



# User Satisfaction Survey

**2004 Report**

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## Executive Summary

This survey is the first attempt to study the user satisfaction at the university using a longitudinal research approach in terms of survey design and analysis strategy. A ten-point scale for measuring the user satisfaction with services was used, where 1 means very dissatisfied and 10 means very satisfied. Descriptive statistics, correlation and multiple regression analyses were applied in order to find out users' satisfaction status, critical areas of dissatisfaction which are worthy of concern and improvement, relationships between users' demographic factors and satisfaction, and important factors that contribute to the overall satisfaction.

### Data

- Data for analyses was collected from 511 staff users using self-administered questionnaires that were distributed to all staff at a return rate of 73%, and from 508 student users using a random sampled telephone interviews from 5889 registered students with a CATI system at a response rate of 91%.

### User Satisfaction

- Generally speaking, users are satisfied with the services provided by all units as a whole with a mean score of 7.2 (staff sample) and of 6.5 (student sample). More than three-fourth of the users claimed that the services meet their expectations. While more than half of the staff claimed they sometimes or always recommend the services to others, only one-fourth of students claimed to do so. The results show that students have higher expectations and are less satisfied with the services than the staff.
- Five out of nine administrative units received satisfactory score above 7.0 and the other four received scores between 6.0 to 6.9 from the staff users, indicating that the services are OK provided by more than half of the serving attributes and there might be some problems with the services provided by the other four units. Overall speaking, the staff users gave a considerable satisfactory rating to the performance of the specific units.
- The student users only rated one of the seven attributes above the score 7.0 and one below the score 6.0, indicating that there might be potential problems with the services. In general, the student users underrated the service performance than the staff did.

### Critical Areas of Dissatisfaction

- Taking the rating of each service item and the opinions found from the open-ended questions in to consideration, the staff users are more likely to be dissatisfied with and to be concerned about the facilities of Sport Complex, office space, range of books in the library, recreational areas and car-part lots. They urged quick improvement from the areas like cleaning service, inter-unit coordination and communication, computing support service, the serving attitudes of the frontline staff, procurement, photocopying service, on-campus clinic, class-room booking, staff activities and so forth.

- The student users are more likely to be dissatisfied with and to be concerned about the performance of computing equipment in computer room, Sports Complex facilities, intranet accessibility off-campus, facilities in canteen, quantity of computing equipment in computer rooms, recreational areas, procedure of locker renting, course enrollment, quietness in computer rooms, car-park lots, school clinic service, sufficiency of photocopying services, and sport activities. They claimed immediate improvement from the areas like computer rooms, canteen, photocopying, renting Sports Complex facilities, the serving attitudes of the staff, cleaning service, course enrollment procedure, information about the university and so on.

### **Relationships between Users' Demographic Factors and Satisfaction**

- The year of service of the staff is negatively correlated with the overall satisfaction with all services and the performance rating of the Personnel Office though the strength of association is weak. Similarly, there is a negative correlation between the year of study of the students and their overall satisfaction with all services. It seems that the more years they work for or study in the university, the less they are satisfied with the services. A possible explanation is that those seniors set higher expectations than those juniors do.
- Students' GPA is positively correlated with the satisfaction with all services, suggesting that those with higher GPAs be more likely to acknowledge administration performance; in turn, that better service performance would benefit students' study performance.
- Students' on-campus time is positively correlated with their rating on the library performance, indicating that a better library service may help to keep students staying more in campus. Put it another way, the more time they devote in campus, the more satisfaction they have with the library.

### **Important Factors that Contribute to the Overall Satisfaction.**

- Frontline service was found to be the most important factor contributing to the overall satisfaction score across all regression models. AAB and PO are the two important factors for the staff models. Faculty Office and CSB are also significant contributors in the academic model. SO, GAB and Faculty Office contribute significantly to the student models. Taking the mean score below 7.0 as the critical point, there may be potential problems with AAB, SO, GAB, and Faculty Office as the users are slightly satisfied with the services provided by these attributes.

### **Limitations and Recommendations**

- There may be some problems with the questionnaires. For examples, not all service items were included. There may be interdependence among service attributes due to the constrain of the length of the questionnaire and thus ambiguity of user satisfaction and function of each service unit may exist. Reconceptualization is needed for future surveys.
- Explanations are not exhaustive and cautious interpretation should be used. Interested units can perform more analyses with the dataset provided.
- This survey may serve the benchmark for future comparison and trend analysis.

## Introduction

The University of Macau conducted annual user satisfaction surveys in order to collect opinions from the entire University community and try to find out how far the staff members and students are satisfied with various facilities of the University and the services provided by various administrative units. Identifying the problems, weakness, strength and importance in these services will help the University management set a direction for future development and provide better services for the University community.

The 2004 survey adopts a longitudinal research approach--a new approach which is different from the previous ones in terms of survey methodology design, questionnaire design, analytical methods and ways of data presentation. The new approach helps collect more detailed feedback from the respondents that can be best analyzed using methods that will answer the following research questions.

- How much are the respondents satisfied with the overall performance by the administrative units?
- How do the respondent rate the performance by each of the administrative unit?
- What are the concerns by the respondents?
- What are the potentially critical areas of user dissatisfaction?
- What demographical factors correlate satisfaction?
- What are the important factors that contribute to overall satisfaction with all services?
- What are the users' suggestions to or opinions about the services?

To paint a picture describing the answers to the above-mentioned questions, five methods will be used.

1. Descriptive statistics of all the ratings of satisfaction with a color coding scheme;
2. Frequency counts presented with graphs and tables;
3. Cross-tabulations and Correlation analysis of key variables with graphs and tables;
4. Multiple regressions for building models with formulae;
5. Open-ended question analysis using a cluster technique.

The structure of this report is divided into eight parts: Executive Summary, Introduction, Literature Review on User Satisfaction Survey, Methodology, Survey Results, Conclusion and Recommendations, References, and Appendices.

