Demographic and Psychographic Profiles of the Potential First Class Undergraduates at The Malaysian Public University

Lim Khong Chiu[a][*]
[a]School of Tourism, Hospitality and Environmental Management,
Universiti Utara Malaysia, Malaysia, 06010 Sintok,
Kedah Darul Aman, Malaysia
lkc@uum.edu.my

Noor Azniza Ishak[b]
[b] School of Social Development
Universiti Utara Malaysia, Malaysia, 06010 Sintok,
Kedah Darul Aman, Malaysia
noorazniza@uum.edu.my

Nor Idayu Mahat[c]
[c]School of Quantitative Science
Universiti Utara Malaysia, Malaysia, 06010 Sintok,
Kedah Darul Aman, Malaysia
nooridayu@uum.edu.my

Abstract

Even though the discipline of psychology and education has gained in popularity during the last decade, few studies have been conducted to determine the characteristics of the potential first class undergraduate students. This study was designed to examine the demographic and psychographic characteristics of the potential first class undergraduates in the Malaysian public universities. The selected respondents comprised of 424 undergraduates who obtained at least 3.67 of cumulative grade point average (CGPA) in their academic achievement in the entire duration of their study. This study uses a self-administered adapted questionnaire to collect data. The questionnaire consists of six dimensions on psychographic attributes, namely task orientation, competitiveness, skill mastery, general self-efficacy, time management, leisure attitude, and socio-demographic characteristics as well. The results of the study indicate that the potential first class students have the highest level on task orientation; whilst time management scores the lowest. In addition, the results reveal that more than 99% of the students have either moderate or high level of psychographic attributes. The MANOVA results indicate that there were significant differences between male and female students in their task orientation and leisure attitude.
Likewise, significant differences between ethnic groups were found for task orientation, competitiveness, and general self-efficacy. Thus, the findings of this study are able to assist the university management in providing coaching and mentoring by ensuring students suited to their needs and desires for their study.

Keywords: demographic, psychographic, first class undergraduate, public university

1. Introduction

The success of the nation depends on the young generation who are not only equipped with some degree of talent and intelligence but also need to acquire a positive attitude and stable psychographic attributes. This is in line with the aspiration of Malaysia; to produce 60,000 doctorates by 2015 under the government effort known as Mybrain 15. Particularly, Mybrain

15 is one of the critical agendas of the National Higher Education Strategic Plan (NHESP). NHESP main aim is to develop human resources that are highly knowledgeable and skilful in their respective fields (MoHE, 2010)[14]. Therefore, in order to achieve the development aims of the country, a sustainable human capital development programme is vital to be implemented. In relation to that, higher educational institutions are established to play a prominent role for the development of training programmes; and to provide a generation with knowledge and new skills that make them more attractive to the employment market. Furthermore, students are valuable assets of the nation, they are the future leaders, and perhaps, they will determine the direction of the nation in the future. However, a successful student at university is evidently influenced by various factors consisting of academic and non-academic variables.

Previous literature had shown that there was a consensus between educationist and psychologist regarding psychographic attributes as one of the important factors in determining overall student's achievement and their learning process (Komarraju, Karau & Schmeck, 2009; Megan, 2009; Mohammed Yusof, 2011; Plog, 1994; Pascarella & Terenzini, 1991)[11][13][15][18][16]. Although significant research in this area has centered around specific variables that can be tied into academic success such as gender, age, achievement, academic ability, and financial status (Fuller, Manski, & Wise, 1982; Hossler, Braxton, & Coopersmith, 1989; Paulsen, 1990)[5][10][17], a scarcity of researches exist relative to psychographic variables in academic environment. Most of researches conducted pertaining to psychographic variables was marketing research (Heath, 1995)[7]. According to Gunter and Furnham (1992)[8] in their book entitle Consumer Profiles: An Introduction to Psychographics, psychographics seeks to describe the human characteristics of consumers that may have bearing on their response to products, packaging, advertising and public relations efforts.

