 1.
The research paradigm.

University (NU) and University of the East (UE), respectively. Sloven's formula with an error of 5% was utilized to compute for the sample sizes. The sample size for NU was 110. To accommodate a low return rate, 120 were distributed and 113 were retrieved. These were all used in the analysis.

On the other hand, one hundred (100) students who participated in the pretest of the questionnaire were deducted from the total population of UE respondents. Thus, the actual population considered for UE was 567 and its computed sample size was 235. Two hundred eighty-eight (288) forms were distributed to accommodate a low return rate. Two hundred seventy-seven (277) were retrieved and all of these were used in the analysis.

Students were randomly selected through their class sections. The class sections were written on a piece of paper and were randomly picked out. Students (regardless of age, gender, etc.) of the selected sections answered the questionnaire. **Table 1** shows the details of forms distributed and retrieved per section. (The names of the sections were changed to protect the privacy of the students.)

Research Instrument, Validation of the Research Instrument, and Statistical Treatment of Data

The questionnaire consisted of two parts. The first part gathered data on the profile of the respondents in terms of name, gender, degree program, home province, etc.

The second part of the questionnaire determined the level of consideration in deciding to enroll in the university with regard to institutional image indicators, such as tuition fee, tuition fee payment scheme, admission process, schedule of classes, course offering, facilities, faculty profile, scholarships and grants, kinship patronage, security in campus, and accessibility. Questions were based on the last stage of school choice—matriculation stage (Chapman, 1986). All questions began with the phrase "*I decided to enroll in the university because…*". They could respond from 1 (Disagree) to 5 (Strongly agree) (See **Table 2**). The mean and mean ranges (shown in **Table 2**) were utilized to determine the level of consideration in the choice of the university.

The questionnaire was pretested to 100 freshmen. Confusing and vague words were revised based on the pretest. The validity and reliability of questionnaire were determined through factor
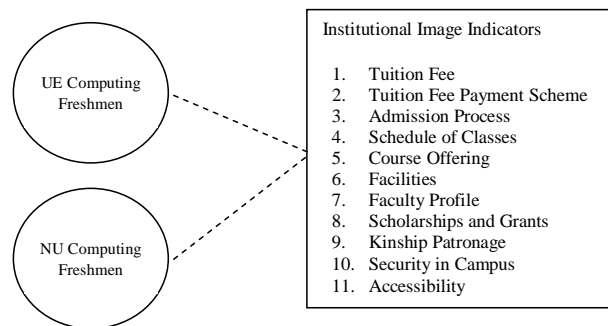
Table 1.
Distributed and retrieved survey forms.

	UE			NU	
Section	Distribution	Retrieved	Section	Distributed	Retrieved
A	40	38	A	30	29
B	39	37	B	30	27
C	12	12	C	30	29
D	40	38	D	30	28
E	39	37			
F	38	37			
G	40	39			
H	40	39			
TOTAL	**288**	**277**	**TOTAL**	**120**	**113**

Table 2.
The 5-point scale, its mean range, and verbal interpretation.

Weight/Scale	Mean Range	Verbal Interpretation
5	4.51 - 5.00	Strongly agree
4	3.51 - 4.50	Agree
3	2.51 - 3.50	Moderately agree
2	1.51 - 2.50	Slightly agree
1	1.00 - 1.50	Disagree

and Cronbach alpha analyses. Factor analysis determined the validity of the questions that made up each variables (Dancey & Reidy, 2002) while Cronbach alpha analysis determined the internal consistency of the questions (Alese & Owoyemi, 2004). Factor and Cronbach's alpha analyses revealed that all constructs were found to be valid (factor loading ≥ 0.50) and reliable ($\alpha \geq 0.70$) (George & Mallery, 2009; Pallant, 2001). **Table 3** shows the validity and reliability of the constructs.

Frequency counts, percentages, and mean were utilized to describe the data. Maps were used to show the place of residence of the respondents. Test of difference (independent samples) was used to determine whether there was a significant difference in the level of consideration in deciding to enroll in the University. Test of difference (independent samples) is used "when the participants perform in only one of two conditions, i.e., an independent, between-participants or unrelated design" (Dancey & Reidy, 2002: p. 206). A 5% level of probability with 95% reliability was adopted to determine the degree of significance of the findings.