## Literature Review on User Satisfaction Surveys

### What is satisfaction?

Satisfaction is a sense of contentment that arises from one's actual experience in relation to his/her expected experience. In a marketing sense, customer satisfaction is the result of delivering a product or service that meets customer requirements. It measures a customer's immediate and subjective experience with a specific service encounter—a uniquely personal and internalized experience that generates a spontaneous perception based, consciously or subconsciously, on expectations. Normally, if the service's performance falls short of expectations, the customer is dissatisfied. If the performance matches or exceeds expectations, the customer is satisfied or delighted.

Consumer (user in this case) satisfaction/dissatisfaction (CS/D) research started in 1960s and grew dramatically in the late 1970s. Its growth coincided with a growing interest on the part of government regulators and consumer advocates in making policy formulation more rational and systematic. It first started in the public service sector and then expanded to the private industries. Most of the CS/D studies were based on survey data. Initial survey research studies on CS/D were largely descriptive. As it develops, several quantitative survey analysis techniques are in use in marketing research. These include quadrant and gap analysis, factor analysis and multiple regression analysis, and scattergrams. Of these, only factor and regression analysis can provide quantitative benchmarks for continuous tracking.

### What can be measured?

Customer satisfaction research literature traditionally agrees that service quality is a measure of how well the service level delivered matches customer expectations. However, the fact that expectations are confirmed is not always sufficient for satisfaction. Normally, the qualities of contentment and delight are measured in degrees of satisfaction. Though it is difficult to measure objectively, these degrees of satisfaction can be estimated using a subjective assessment process in which the customer is simply asked how satisfied he or she is. This assessment is made possible through the use of a scale on which a customer records the degree of perceived satisfaction on a five-point or 10-point scale ranging from 1, meaning “very dissatisfied,” to 10, meaning “very satisfied.”

In addition to the satisfaction scale, an expectations scale is also used. This scale lets the customer indicate the degree to which his or her expectations were met, were not met, or were exceeded. For example, a seven-point expectations scale might use zero (0) as a midpoint, signifying that expectations were exactly met, and the numbers +1, +2, and +3 extending to the right of the 0 to mean that expectations were exceeded by these degrees, while the numbers -1, -2, and -3 extending to the left of the 0 denote the degree to which expectations were not met.

A typical customer satisfaction survey use a *benchmark questionnaire* which includes

the following dimensions.

- Overall satisfaction with the service or product;
- The satisfaction with each attribute;
- Expectations with the service or product;
- Recommendations of service or product to others;
- Open-ended exploration of the problems identified and service improvement that customers would like to see; and
- Respondent demographics.

## What can be analyzed?<sup>1</sup>

Several quantitative survey analysis techniques for the above-mentioned measurements are in use for user satisfaction surveys. These include quadrant and gap analysis, factor analysis, multiple regression analysis, and importance score approach. Of these, only factor and regression analyses can provide quantitative benchmarks for continuous tracking and the combination of them has been the most prevalent analytical technique applied in customer satisfaction research.

In a typical quantitative user satisfaction study, respondents evaluate overall satisfaction, then rate each individual service attribute that customers have defined. A key question for researchers is which attribute produces more impact than the other on the overall satisfaction (since not all attributes have equal impact).

How to find out such an attribute among so many? It is suggested that *derived importance measures* are usually preferred over *stated importance measures*.

### *Stated importance measures*

This approach asks respondents to explicitly state their perception of the importance of each attribute, usually using a 10-point scale. The results of this method can be straightforwardly interpreted; however, results can be few, if any, statistical differences among attributes, so the aim of the method — to prioritize attributes — is hindered. For example, if 500 users are asked to rate the service on 18 attributes, each on a scale of one to ten, the mean ratings for 8 to 10 of the attributes may range from 7.3 to 7.5, making the differences among their means statistically insignificant, using a *t-test of significance*. This makes quadrant analysis unreliable since differentiations among attributes by their mean importance or mean satisfaction ratings may not be statistically significant, at least without very large sample sizes. The statistical significance challenge is compounded when the results of a new tracking survey are compared with benchmark results. Additionally, the approach does not take into account, or provide a reliable means, for measuring the relative impact of service attributes on overall satisfaction.

### *Derived importance methods*

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<sup>1</sup> This part of the literature is extracted and edited based on “A Handbook for Measuring Customer Satisfaction and Service Quality” by Transportation Research Board, National Research Council. Washington, D.C.: National Academy Press, 1999.



This approach relies on the statistical association between individual ratings (predictors) and an overall satisfaction rating. The importance of an attribute is statistically determined from this relationship. These measures can be generally described as follows:

### **1. Bivariate (Pearson) Correlation:**

This measure separately tests the strength of the relationship of each independent variable (attribute) with the dependent variable (overall satisfaction). It has the advantages of familiarity and relative simplicity.

For example, *Quadrant analyses* are often used by generating bivariate correlations to provide an underlying understanding of ratings. Those "strengths" are shown in one quadrant of the graphs as those attributes that are above the median in customer importance and also above the median in customer satisfaction. Likewise, the "weaknesses" or "opportunity" quadrant contains those attributes above the median in importance, but below the median in satisfaction. Those attributes below the median in importance, but above the median in satisfaction can be labeled the "maintenance of effort" quadrant; while the last "non-critical" quadrant contains those attributes low in importance on which satisfaction is also judged to be low.

However, joint effects with other attributes are undiscovered, and often many attributes are similarly correlated with overall satisfaction. Moreover, the divisions by quadrant are somewhat arbitrary and the magnitude of the differences between attribute ratings is not usually taken into account. This approach, while giving a general overview of the relationship between attribute importance and satisfaction ratings, does not provide a stable quantitative measure of the impact of attributes on overall customer satisfaction.