An analysis of the literature suggests that, among psychographic variables such as achievement motivation, self-efficacy, time management, and leisure attitude are important variables in determining students' overall achievement (Bandura, 1997; Bandura & Locke, 2003; Helmreich & Spence, 1978; Macan, 1994; Ragheb & Beard, 1982; Schwarzer, 1992)[2][3][9][12][19][20]. Psychographics are characteristics of individuals that describe them in terms of their psychological and behaviour makeup – how people occupy themselves (behaviour) and what psychological factors underlie that activity pattern. They are a manifestation of an individual's underlying motivations (Sheth & Mittal, 2004) [21]. Woodside and Pitts (1976)[23] and Abbey (1979)[1] empirically tested the effectiveness of psychographics and found that lifestyle variables were important in classifying respondents and these variables communicated something that was real, meaningful, and relevant, beyond what demographic analysis could do. Plog (1994)[18] argued that segmentation based on psychographic characteristics could produce clearly defined groups of individual with similar lifestyle and interest.

Wells (1975)[22] pointed out that psychographic add new dimensions that go beyond the scope of demographics. However, demographic and psychographic profiles highly complementary approaches that work best when used together. Therefore, by combining the knowledge gained from both demographic and psychographic studies, Higher Education Providers will be provided with the powerful information about their target students. In regard to psychographic characteristics, some of the identified variables are considered as the major factors that may be pertinent to the development of psychographic model, including models and concepts from mainstream psychology, and the associated sub-disciplines of

health, leisure, and physical activity. Consistent with these issues, this study aims to provide additional insights into the psychographics variables of university undergraduates, focusing on two specific objectives: (a) to develop demographic and psychographic profiles, and (b) to determine differences of the effect of gender, age and ethnic groups on the psychographic attributes among potential first class undergraduates in the Malaysian public universities.

1.1 Research Questions
The following research questions were formulated in this study:
a)   What are the characteristics of potential first class undergraduates based on their demographic and psychographic profiles?
b)   To what extent the level of each psychographic profile (achievement motivation, self-efficacy, time management and leisure attitude) differ among the potential first class students in terms demographic variables in terms of gender, age and ethnicity?

2. Method

2.1 Sample
The population of this study was the listed potential first class undergraduate students in Universiti Utara Malaysia (UUM), located in northern region of Malaysia. The potential first class undergraduates are believed to have unique characteristics that are different from other categories of students. This group consisted of the students who obtained Cumulative Grade Point Average (CGPA) between 3.67 and 4.0 within the duration of this study was conducted. Records from the Academic Affairs Department listed 3,939 potential first class students.

2.2 Instrument and Procedure
Basically, psychographics have three components namely attitude, interest, and opinion (AIO). These components are also referred to as psychographic profiles with the application of AIO to studying lifestyle based on quantitative measures (Sheth & Mittal, 2004; Gunter & Furnham, 1982)[21][8]. In the context of this study, six dimensions of psychographic characteristics are selected to measure and evaluate potential first class students in UUM. The six dimensions are task orientation, competitiveness, skills mastery, self-efficacy, time management, and leisure attitude. The psychographics scales were developed by adapting some standard resources to measure achievement motivation that encompass of task orientation, competitiveness, and skills mastery (Helmreich & Spence, 1983)[9]; time management (Macan, 1994)[12]; self-efficacy (Schwarzer, 1992)[20]; and leisure attitude (Raghed & Beard, 1982)[19]. The psychographic measurement scale comprised of 41 items using five-point Likert-type scale with the responses ranging from strongly disagree (1) to strongly agree (5). The scale has been found to be both reliable and valid by the respective researchers, and has been used with success in other studies. Moreover, in this study the psychographic measurement scales was found to be reliable with Cronbach's alpha for the six subscales range from .54 to .92 and the combination of these scales is .895. Furthermore, the independent variables were demographic variables of gender, age, ethnicity, and marital status. Single item measures were used to capture the information pertaining to each of these variables.

Permission to collect data with the potential first class undergraduate students was received from the Dean of the respective schools. The questionnaires were distributed by two trained research assistants to all students during the ceremony of the Dean's List Award. Respondents were informed concerning the purpose of the study, general instructions were provided, help was offered when needed, and responses were anonymous. However, only 424 questionnaires were returned, and make up the response rate of 10.8% from the entire target population.