Findings and Discussion

Profile of the Respondents

Table 4 shows the profile of the respondents. The profile of NU and UE respondents shared common characteristics as shown in **Table 4**. Most of the respondents were taking up degree program in Information Technology (NU: f = 95% or 84%; UE: f = 227% or 82%), male (NU: f = 74% or 65%; UE: f = 208% or 75%), do not have a home province (NU: f = 38% or 34%; UE: f = 77% or 28%), lived in family-owned house (NU: f = 50% or 44%; UE: f = 164% or 59%) in the city of Manila (NU: f = 62% or 55%; UE: f = 110% or 40%), and belonged to a family with five family members family-owned house, and spent an hour or less (NU: f = 97% or 86%; UE: f = 110% or 76%) in going to school by means of jeepneys (NU: f = 73% or 65%; UE: f = 204% or 74%).

Meanwhile, the profile of respondents of the two universities also differed in some aspects. Most NU respondents belonged to families whose monthly income did not exceed Php 40,000 (about US $1000) while UE respondents belonged to families whose monthly income was at least Php 40,000. In terms of number of family members who studied in the same university, fifty-one percent (51%) (f = 57) of NU respondents had at least one member of the family who studied in NU. On the other hand, fifty-four percent (54%) (f = 151) of UE respondents did not study in UE.

The average travel time of NU respondents (average travel time = 40 minutes) was shorter than that of UE respondents (average travel time = 54 minutes). Twenty-six percent (f = 29% or 26%)

of NU respondents could reach the school by walking while only a small portion (f = 26% or 9%) of UE respondents was living within in the vicinity of the school. The disparity was attributed to the location of the two universities (See **Figures 2** and **3**. Maps were taken from Google Map). Ocular inspections revealed that residential houses were situated near NU. Thus, students living near NU would only reach the school in less than five minutes. On one hand, UE is situated in a more commercialized area where business establishments outnumber the residential houses.

Level of Consideration in Deciding to Enroll in the University

Table 5 shows that NU respondents rated "Agree" (Admission Process = 3.71, Schedule of Classes = 3.59, Course Offering = 3.77, Faculty Profile = 3.78, and Scholarship and Grants = 3.86) on five of eleven institutional image indicators. The findings support the findings of Drewes & Michael (2006), and Sidin et al. (2003) on Admission Process; Parker et al. (2007),

Table 3.
Validity and reliability of constructs.

| Institutional Image Indicators	Factor Loading	Cronbach's alpha
Tuition Fee[*]	0.779	0.709
Tuition Fee Payment Scheme	0.875	0.781
Admission Process	0.692	0.758
Schedule of Classes	0.751	0.832
Course Offering	0.810	0.820
School Facilities	0.637	0.831
Faculty Profile	0.777	0.844
Scholarships and Grants	0.850	0.760
Kinship Patronage	0.814	0.738
Security in Campus[*]	0.697	0.719
Accessibility	0.698	0.795

Note: [*]One item was deleted.
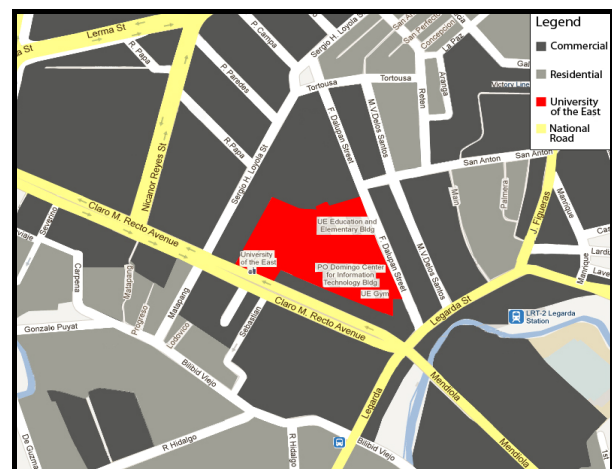
Figure 2.
Map Showing the Location of the University of the East.