### **2. Multiple Regression Analysis:**

This approach allows the inclusion of additional independent variables (attributes) when testing the relationship with the dependent variable (overall satisfaction). However, an important consideration is that it is common in customer satisfaction research for attributes to be correlated — sometimes highly — with each other. This multicollinearity makes it difficult to measure the separate effects of the individual attributes on overall satisfaction using the multiple regression approach.

### **3. Factor Analysis:**

Factor analysis is a statistical technique that is used for many purposes including:

- revealing patterns of intercorrelations among variables, and
- reducing a large number of variables to a smaller number of statistically independent variables (dimensions) that are each linearly related to the original variables.

### **4. Combining Factor Analysis and Multiple Regression Analysis**

When multicollinearity is encountered in multiple regression modeling, factor analysis can be used to first transform the independent variables to a smaller set of dimensions or



artificial variables that are uncorrelated among themselves. Then multiple regression modeling is performed to predict the relative impact of the newly constructed dimensions on the dependent variable (overall satisfaction). In addition, established numbers for each attribute that provide the benchmarks against which future similarly collected customer satisfaction attribute measures can be tested — for statistically significant changes in customer perception.

One thing must be taken into consideration is that the this approach includes the need for large sample sizes, the complications of explaining variability and weights, and reduction of potentially rich individual service attribute findings into results for aggregated dimensions.

### ***The Impact Score approach***

The Impact Score approach is a most recent approach used in satisfaction survey. It determines the relative impact of attributes on overall satisfaction, by measuring customers' relative decreases in overall satisfaction, when a recent problem with an attribute is reported.

Based on the literature illustrated above and having taken into account the survey constrains we encounter (one should be aware that no single approach is perfect), we've decided that the multiple regression approach will be adopted in our survey. No factor analysis is performed in this case as the ratings on the attributes used here are the ratings on each unit's overall performance which is composed of six to eight attributes. A possible way to use factor analysis is that all possible service items are listed for rating. Unfortunately, this is not practical and unmanageable for the current survey.

### Data Collection

Several common survey data collection methods have been used in satisfaction surveys, such as self-administered questionnaire, face-to-face interviews and telephone interviews. The self-administered questionnaire is the least expensive method but with least control of respondents. The face-to-face interviews method is the most expensive but with most control of the respondents. The telephone interviews method is in-between the former two methods. In terms of response rate, telephone interviews can achieve the highest rate, followed by self-administered questionnaire and face-to-face interviews. Having considered the feasibility of conducting our survey and the aim of achieving higher response rate in order to make generalization of our results, we adopt self-administered questionnaire method in the staff sample and the telephone interviews method in the student sample.

### Sampling

For obtaining a representative sample, we conducted a census-like sampling of the staff in which each member of our staff is distributed a standardized questionnaire; and we used a random sampling technique for drawing a sample for telephone interviews with all registered students. The survey was conducted in November, 2004. Twenty-one students from Department of Communication were trained to conduct interviews, to exercise supervision, and to perform data-input tasks. The sampling results are listed as follows.

#### 1. Staff Sample

- Seven hundred (700) questionnaires were distributed to the university staff from 18 units in November 2004, of which 360 were sent to academic staff while 340 were sent to administrative staff.
- Five hundred and eleven (511) questionnaires were returned, counting an overall return rate of 73%. The return rate from the administration staff is 78.5% and the academic staff is 67.8%.
- Among all the 18 units, the highest return rate is 100% and the lowest is 30%. The 30% return rate is very low comparing to the second lowest rate of 63%.
- In the sample, five out of 511 respondents were not identified with their respective units due to the missing answers, among which four come from the administration unit while one comes from the academic unit.
- The sampling error is 4.4% at the 95% confidence level.

#### 2. Student Sample

- Six hundred and twelve (612) students were randomly selected from the total of 5889 students of the university. Among them, 590 were randomly selected to be interviewed using the Computer-Assisted Telephone Interviewing (CATI) system while 22 were asked to complete self-administered questionnaires due to the

- unavailability of their contact telephone numbers.
- There are 508 successful cases in total for the student sample. In the telephone interviews, 580 available phone numbers were dialed, among which 11 refused to answer and 64 were not contacted due to line busy, no answer, call-backs and other unknown status. During the interview period from November 2 to 5, 2004, 505 students were successfully interviewed, counting a very high response rate of 91% (AAPOR 3)<sup>2</sup>. Three completed questionnaires were returned from the self-administered sample.
- The sampling error is 4.4% at the 95% confidence level.

## Questionnaire Design

In answering our survey questions, we have designed our questionnaires based on the benchmark questions with additional meaningful questions for further analysis purposes. Two similar versions of questionnaires were constructed with a few different questions in each being used for the staff and the student samples respectively.

The questionnaire used for the staff sample includes 77 questions which are grouped into 10 categories while the student sample consists of 65 questions which are grouped into 9 categories (For the full version of the questionnaires, please refer to the Appendix) .

Staff Questionnaire	Student Questionnaire
1). General questions (5)	1). General questions (5)
2). Equipment & Facilities (12)	2). Equipment & Facilities (13) -- open-ended question (1)
3). Procedure (6)	3). Procedure (6)
4). Environment (7)	4). Environment (7)
5). Service quality (12)	5). Service quality (13)
6). Overall satisfaction (8)	6). Overall satisfaction (7)
7). Service used and needed improvement (2)	7). Service used and needed improvement (2)
8). Opinion for improvement-- open-ended question (1)	8). Opinion for improvement -- open-ended question (1)
9). Faculty service (14)--open-ended question (1)	9). Personal demographics (7) and others (3)
10). Personal demographics (6) and others (1)	

\* The digits in the parentheses indicate the number of questions in the corresponding category.

### *The ten-point scale*

For the satisfaction and performance rating question, we adopted the ten-point scale for several reasons.

1. The ten-point scale is preferred because it can reflect incremental changes over time when used repeatedly, and it can reflect the extent of progress in reaching service targets (Hernon & Whitman, 2001).