2.3 Data Analysis

Several statistical techniques were applied in this study such as descriptive analysis (averages and standard deviations), and Multiple Analysis of Variance (MANOVA) was used to determine whether the means of dependent variables varied due to demographic differences. In the MANOVA model, the demographic variables were entered as independent variables, and psychographic variables were entered as the dependent variables.

3. Results and Discussion

3.1 Profile of Sample

The sample of the potential first class undergraduates as detailed in Table 1 consisted of 69 males (16.3%) and 355 females (83.7%). Most of them ranged between the ages of 21 to 23 years old (70.54%), and this is an actual representation of the average age of undergraduate students in the UUM. In addition, identification of students based on their ethnicity indicated that the majority of students were Malay 210 (52.0%), 161 (39.9%) were Chinese, 25 (6.2%) were Indian, and others 8 (2.0%), and majority of respondents were not married (98.3%).

Table 1: Profile of sample

Demographic	Class	Frequency	Per cent (%)
Gender (n = 424)	Male	69	16.27
	Female	355	83.73
Age (year) (n = 404)	18 – 20	56	13.86
	21 – 23	285	70.54
	24 – 26	46	11.39
	More than 27	17	4.21
Ethnic (n = 404)	Malay	210	51..98
	Chinese	161	39.85
	Indian	25	6.19
	Others	8	1.98
Marital status (n = 404)	Single	397	98.27
	Married	7	1.73

3.2 The Level of Psychographic Characteristics among the First Class Students

Descriptive statistics were used to measure psychographic characteristics among the potential first class students as shown in Table 2. A psychographic characteristic entails six dimensions namely, (1) task/work orientation, (2) competitiveness, (3) skill mastery (4) self-efficacy, (5) time management, (6) leisure attitude.

The results as tabulated in Table 2 showed that the potential first class students had the highest level on task dimension with a mean score of 4.162 and standard deviation of 0.556; whilst time management scored the lowest with a mean of 3.105 and standard deviation of 0.633.

Generally, the findings of this study imply that the potential first class students portray their positive attitude towards task or works that they have to encounter and believe about the importance of leisure activities that leads to the quality of life. However, based on their

perception, they seem to be relatively poor in terms of managing their time as compared to other psychographic characteristics.

Table 2: Descriptive statistics of psychographic characteristics

Psychographic characteristics	Mean	SD	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
Task/work	4.162	0.556	-0.881	0.121	2.083	0.242
Competitiveness	3.652	0.614	-0.087	0.121	-0.083	0.242
Self-Efficacy	3.692	0.617	0.346	0.121	1.383	0.242
Time Management	3.105	0.633	0.391	0.121	0.402	0.242
Leisure Attitude	4.156	0.658	-0.797	0.121	0.953	0.242
Skill Mastery	3.322	0.450	0.234	0.121	0.289	0.242

In addition, the overall psychographic level was computed from each dimension to identify the categorisation of students based on the following grouped of mean scores:
1.   Low, if the mean score is less than 2.44,
2.   Moderate, if between 2.45 and 3.44, and
3.   High, if the score is more than 3.45.

A summary of the level of overall psychographic characteristics among the potential first class students is displayed in Table 3. The results indicate that almost all of the students surveyed had either moderate or high in their overall psychographic attributes. This implies that such students who are excelled in their academic performance were also possess some good psychological traits and behaviours in terms of tasks or works performance, competitiveness, self-efficacy, time management, leisure attitude, and mastery skills.

Table 3: Levels of psychographic attributes among the Students

Psychographic level	Frequency	Percent
Low	3	0.7
Moderate	100	24.8
High	301	74.5
Total	404	100.0

3.3 Differences of the Effect of Gender, Age, and Ethnicity on the Psychographic Characteristics

The Pillai's Trace test was used for the interpretation of the MANOVA results (Hair, Anderson, Tatham & Black, 1998)[6]. A first set of results analyzed yielded significant main effects for students' gender and ethnicity with dependent variables (psychographic characteristics), and the results found to be no significant main effects for students' age with dependent variables (psychographic characteristics). Table 4 showed the results of the investigation comparing the dependent variables of task/work orientations, competitiveness, mastery skills, self-efficacy, time management, and leisure attitude on the influence of the independent variable of gender, age and ethnicity.