Table 4.
Profile of the respondents.

| Profile of the Respondents	Findings			
	NU		UE	
	f	%	*f*	%
Degree Program				
Information Technology	95	84	227	82
Computer Science	18	16	48	17
Associate in Computer Technology	-	-	2	1
Gender				
Male	74	65	208	75
Female	39	35	69	25
Home Province				
None	38	34	77	28
Region III	27	24	32	12
Region IV-A	15	13	69	25
Other Provinces	33	29	99	35
City Address				
Manila	62	55	110	40
Quezon City	18	16	56	20
Other Parts of Metro Manila	33	29	111	40
Type of House Residence in the City Address				
Family-Owned	50	44	164	59
Apartment-Rented	30	27	46	17
Others	33	29	67	24
Family Monthly Income				
Less than or Equal to Php 40,000	77	68	137	49
Greater than or Equal to Php 4000	36	32	140	51
Travel Time*				
An Hour or Less	97	86	110	76
More than an Hour	16	14	67	24
*Average Travel Time: *NU* = 40 *min*; *UE* = 54 *min*				
Mode of Transportation				
Jeepney	73	65	204	74
Walking Distance	29	26	26	9
LRT/MRT	20	18	95	34
Average Number of Family Members	5	-	5	-
Number of Family Members Studied in the University				
None	56	49	151	54
At Least One (1)	57	51	126	46
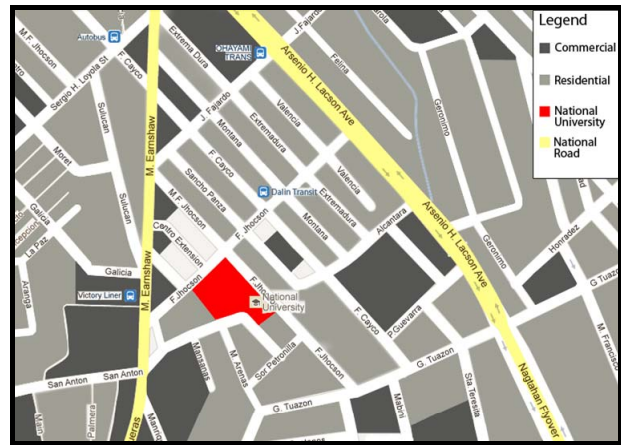
Figure 3.
Map showing the location of the national university.

Table 5.
Level of consideration in deciding to enroll in the university.

Institutional Image Indicators	NU Respondents		UE Respondents	
	Mean	V. I.*	Mean	V. I.*
Tuition Fee	3.00	Moderately agree	3.28	Moderately agree
Tuition Fee Payment Scheme	3.38	Moderately agree	3.77	Agree
Admission Process	3.71	Agree	**4.04**	**Agree**
Schedule of Classes	3.59	Agree	3.97	Agree
Course Offerings	3.77	Agree	**4.04**	**Agree**
Facilities	3.43	Moderately agree	3.85	Agree
Faculty Profile	3.78	Agree	4.03	Agree
Scholarship and Grants	**3.86**	**Agree**	3.99	Agree
Kinship Patronage	2.76	Moderately agree	2.97	Moderately agree
Security in Campus	3.08	Moderately agree	3.54	Agree
Accessibility	3.25	Moderately agree	3.56	Agree
OVERALL MEAN	3.42	**Moderately agree**	3.73	**Agree**

Note: *V. I. = Verbal Interpretation.

and Hagel & Shaw (2008) on Schedule of Classes; Kerstetter (2011), Reddy (2011), McCarthy et al. (2012), and Pauline (2010) on Course Offering; Shah & Nair (2010), and McCarthy et al. (2012) on Faculty Profile; and Pauline (2010), Kerstetter (2011), and McCarthy et al. (2012) on Scholarships and Grants.

Scholarships and Grants got the highest mean rating while Kinship Patronage (mean rating = 2.76, "Moderately agree") got the lowest mean rating. Follow-up interviews with the NU respondents confirmed that they decided to enroll in their University because of the financial assistance and the prestige of the scholarship provided by their school.

As shown in **Table 1**, most of NU respondents belonged to a Php 40,000 or less-family monthly income. The average tuition fee per semester for IT-related degree programs in NU is about Php 32,000 (US $800). Thus, a high consideration on Scholar-

ship and Grants can be attributed to the financial capability in paying tuition fees of the NU respondents. This implies that NU should inform possible enrollees, especially those who belong to a Php 40,000 or less family income, about the financial assistance they could offer.