<sup>2</sup> AAPOR3 is the third formula suggested by the American Association for Public Opinion Research (AAPOR). It is the strictest calculation with the inclusion of those unknown cases. Details can be found at [http://www.aapor.org/default.asp?page=survey\\_methods/standards\\_and\\_best\\_practices](http://www.aapor.org/default.asp?page=survey_methods/standards_and_best_practices).

2. The ten-point scale is easily understood and avoids a numeric midpoint while a 5-point or 7-point scale offers a midpoint which would allow the respondent to avoid answering the question.
3. The 10-point scale can help to measure whether the user is more or less satisfied, in however small degree. The labels at each end can denote the extreme limits of dissatisfaction and satisfaction, respectively.

The following illustration shows the interpretation of such scaling and the average scores from the sample.

Question: What is your overall level of satisfaction with all services provided by various administrative units of UM?

[1]	[2	3	4]	[5]	[6]	[7	8	9]	[10]
<b>Lowest</b>					<b>Highest</b>				

- Scores of 1 and 10 are extreme, few people probably choose either of these scores.
- Scores of [5 6] indicate only slight dissatisfaction or satisfaction; however, selecting the 5 or 6 forces an inclination in one direction or the other.
- The [2 3 4] and [7 8 9] ranges indicate dissatisfaction and satisfaction, respectively. Most people will respond in these ranges.
- [7 8 9] grouping offers the respondent a way to fine-tune a non-extreme score. That is, a score of 7 indicates moderate satisfaction and signals that there is room for improvement without expressing actual dissatisfaction. The same reason applies to [2 3 4] grouping.
- An average score of at least 8 is very good, whereas people who score a 7 are indicating that they are not exactly dissatisfied, but that they are near the lowest range of satisfaction.
- Scores below a 7 should be a cause of concern, but of greatest and most immediate concern are those who score in the 1 to 4 range. These responses are clearly signaling certain dissatisfaction. Imagine that the lower the score, the louder the voice of dissatisfaction.

Another type of significant questions is the users' expectations score: Please indicate whether our service fall short of, exactly meet, or exceed your expectations.

-3	-2	-1	0	1	2	3
Completely Fall Short of Expectation	Somewhat Fall Short of Expectation	Slightly Fall Short of Expectation	Exactly Meet Expectations	Slightly Exceed Expectations	Somewhat Exceed Expectations	Completely Exceed Expectations

A score of 0 would mean that expectations were exactly met—nothing more, nothing less. Scores higher than 0 would indicate that service exceeds the users' expectations while scores below 0 indicate that the users' expectations are not being met. The latter would imply that a problem or misunderstanding should be identified and corrected.

A recommendation question was also used to tap whether the users would recommend the service to others using a scale of 1=Never, 2=Seldom, 3=Sometimes, and 4=Always: How often do you praise/recommend UM's administrative services to others?

## Statistical Analysis Strategy

We have set our survey questions in Part I:

- How much are the respondents satisfied with the overall performance by the administrative units?
- How do the respondent rate the performance by each of the administrative unit?
- What are the concerns by the respondents?
- What are the potentially critical areas of user dissatisfaction?
- What demographical factors correlate satisfaction?
- What are the important factors that contribute to overall satisfaction with all services?

The survey results are produced using several statistical techniques.

Firstly, the characteristics of the respondents from the two sample are summarized.

Secondly, descriptive results of the rating of the services and identifiable critical areas of service are presented for the examination of the overall satisfaction scores of all service and the performance rating of a specific service.

Thirdly, relationship analysis was performed in order to find out the associations between/among important variables. Special attention was paid to the relationship between demographical variables and the satisfaction variables.

Fourthly, regression analysis was performed in order to identify the significant factors that contribute to the overall satisfaction.

Finally, a brief description of the results of the open-ended questions was displayed in order to supplement the quantitative data analyses.

### *Reading Statistics*

- **Coding Scheme of Mean Scores**

- Mean Score is 7.0 or higher. A green circle indicates that things are probably OK and you don't need to do anything immediately.
- ▲ Mean Score is between 6.0 and 6.9. A yellow trapezoid indicates that there might be problems that need addressing and further investigation into the nature of the problems.
- ▲ Mean Score is below 5.0. A red triangle indicates that there is probably a problem that needs addressing and some kind of action or further investigation is required.

- **Standard Deviation (Std. Deviation, SD)**

- The measure of dispersion. It shows how much agreement there is among respondents who answered that question.
- For example, Mean score=5, SD=0.5, then according to law of 68-95-99.7,

95% of the respondents' ratings fall between 4.02 ( $5-1.96 \times 0.5$ ) to 5.98 ( $5+1.96 \times 0.5$ ).

- The lower the SD, the more agreement there is among respondents.
- The larger the SD, the larger the variances among the scores, and thus making the mean score less representative.
- Attention must be paid to those mean scores with large SDs.

- **Standard Error of the Mean**

- The same concept as the sampling error when making generalization from the sample to the population. It is an estimation of the true value in the population based on the sample.
- For example, Std. error of Mean =0.2, Mean=6, then at the 95% confidence level, the estimation of the mean of the population would be  $6 \pm (0.2 \times 1.96)$ .

- **Pearson's correlation coefficient (Pearson r)**

- It indicates the type and strength of a linear relationship between two variables. It ranges from +1 to -1.
- A correlation of +1 means that there is a perfect positive linear relationship between variables while -1 represents a perfect negative relationship.

- **The partial regression coefficient (B)**

- The partial regression coefficient for an attribute (an administrative unit in this case) indicates that how much the value of the dependent variable (S) changes when the value of that independent variable (attribute) increase by 1 and the values of the other attributes do not change. When a coefficient for an attribute is significant, it means that the null hypothesis that the coefficient for that attribute is 0 can be rejected.
- A regression equation looks like this:  
$$S = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_n X_n$$
where  $a$ =constant,  $\beta_n$ = partial regression coefficient,  $X_n$ =attribute.