Table 4: Result of MANOVA for gender, age, and ethnic effect

Test	Variable	value	F	sig	partial Eta square
Pillai's Trace	Gender	.044	2.952	.008	.044
	Age	.043	.938	.532	.014
	Ethnic	.270	6.444	.000	.090

$P < .05$

3.4 Differences of the Effect of Gender on the Psychographic Characteristics

MANOVA test was conducted to analyze differences in the variables measured among two gender groups. As shown in Table 5 the results reveal that there was significant differences between gender groups for the task/work orientations subscale (F=5.907, p=.016). Likewise, for the leisure attitude subscale, the result also indicates significant differences between male and female students (F=5.049; p=.025). On the other hand, this study shows non-significant differences between male and female students on competitiveness, self-efficacy, mastery skills and time management dimensions. Thus, the findings indicated that female students are desire to work hard and satisfied with her performance as compared to male students. Conversely, male students are found to be more liking towards his leisure activities and experiences, particularly their involvement and participation in sports and recreation.

Table 5 Results of MAONVA for gender factor

Source	Variable	Mean Square	F	sig
Gender	Task Orientation	1.804	5.907	.016
	Competitiveness	.346	.916	.339
	Mastery Skills	.486	2.416	.121
	Self-Efficacy	.423	1.112	.292
	Time Management	.111	.278	.599
	Leisure Attitude	2.167	5.049	.025

$P < .05$

3.5 Differences of the Effect of Ethnic on the Psychographic Characteristics

MANOVA test was conducted to analyze differences in the variables measured among four ethnic groups. As shown in Table 6, the results reveal that there were significant differences between ethnic groups on task/work subscale (F=23.108; P=.000). The results of Pos-hoc Tukey test showed that group Malay students reported higher mean scores than other three ethnic groups on task orientation, competitiveness, self-efficacy, and leisure attitude subscale. Thus, the findings of this study indicated that Malay students portrayed the desire to work hard and to perform well, enjoyment of interpersonal competition situations, high general self-efficacy and positive leisure attitude as compared to Chinese, Indian, and other ethnic groups.

Table 6 Results of MAONVA for ethnic factor

Source	Variable	Mean Square	F	sig
Ethnic	Task Orientation	6.132	23.10	.000
	Competitiveness	5.976	17.82	.000
	Mastery Skill	.355	1.768	.153
	Self-Efficacy	6.506	19.43	.000
	Time Management	.374	.933	.425
	Leisure Attitude	9.922	27.381	.000

$P < .05$

4. Conclusion

The findings of this study provide some evidence pertaining to the personality and motivation of potential first class students in UUM. The results indicated that psychographic and demographic variables are essential factors identifying and reflecting students' academic achievement at the university. In this study, six psychographic variables namely, task orientation, competitiveness, mastery skill, self-efficacy, time management, and leisure behavior were identified to assess the personality and achievement motivation of the students, as well as demographic variables such as gender, age, and ethnicity. The findings regarding demographic factors variables imply that potential first class students can be segmented according to their perception of the psychographic characteristics. In addition, the knowledge from this study can provide valuable input to the university management in facilitating coaching and mentoring to ensure students are suited to their needs and desires for their study. Furthermore, this study also can provide meaningful information to Higher Education Providers to plan the design of training that the students will like. In addition, it is also easier to target a specific type of student as well as enhance a greater degree of student satisfaction.

However, some limitations of this study need to be considered. The current study occurred in public university setting was limited to students from one university and focused only on potential first class students. In addition, more than 80% of the respondents of this study were female. Therefore, the results of this study will not be able to generalize across all university students in Malaysia. Another limitation of this study is the fact that quantitative data is taken through self-report measures; therefore, there is ample chance that participants chose to answers which were not their true experience (Creswell, 1994)[4].

Several directions for future research can be offered to advance both theory and practice in this area. The present study should be replicated utilizing students from other higher institutions (public and private) as well as population samples. In spite of that, future research should also explore additional psychological variables which were determined by the theory and previous empirical research. It is also recommended to examine the emotional intelligence relate to gender, age groups, different ethnic groups, and other psychological variables. In addition, a suggested modification measurement scales could be used to obtain a qualitative data which may explain explicitly on individuals' leisure attitudes, motivation, self-efficacy and others attributes.

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