Meanwhile, UE respondents "Agree" that they considered nine institutional indicators in choosing their school. These indicators were Tuition Fee Payment Scheme (mean rating = 3.77), Admission Process (mean rating = 4.04), Schedule of Classes (mean rating = 3.97), Course Offering (mean rating = 4.04), Facilities (mean rating = 3.85), Faculty Profile (mean rating = 4.03), Scholarship and Grants (mean rating = 3.99), Security in Campus (mean rating = 3.54), and Accessibility (mean rating = 3.56). Admission Process and Course Offering got the highest mean ratings while Kinship Patronage got the lowest mean rating.

Studies found to be consistent with these findings are given below.

- Tuition Fee Payment Scheme—Maringe (2006), Salahuddin et al. (2008), McCarthy et al. (2012)
- Admission process—Drewes & Michael (2006), and Sidin et al. (2003)
- Schedule of Classes—Parker et al. (2007), and Hagel & Shaw (2008)
- Course offering—Pauline (2010), Kerstetter (2011), Reddy (2011), and McCarthy et al. (2012)
- Facilities—Brewer & Carnes (2008), Nadiri et al. (2009), Shah & and Nair (2010), and McCarthy et al. (2012)
- Faculty profile—Shah & and Nair (2010), and McCarthy et al. (2012)
- Scholarship and Grants—Pauline (2010), Kerstetter (2011), and McCarthy et al. (2012)
- Security in Campus—Warrington (2005 cited in Andre-Bechley, 2007), and Belanger et al. (2002)
- Accessibility—Dahari & Ya (2011)

Admission Process refers to the convenience of admission (i.e., from acquiring an application form) to enrollment (i.e., selecting subjects and paying tuition fees) procedures. This shows that respondents decided to enroll in UE because of its fast and convenient admission procedures. Moreover, Course Offering in UE portrays a good image as perceived by the respondents. Course Offering refers to the prestige (e.g., high level of accreditation status, demand and popularity of the degree program, and government-recognized degree programs) of the degree programs offered by the University.

These findings reveal that UE portrays the best institutional image in terms of its Admission Procedures and Course Offerings. These findings also suggest that UE administrators should continuously find ways to improve the admission procedures and to seek higher level accreditation status of its IT-related degree programs. In other words, they should direct their marketing strategies to those students whose major considerations in deciding to enroll in the University are convenient and fast admission procedures, and established IT-related degree programs.

Difference between Level of Consideration in Deciding to Enroll in the University of the Respondents

Table 6 shows the test of difference (independent samples) between the level of consideration in deciding to enroll in the

Table 6.

Test of difference between level of consideration in deciding to enroll in the university of UE and NU respondents.

Institutional Image Indicators	Difference between Means (D) (UE – NU)	t-value[a]	Sig.
Tuition Fee	0.27306	3.269	0.001
Tuition Fee Payment Scheme	0.39774	4.288	0.000
Admission Process	0.33680	3.430	0.001
Schedule of Classes	0.38712	4.029	0.000
Course Offerings	0.27020	2.781	0.006
Facilities	0.42006	4.847	0.000
Faculty Profile	0.24907	2.722	0.007
Scholarships and Grants	0.13051	1.462	0.144
Kinship Patronage	0.20930	1.852	0.065
Security in Campus	0.45384	4.214	0.000
Accessibility	0.30542	2.582	0.011

Note: [a]dgrees of freedom (df) = 388.

University of UE and NU respondents with regard to the institutional image indicators. Responses in terms of Scholarship and Grants (D = 0.13051, $t(388) = 1.462$, p-value > 0.05) and Kinship Patronage (D = 0.20930, $t(388) = 1.852$, p-value > 0.05) were not found to have significant difference.

On the other hand, it was found out that there were significant differences on the responses on the following nine institutional image indicators.