For example,

$$S = 0.75 + 0.39 \times \text{AAB} + 0.21 \times \text{FGO} + 0.19 \times \text{CSB} + 0.19 \times \text{PO} + 0.16 \times \text{BAF} + 0.00 \times \text{Library} - 0.05 \times \text{GAB} - 0.19 \times \text{PR}$$

The coefficient for AAB tells that the predicted overall satisfaction with all services increases by 0.39 units for a change of 1 unit in the value of AAB. For those coefficients being non-significant, it doesn't mean that they are not good predictors. They just don't contribute significantly to the model being considered.

- **Statistically significance level: \* <.05; \*\*\*<.01; \*\*\*\*<.001**

- When the finding is significant at the .05 level (two-tailed), it means that there is a 5% likelihood that the finding is a result of chance. Or a significant difference or relationship found at the .05 level of probability means that researchers are 95% confident that the difference or relationship is not due to chance or error. The same token applies to .01 (1%) and .001 (0.1%) levels.

## Survey Results

### I. Sample Characteristics

#### 1. Staff Sample

As all staff was sampled with a considerably high return rate of 73%, the sample for analysis can be considered as a good sample representing the population of all staff in general. However, particular attention should be paid to those units with a return rate lower than the average 73%, especially to FSH which only came up with a 30% return rate.

The sample is composed of 60.2% male and 39.8% female staff. A slightly more than half of them come from the administrative units while the other slightly less than half come from the academic as well as research units. GAP shares the largest percent (35.8%) of the administrative sub-sample whereas FBA (29.2%) and FST (24.7%) are the first two largest groups from the academic sub-sample. Thirty-seven percent of the staff have worked for the university for less than five years, 25% for 5 to 10 years, 22% for 11 to 15 years, and 15% for more than 15 years.

**Table 1 Gender**

	Frequency	Percent	Valid Percent
Male	303	59.3	60.2
Female	200	39.1	39.8
Sub-Total	503	98.4	100.0
Missing	8	1.6	
Total	511	100.0	

**Table 2 Type of Staff**

	Frequency	Percent
Administrative	267	52.3
Academic	231	45.2
Research	13	2.5
Total	511	100.0



**Table 3 Administrative Unit**

	Frequency	Percent	Valid Percent
AAB (REG+SO)	22	8.2	11.4
BAF (AC+TRE+PCT)	30	11.2	15.5
GAB (CS+RE)	69	25.8	35.8
CSB	23	8.6	11.9
LIB	20	7.5	10.4
PO	9	3.4	4.7
PRO	7	2.6	3.6
PUB	1	0.4	0.5
RTO	11	4.1	5.7
UCO	1	0.4	0.5
Sub-Total	193	72.3	100.0
Missing	74	27.7	
Total	267	100.0	

**Table 4 Academic/Research Unit**

	Frequency	Percent	Valid Percent
FBA	71	29.1	29.2
FED	28	11.5	11.5
FLL	19	7.8	7.8
FSH	29	11.9	11.9
FST	60	24.6	24.7
CPU	20	8.2	8.2
ELC	11	4.5	4.5
CCS	1	0.4	0.4
CMS	4	1.6	1.6
Sub-Total	243	99.6	100.0
System	1	0.4	
Total	244	100.0	

**Table 5 Number of years serving at UM**

	Frequency	Percent	Valid Percent
Under 5 years	186	36.4	37.3
5 to 10 years	125	24.5	25.1
11 to 15 years	110	21.5	22.0
Above 15 years	78	15.3	15.6
Sub-Total	499	97.7	100.0
Don't know	2	0.4	
Missing	10	2.0	
Total	511	100.0	

## 2. Student Sample

It was found that there was no significant discrepancy between the sample and the population in terms of students' demographic characteristics.

The sample consists of 43% male and 57% female. The first and second year students account for 61% of the total with 30% from each year respectively. The third year shares 21% and the fourth accounts for 18%. The majority (73.8%) of them are daytime students while the rest (25.8%) are taking evening courses. More than half of the students come from FBA and FSH. More than one-third of the students earn a GPA ranging from 2.5 to 3.19. Nearly 90% of the students are living with parents and 5% are living in the hostels.

Regarding their study time after class, 41% of the students claimed that they spent less than 7 hours per week, counting for less than one hour per day. Only did 10% of them spend more than 21 hours weekly, counting for 3 hours daily.

Asking their time of staying in campus after class, more than 65% replied that they stayed for less than 7 hours in campus per week. Only did 5% claim that they stayed for more than 21 hours in campus weekly.

**Table 6 Gender**

	Frequency	Percent
Male	218	42.9
Female	290	57.1
Total	508	100.0

**Table 7 Study Year**

	Frequency	Percent
First	154	30.3
Second	156	30.7
Third	108	21.3
Fourth	85	17.7
Total	508	100.0

**Table 8 Study Mode**

	Frequency	Percent
Day time	375	73.8
Evening class	131	25.8
Don't know	2	0.4
Total	508	100.0

<b>Table 9 Faculty</b>		
	Frequency	Percent
FBA	151	29.7
FSH	130	25.6
FST	93	18.3
FED	66	13.0
FLL	42	8.3
CPU	26	5.1
Total	508	100.0

<b>Table 10 GPA</b>			
	Frequency	Percent	Valid Percent
Below 2.0 (0-11)	77	15.2	22.8
2.0-2.49 (12-13)	75	14.8	22.2
2.5-3.19 (14)	121	23.8	35.8
3.2-3.69 (15)	61	12.0	18.0
3.7-4.0 (16-20)	4	0.8	1.2
Total	338	66.5	100.0
Missing	170	33.5	
Total	508	100.0	

<b>Table 11 Housing Status</b>		
	Frequency	Percent
Home (with parents)	454	89.4
Student Hostel	25	4.9
Rental Apartment	23	4.5
Others	6	1.2
Total	508	100.0

<b>Table 12 How many hours do you spend on studying weekly other than in class?</b>			
	Frequency	Percent	Valid Percent
Fewer than 7 hours	200	39.4	41.2
7-14 hours	156	30.7	32.2
15-21 hours	80	15.7	16.5
More than 21 hours	49	9.6	10.1
Total	485	95.5	100.0
Hard to say/ Don't know	23	4.5	
Total	508	100.0	

<b>Table 13 How many hours do you spend on campus weekly other than in class?</b>			
	Frequency	Percent	Valid Percent
Fewer than 7 hours	325	64.0	65.8
7-14 hours	113	22.2	22.9
15-21 hours	30	5.9	6.1
More than 21 hours	26	5.1	5.3
Total	494	97.2	100.0
Hard to say/ Don't know	14	2.8	
Total	508	100.0	

## II. Main Findings

This section illustrates three types of main findings of the surveys: descriptive, relationship and important attributes derived.

### 1. Descriptive Findings

#### 1) Mean scores of Overall Satisfaction (Staff Sample)

With the same standard error of mean and similar standard deviations, the mean scores of overall satisfaction is self-explanatory listed in the table below using the coding scheme designed earlier.

The staff rated all services provided by the administrative units with a mean score of 7.2 and the frontline services with a mean score of 7.4. These two ratings suggest that the staff are satisfied with the services in a broad sense.

Of the nine attributes/units, five of them received mean scores above 7.0 which were marked with a green circle in the tables, indicating that the users are satisfied with the performance. This implies that the services are probably OK and the corresponding units don't need to do anything immediately. These attributes are CSB, GAB, Library, PO and Faculty Office. Among them, Faculty Office received a considerable higher score of 8.5 from the academic staff.

Four of the nine attributes received mean scores between 6.0 and 6.9 which were marked with a yellow trapezoid, suggesting that there might be problems that need addressing and further investigation into the nature of the problems is required. These attributes are AAB, BAF, PR, and PUB.

**We should bear in mind with caution when we interpret these mean scores and the coding scheme. Looking closer to the means scores and considering the subjective coding scheme, there is not much difference among these attributes except for that of Faculty Office. The difference between a green circle and a trapezoid can be as small as a score of 0.2.**

#### 2) Mean scores of Overall Satisfaction (Student Sample)

The students rated the overall administrative services with a mean score of 6.5 and the frontline services with a mean score of 6.9 which are comparatively lower than those of the staff.

Library, the only one of the seven attributes, was coded with a green circle while the other six were marked with a yellow trapezoid. These six attributes includes REG, SO, Treasury Office, CSB, GAB, and Faculty Office. Regarding the faculty office service, it should be noted that FLL received a considerable low mean score of 5.9, being marked with a red triangle, indicating that there is probably a problem that needs addressing and some kind of action or further investigation is required into it.

In summary, the students underrated the service than the staff did. This result was echoed with the findings from the expectations question analyzed in the following section.

**Table 14 Overall Satisfaction (Staff)**

	N	Mean	Std. Error of Mean	Std. Deviation	Coding
<b>All Services</b>	464	7.2	0.1	1.5	
<b>Frontline Services</b>	420	7.4	0.1	1.4	
<b>AAB</b>	343	6.9	0.1	1.6	
<b>BAF</b>	414	6.8	0.1	1.7	
<b>CSB</b>	469	7.2	0.1	1.7	
<b>GAB</b>	441	7.3	0.1	1.5	
<b>Library</b>	435	7.3	0.1	1.5	
<b>PO</b>	462	7.1	0.1	1.7	
<b>PR</b>	337	6.9	0.1	1.6	
<b>PUB</b>	175	6.7	0.1	1.8	
<b>Faculty Office</b>	235	8.5	0.1	1.4	
CPU <sup>a</sup>	20	9.4	0.2	0.7	
ELC	11	9.1	0.4	1.2	
FST	58	8.7	0.1	1.0	
FLL	18	8.6	0.4	1.6	
CMS	3	8.3	0.3	0.6	
FBA	71	8.3	0.2	1.6	
FSH	26	8.2	0.3	1.4	
FED	27	8.0	0.3	1.3	
CCS					