- In terms of **Tuition Fee**, UE respondents had higher consideration (D = 0.27306) in deciding to enroll in their University than NU respondents. The t-value of 3.269 ($df = 388$) with an associated p-value of 0.001, which is less than 0.05 level of significance, shows that the difference is unlikely to have arisen from sampling error. Similarly, UE respondents also had higher consideration in deciding to enroll in their school than NU respondents in terms of **Tuition Fee Payment Scheme** (D = 0.39774, $t(388) = 4.288$, p-value < 0.05). This is attributed to the scholarships and grants received by NU respondents. Informal interviews with two NU teachers confirmed that most of computing freshmen were scholars. NU respondents tend to have lower considerations (and conversely, UE had higher consideration) on these institutional image indicators since their financial assistance from scholarships and grants would cover the cost of their education. Therefore, they were less concerned about paying their tuition fees.
- The same reason also can also be attributed to the higher consideration of UE respondents on **Course Offerings** (D = 0.27020, $t(388) = 2.781$, p-value < 0.05), **Facilities** (D = 0.42006, $t(388) = 4.847$, p-value < 0.05) and **Faculty Profile** (D = 0.24907, $t(388) = 2.722$, p-value < 0.05). Since most UE respondents were "paying clientele", they wanted to get the best out of their tuition fees. They expected more credible course offerings, up-to-date facilities, and qualified faculty.

- The differences between the responses of UE and NU respondents in terms of *Admission Process* (D = 0.33680, $t(388) = 3.430$, p-value < 0.05) and *Schedule of Classes* (D = 0.38712, $t(388) = 4.029$, p-value < 0.05) were found to be significant. The positive difference (D) indicates that UE respondents had higher consideration in deciding to enroll in their University than NU respondents. It can be noted that *Admission Process* refers to the convenience and fast procedures in enrolling in the University while *Schedule of Classes* refers to the flexibility and convenience of class schedules of the University. The higher consideration of UE respondents on these indicators can be attributed to the home location of the UE freshmen. Sixty percent of UE respondents were from other parts of Metro Manila (see **Table 4**). An enrollment procedure that could not be finished in one day meant more frequent visits to the University and higher cost of transportation. Schedule of classes not suited to the students resulted in poor attendance in class or in dropping the subject. Therefore, fast and convenient admission procedures, as well as flexible and expedient class schedules would be very beneficial to commuting enrollees.
- The home location of the respondents also explains the significant difference in their level of consideration in deciding to enroll in the University in terms of *Accessibility*. UE respondents had higher consideration than NU respondents in this indicator (D = 0.30542, $t(388) = 2.582$, p-value < 0.05) since UE respondents live farther than NU respondents. Thus, a school which can be easily accessed (i.e., convenience of getting to the school, short travel time, diverse modes of transportation in going to school, and roads leading to the school are in good condition) would be a greater consideration for those who live farther.
- It was found out that UE respondents had higher consideration in *Security in Campus* (D = 0.45384) than NU respondents. The result is unlikely to have arisen from sampling error ($t(388) = 4.214$, p-value < 0.05). This can be attributed to the location of the school. UE is situated in a more commercialized area (see **Figure 2**). The vibrant economic activities in the area fuel the fast circulation of money which, in turn, attracts people from all walks of life including lawless individuals, or groups. Unfortunately, as a result, students could be victims of these lawless individuals or groups. The home location of the respondents could partly explain the difference.

School administrators (particularly, UE administrators) could consider these indicators to direct marketing strategies for possible enrollees. School administrators could stress that students could receive the best value of their money and students could settle their tuition fees in an easy-payment-plan. As such, policies could be formulated on how to meet this easy-payment-plan and constantly look on ways on how to improve this payment scheme. They could also stress that students' fees were utilized to serve them better in terms of pursuing higher accreditation status, providing state-of-the-art facilities, and hiring qualified faculty members.

Careful consideration should also be given in terms of admission process and schedule of classes. A long and unmoving line of enrollees during admission can be an indication that there is something wrong in the admission processes. This may leave a negative impression on possible enrollees that could have visited the school for admission inquiries. Home location of the students and the ease of access in going to school may

warrant a flexible schedule of classes. The University can offer varied class sessions (e.g., morning, afternoon, or evening sessions) that can cater to commuters and non-commuters alike. Lastly, security within and outside the University justifies the need for the visibility of security guards, local law enforcers, and policemen. This institutional image serves not only the students but also their parents.

As a summary, the discussions above show that the findings can be translated into practice. These have implications on the marketing and policy formulation of the Universities in order to attract possible enrollees. The findings also suggest that school choice varies even from the same type of respondents (i.e., students). In other words, other students may have had higher considerations in deciding to enroll in the University because they are more meticulous in choosing a school.