**Table 15 Overall Satisfaction (Students)**

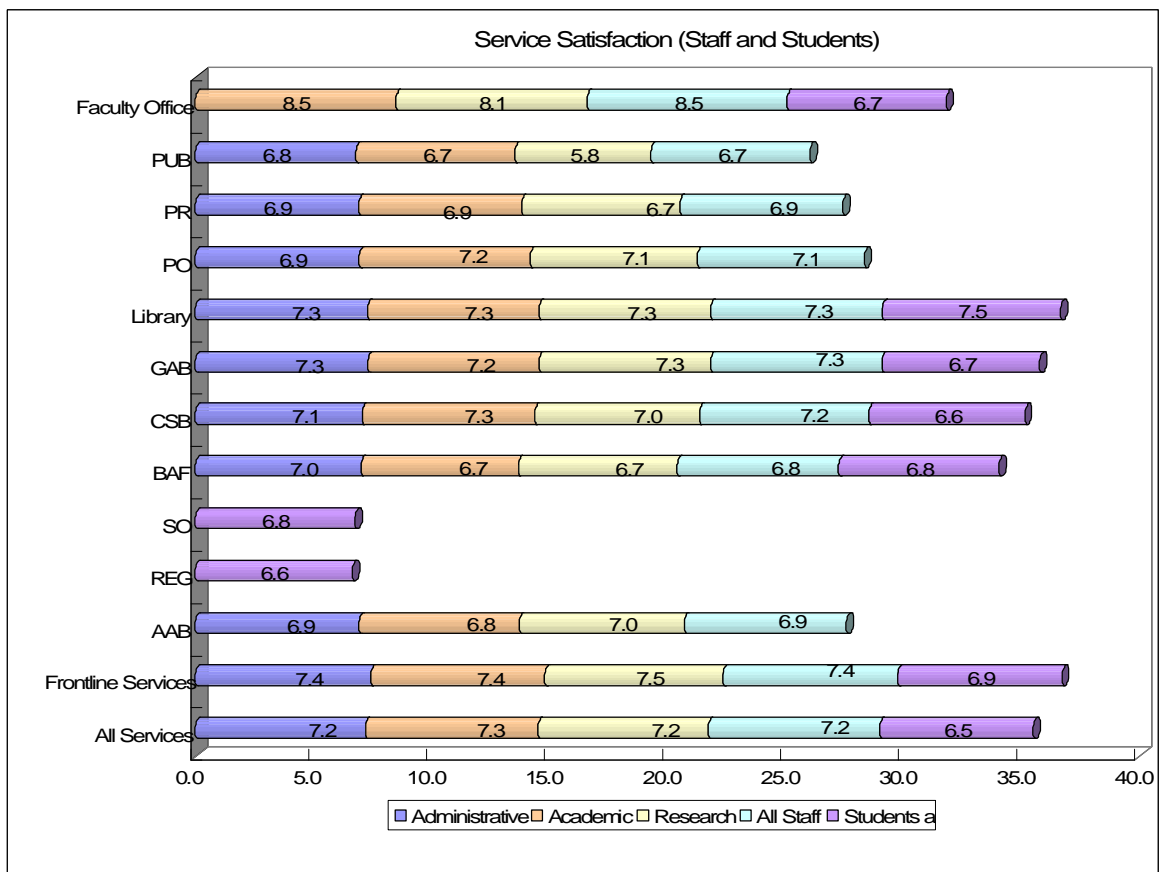
	N	Mean	Std. Error of Mean	Std. Deviation	Coding
<b>All Services</b>	496	6.5	0.1	1.3	
<b>Frontline Services</b>	489	6.9	0.1	1.3	
<b>REG</b>	501	6.6	0.1	1.5	
<b>SO</b>	463	6.8	0.1	1.5	
<b>Treasury Office</b>	483	6.8	0.1	1.4	
<b>CSB</b>	481	6.6	0.1	1.4	
<b>GAB</b>	403	6.7	0.1	1.2	
<b>Library</b>	502	7.5	0.1	1.2	
<b>Faculty Office</b>	492	6.7	0.1	1.6	
CPU <sup>a</sup>	22	7.4	0.2	1.0	
FED	63	7.3	0.1	1.1	
FST	89	7.0	0.2	1.5	
FSH	127	6.7	0.1	1.5	
FBA	149	6.5	0.1	1.7	
FLL	42	5.9	0.3	2.2	

<sup>a</sup> The mean score of FLL is statistically significant less than those of CPU, FED, and FST.

**Table 16 Comparison of Satisfaction Rating of Services (Staff and Students)**

	Administrative	Academic	Research	All Staff	Students <sup>a</sup>
All Services	7.2	7.3	7.2	7.2	6.5
Frontline Services	7.4	7.4	7.5	7.4	6.9
AAB	6.9	6.8	7.0	6.9	-
REG	-	-	-	-	6.6
SO	-	-	-	-	6.8
BAF	7.0	6.7	6.7	6.8	6.8
CSB	7.1	7.3	7.0	7.2	6.6
GAB	7.3	7.2	7.3	7.3	6.7
Library	7.3	7.3	7.3	7.3	7.5
PO	6.9	7.2	7.1	7.1	-
PR	6.9	6.9	6.7	6.9	-
PUB	6.8	6.7	5.8	6.7	-
Faculty Office		8.5	8.1	8.5	6.7

<sup>a</sup> For students sample, REG and SO are asked instead of AAB, and Treasury Office is asked instead of BAF.























### 3) Mean scores of different service items

The following table listed the mean scores and coding in terms of service items. The same explanatory strategy mentioned above should be applied to them.


















For the staff sample, special attention should be paid to the facilities such as Sports Complex facilities, office space, range of books in Library, recreational areas, and car-part lots.

For the student sample, the following items in particular should be concerned: performance of computing equipment in computer room, Sports Complex facilities, intranet accessibility off-campus, facilities in canteen, quantity of computing equipment in computer rooms, recreational areas, procedure of locker renting, course enrollment, quietness in computer rooms, school clinic service, sufficiency of photocopying services, and sport activities.



















When comparison was made to the findings of the above-mentioned areas that should be concerned and the findings from the direct question of the service items that the users always use and that need to be improved (it was presented in Table 19 and Table 20 followed immediately ), similar patterns were also found.
























<b>Table 17 Ratings by Service Items (Staff)</b>					
<b>Service</b>	<b>N</b>	<b>Mean</b>	<b>Std. Error of Mean</b>	<b>Std. Deviation</b>	<b>Coding</b>
<b>Equipment and Facilities</b>					
Classroom facilities	415	6.9	0.1	1.7	
Application software provided for general purposes	454	6.7	0.1	1.8	
Facilities in staff hostels (campus residents)	51	6.6	0.3	2.3	
Computer equipment in offices	462	6.6	0.1	1.9	
Intranet accessibility off-campus	370	6.5	0.1	2.0	
Signposts on campus	437	6.4	0.1	1.8	
Facilities in washrooms (e.g. toilet tissue, hanger, hand dryer...etc)	487	6.4	0.1	2.0	
Sports Complex facilities	276	5.9	0.1	2.0	
Office space	474	5.9	0.1	2.2	
Range of books in Library	414	5.5	0.1	1.9	
Recreational areas	420	5.2	0.1	2.1	
Car-park lots	341	4.9	0.1	2.3	
<b>Operation Procedures</b>					
Procedure for loaning/returning books	401	7.4	0.1	1.5	
Procedure for booking car/school bus	249	7.1	0.1	1.6	
Procedure for souvenir requisition and distribution	214	6.7	0.1	1.8	
Payment procedure	296	6.6	0.1	1.8	
Confidentiality of staff records	341	6.6	0.1	2.0	
Procurement procedure	307	6.0	0.1	2.0	
<b>Environment Condition</b>					
Quietness in Library	407	7.2	0.1	1.8	
Hygiene in your own office/working	477	7.1	0.1	1.6	