Conclusion, Recommendations, Limitations, and Future Research

It was found out that UE respondents had higher considerations than NU respondents in deciding to enroll in the University based on nine out of eleven institutional image indicators. They had higher considerations in terms of the Tuition Fee, Tuition Fee Payment Scheme, Admission Process, Schedule of Classes, Course Offerings, Facilities, Faculty Profile, Security in Campus, and Accessibility. Thus, the null hypothesis stating that there is no significant difference in the level of consideration of the respondents in deciding to enroll in the two Universities in terms of the institutional image indicators is partially rejected. In other words, school choice differs even among the same type of respondents.

The findings of the study could serve as a basis in directing the marketing and operational planning of the schools. The two universities could focus on their strongest institutional image indicators while improving on their weakest. Students and parents would be informed on what the schools could offer. This could lead to a wholesome competition between schools, thereby directly giving benefits to the consumers (e.g., students). The indicators considered could also serve as basis for the formulation of survey forms in determining freshmen satisfaction on the services provided by the Universities. This could pinpoint which institutional indicators were met and which were not.

Since the study is relatively a pioneering study in school choice in the Philippines, it recognizes its limitations. The findings of the study are limited only to two Universities with IT-related programs. The comparison of school choice among three or more Universities offering IT-related programs can be initiated. This would greatly contribute to a better understanding of the school choice of possible IT freshmen. Second, the questionnaire was based on the last stage of school choice. Institutional image indicators not considered in the last stage might be considered in the previous stages. Furthermore, future studies could determine which institutional image indicators could be considered in each stage.

Third, in this study, the demographic profile of the respondents was used only for the purpose of describing the respondents. It did not look into the possibility that the profile of the respondents could also affect school choice (Jimenez & Salas-Velasco, 2000). Consequently, school choice based on the particular profile of the respondents (e.g., income, gender, family size, etc.) can also be investigated. These studies can further

illuminate the differences found in this study.

Fourth, it is interesting to note that even though UE provides various scholarship programs, freshmen from NU did not opt to enroll at UE. The study could not answer this gap due to the limitations of the design of the study and of the questionnaire. The questionnaire only focused on what the respondents considered in choosing their school without referencing to other schools. Thus, it is unclear whether they had considered enrolling in UE or not, or they never had the chance to know that UE offered such scholarships. It is recommended that the quantitative approach employed in this study be augmented by a qualitative approach. In this manner, the research gap mentioned above could be filled or addressed accordingly.

Lastly, a study on school choice based on the reputation (e.g., Daily et al., 2010; Padlee et al., 2010; Pauline, 2010) of the school could be explored.

Acknowledgements

REFERENCES

Alese, B. K., & Owoyemi, S. O. (2004). Factor analytic approach to internet usage in South—Western Nigeria. *Journal of Information Technology Impact, 4,* 171-188.

Andre-Bechley, L. (2007). Finding space and managing distance: Public school choice in an urban California district. *Urban Studies, 44,* 1355-1376. doi:10.1080/00420980701302304

Banya, K., & Elu, J. (2001). The World Bank and financing higher education in Sub-Saharan Africa. *Higher Education, 42,* 1-34. doi:10.1023/A:1017584501585

Bashir, Z., Mojoka, M. I., & Mahmood, T. (2011). Comparison of quality indicators in public and private secondary schools of Hazara Region, Pakistan. *Interdisciplinary Journal of Contemporary Research in Business, 2,* 157-172.

Belanger, C., Mount, J., & Wilson, M. (2002). Institutional image and retention. *Tertiary Education and Management, 8,* 217-230. doi:10.1080/13583883.2002.9967080

Brewer, P., & Carnes, L. (2008). The perceived impact of physical facilities on the student learning environment. *Business Education Digest, 17,* 3-21.

Bukowska, G., & Siwinska-Gorzelak, J. (2011). School competition and the quality of education: Introducing market incentives into public services: The case of Poland. *Economics of Transition, 19,* 151-177. doi:10.1111/j.1468-0351.2010.00397.x.

Chapman, R. G. (1986). Toward a theory of college selection: A model of college search and choice behavior. *Advances in Consumer Research, 13,* 246-250.

Dahari, Z. B., & Ya, M. S. (2011). Factors that influence parents' choice of pre-schools education in Malaysia: An exploratory study. *International Journal of Business and Social Science, 2,* 115-128.

Daily, M. C., Farewell, S., & Kumar, G. (2010). Factors influencing the university selection of international students. *Academy of Educational Leadership Journal, 14,* 59-75.

Dancey, C. P., & Reidy, J. (2002). *Statistics without Maths for Psychology using SPSS for Windows.* Essex, England: Pearson Education Limited.

De Raadt, M. (2004). Searching for tomorrow's programmers. *Issues in Informing Science and Information Technology, 1,* 597-603. http://informingscience.org/proceedings/InSITE2004/086raadt.pdf

Drewes, T., & Michael, C. (2006). How do students choose a university? An analysis of applications to universities in Ontario, Canada. *Re-search in Higher Education, 47,* 781-800. doi: 10.1007/s11162-006-9015-6

Duarte, P. O., Alves, H. B., & Raposo, M. B. (2010). Understanding university image: A structural equation model approach. *International Review on Public and Nonprofit Marketing, 7,* 21-36. doi:10.1007/s12208-009-0042-9

Fahim, Y., & Sami, N. (2011). Adequacy, efficiency and equity of higher education financing: The case of Egypt. *Prospects, 41,* 47-67. doi:10.1007/s11125-011-9182-x

Gabriel, S., Cosmin, M., & Marius, P. (2008). What is wrong with our schools? A guide to education reform. *Annals of the University of Oradea, Economic Science Series, 2,* 449-454. http://steconomice.uoradea.ro/anale/volume/2008/v2-economy-and-business-administration/078.pdf

George, D., & Mallery, P. (2009). *SPSS for Windows step by step: A simple guide and reference 16.0 update* (9th ed.). Boston: Pearson Education.

Hagel, P., & Shaw, R. (2008). The influence of delivery mode on consumer choice of university. *European Advances in Consumer Research, 8,* 531-536.

Harrison, M. (2005a). Policy forum: Government policy and performance of schools competition, regulation and private schools. *The Australian Economic Review, 38,* 66-74. doi:10.1111/j.1467-8462.2005.00353.x

Harrison, M. (2005b). Public problems, private solutions: School choice and its consequences. *Cato Journal, 25,* 197-215.

Ho, H.-f., & Wang, F.-Y. (2011). Prestige, parallel or predatory—Pricing strategies amongst Taiwanese universities. *International Journal of Marketing Studies, 3,* 67-77. doi:10.5539/ijms.v3n3p67.

Hu, S., & Hossler, D. (2000). Willingness to pay and preference for private institutions. *Research in Higher Education, 41,* 685-701. doi:10.1023/A:1007016620622

Jackson, G. A. (1980). How students pay for college: Temporal and individual variation. *Higher Education, 9,* 619-632. doi:10.1007/BF02259956

Jimenez, J. D. D. & Salas-Velasco, M. (2000). Modeling educational choices: A binomial logit model applied to the demand for higher education. *Higher Education, 40,* 293-311. doi:10.1023/A:1004098300436

Kabbani, N., & Salloum, S. (2011). Implications of financing higher education for access and equity: The case of Syria. *Prospects, 41,* 97-113. doi:10.1007/s11125-011-9178-6.

Kanaan, J. H., Al-Salamat, M. N., & Hanania, M. D. (2011). Political economy of cost-sharing in higher education: The case of Jordan. *Prospects, 41,* 23-45. doi:10.1007/s11125-011-9179-5.

Kerstetter, K. M. (2011). Investigating high school band recruitment procedures using educational marketing principles. *Journal of Band Research, 46,* 1-17.

Khan, F., & Iqbal, M. Z. (2011). Impediments in enhancing the quality of education in public sector higher educational organizations. *Interdisciplinary Journal of Contemporary Research in Business, 2,* 453-465.

Leiviskä, K., & Siponen, M. (2010). Attitudes of sixth form female students toward the IT field. *SIGCAS Computers and Society, 40,* 34-49. doi: 10.1007/s11125-011-9183-9.

Liefner, I. (2003). Funding, resource allocation, and performance in higher education systems. *Higher Education, 46,* 469-489. doi:10.1023/A:1027381906977

Lenox, T. L., Woratschek, C. R., & Davis, G. A. (2008). Exploring declining CS/IS/IT enrollments. *Information Systems Education Journal, 6,* 1-11.

Maringe, F. (2006). University and course choice: Implications for positioning, recruitment and marketing. *International Journal of Educational Management, 20,* 466-479. doi:10.1108/09513540610683711.

McCarthy, E. E., Sen, A. K., & Garrity, B. F. (2012). Cross-border education: Factors influencing Canadian students' choice of institutions of higher education in the United States. *Global Conference on Business and Finance Proceedings, 7,* 446-457.

Nadiri, H., Kandampully, J., & Hussain, K. (2009). Students' percep-

tions of service quality in higher education. *Total Quality Management, 20,* 523-535. doi:10.1080/14783360902863713

Nahas, C. (2011). Financing and political economy of higher education: The case of Lebans in students' retention decisions. *Prospects, 41,* 69-95.

Nguyen, N., & LeBlanc, G. (2001). Image and reputation of higher education institutions in students' retention decisions. *The International Journal of Educational Management, 15,* 303-311.

Novak, J. (2006). Choice matters: What needs to change to make schools competitive? *Policy, 22,* 23-28.

Padlee, S. F., Kamaruddin, A., & Baharun, R. (2010). International students' choice behavior for higher education at Malaysian private universities. *International Journal of Marketing Studies, 2,* 202-211.

Pallant, J. (2001). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows version 10.* Buckingham: Open University Press.

Parker, R. S., Cook, S., & Pettijohn, C. E. (2007). School choice attributes: Positioning a private school. *Services Marketing Quarterly, 28,* 21-33. doi:10.1300/J396v28n04_02

Pauline, J. (2010). Factors influencing college selection by NCAA Division I, II, and III Lacrosse players. *Journal of Research in Health, Physical Education, Recreation, Sport & Dance, 5,* 62-69.

Pereda, M., Airey, D., & Bennett, M. (2007). Service quality in higher education: The experience of overseas students. *Journal of Hospitality, Leisure, Sport & Tourism Education, 6,* 55-67. doi:10.3794/johlste.62.160.

Reddy, M. (2011). Determinants of student choice of business schools in India: A factor analytic investigation. *International Journal of Management, 28,* 751-762.

Rizvi, S. A. A., & Khan, M. N. (2010). The uniqueness of educational marketing. *Journal of Economics and Engineering, 4,* 39-43.

Robert, P. (2010). School origin, school choice, and student performance. *Educational Research and Evaluation, 16,* 107-129. doi:10.1080/13803611.2010.484972.

Salahuddin, M., Islam, R., Akbar, D., & Raihan, K. M. (2008). How can we increase the quality of private schools in Bangladesh from the perspectives of students and managers? *International Journal of Management Perspectives, 2,* 1-17.

Shah, M., & Nair, C. S. (2010). Enrolling in higher education: The Perceptions of stakeholders. *Journal of Institutional Research, 15,* 9-15.

Sidin, S. Md., Hussin, S. R., & Soon, T. H. (2003). An exploratory study of factors influencing the college choice decision of undergraduate students in Malaysia. *Asia Pacific Management Review, 8,* 259-280.

Szekeres, J. (2010). Sustaining student numbers in the competitive marketplace. *Journal of Higher Educational Policy and Management, 32,* 429-439. doi:10.1080/1360080X.2010.511116.

Tsagala, E., & Kordaki, M. (2007). Critical factors influencing secondary school pupil's decisions to study computing in tertiary education: Gender differences. *Education and Information Technologies, 12,* 281-295. doi:10.1007/s10639-006-9026-0.

Ud Din, M. N., Murtaza, A., & Khan, F. (2011). Comparative study of quality of education in public and private secondary schools in NWFP. *Interdisciplinary Journal of Contemporary Research in Business, 2,* 416-429.

Ur Rehman, N., Khan, J., Tariq, M., & Tasleem, S. (2010). Determinants of parents' choice in selection of private schools for their children in District Peshawar of Khyber Pakhunkhwa Province. *European Journal of Scientific Research, 44,* 177-187.

Vaduva, S. A., Fotea, I. S., Corcea, M., & Lazar, M. (2011). Beyond satisfaction: Engaging students and faculty in a Romanian business school. *The Marketing Management Journal, 21,* 207-213.