place					
Hygiene in classrooms	407	6.9	0.1	1.7	
Air-conditioning in classrooms	409	6.8	0.1	1.9	
Air-conditioning in your own office/working place	479	6.8	0.1	2.1	
Hygiene of resting areas on campus	424	6.6	0.1	1.8	
Hygiene in washrooms	482	6.2	0.1	2.0	
<b>Service Quality</b>					
Photocopying service	386	7.2	0.1	1.9	
Security service	445	7.2	0.1	1.5	
Maintenance service	414	7.2	0.1	1.5	
Library orientation	215	7.1	0.1	1.6	
IT Help Desk support service for Computing equipment	443	7.0	0.1	1.8	
Hostel management	122	7.0	0.2	1.7	
Cleaning service	475	6.9	0.1	1.7	
Event/ activity/ seminar arrangement and supporting	292	6.6	0.1	1.9	
Staff training	337	6.6	0.1	1.8	
Classroom allocation	330	6.5	0.1	1.9	
Staff recruitment service	236	6.4	0.1	1.9	
Staff activities organizing	356	6.2	0.1	2.1	

**Table 18 Ratings by Service Items (Students)**

Service	N	Mean	Std. Error of Mean	Std. Deviation	Coding
<b>Equipment and Facilities</b>					
Functions provided in SIWeb	479	7.1	0.2	3.9	
Classroom facilities	507	6.9	0.1	1.4	
Facilities in washrooms	508	6.8	0.1	1.5	
E-purse services	419	6.8	0.1	1.5	
Range of books in Library	501	6.8	0.1	1.8	
Application software provided for course work	482	6.6	0.1	1.5	
Student hostels and facilities (hostel students)	25	6.6	0.4	1.8	
Signposts on campus	497	6.2	0.1	1.6	
Space for study room/study area	470	6.0	0.1	1.7	
Performance of computing equipment in computer room	492	5.9	0.1	1.7	
Sports Complex facilities	341	5.8	0.1	1.6	
Intranet accessibility off-campus	404	5.8	0.1	1.9	
Facilities in canteen	490	5.8	0.1	1.7	
Quantity of computing equipment in Computer rooms	495	5.8	0.1	1.9	
Recreational areas	499	5.6	0.1	1.7	
<b>Operation Procedures</b>					
Procedure for loaning/returning books	492	7.5	0.1	1.2	
Procedure for payment	490	6.6	0.1	1.5	
Procedure of registration (new students)	154	6.6	0.1	1.5	

Procedure for applying testimonials and transcripts	367	6.3	0.1	1.5	
Procedure of locker renting	374	5.7	0.1	1.6	
Course enrollment	472	5.7	0.1	1.8	
<b>Environment Condition</b>					
Quietness in Library	501	7.7	0.1	1.4	
Hygiene in classrooms	508	7.2	0.1	1.4	
Hygiene in student hostels (hostel students)	25	7.1	0.3	1.7	
Hygiene of resting areas on campus	499	6.8	0.1	1.3	
Hygiene in washrooms	508	6.4	0.1	1.6	
Air-condition in classrooms	507	6.3	0.1	1.5	
Quietness in computer rooms	488	5.7	0.1	1.7	
<b>Service Quality</b>					
Assistance accessibility in Library	477	7.0	0.1	1.4	
Library use & orientation course	402	6.6	0.1	1.3	
Student hostel management	26	6.5	0.4	2.1	
Sufficiency of current payment channels	490	6.4	0.1	1.5	
Satisfaction of security services	446	6.4	0.1	1.5	
Campus building maintenance service	477	6.4	0.1	1.4	
Classroom allocation	501	6.1	0.2	4.0	
Student counseling service	270	6.1	0.1	1.6	
Supporting service in computer rooms	461	6.1	0.1	1.6	
Career guidance service	241	6.0	0.1	1.7	
School clinic service	211	5.8	0.1	1.8	
Sufficiency of photocopying services	478	5.5	0.1	1.9	
Sport activities	329	5.5	0.1	1.8	

4) The service items that the staff always use and that need to be improved

The items marked in blue bold are the top ten services that the staff always use and those in red bold are the top ten services that they think need to be improved.

Service Used	Service Used			Improvement needed			
	Count	Responses	Cases	Count	Responses	Cases	
<b>Computer support</b>	322	15%	<b>68%</b>	137	16%	<b>35%</b>	<b>Car parking</b>
<b>Photocopying</b>	270	13%	<b>57%</b>	117	14%	<b>30%</b>	<b>Computer support</b>
<b>Book loaning/returning</b>	211	10%	<b>44%</b>	115	13%	<b>30%</b>	<b>Cleaning</b>
<b>Car parking</b>	204	10%	<b>43%</b>	74	9%	<b>19%</b>	<b>Procurement</b>
<b>Cleaning</b>	200	9%	<b>42%</b>	71	8%	<b>18%</b>	<b>Photocopying</b>
<b>Maintenance</b>	178	8%	<b>38%</b>	59	7%	<b>15%</b>	<b>On-campus clinic</b>
<b>Procurement</b>	149	7%	<b>31%</b>	55	6%	<b>14%</b>	<b>Classroom booking</b>
<b>Classroom booking</b>	143	7%	<b>30%</b>	47	5%	<b>12%</b>	<b>Event/Seminar</b>
<b>Car booking</b>	114	5%	<b>24%</b>	44	5%	<b>11%</b>	<b>Maintenance</b>
<b>Sports Venue booking</b>	86	4%	<b>18%</b>	36	4%	<b>9%</b>	<b>Sports Venue booking</b>
Event/Seminar organizing/supporting	77	4%	16%	32	4%	8%	Car booking
Souvenir requisition	66	3%	14%	26	3%	7%	Book loaning/returning
On-campus clinic	63	3%	13%	23	3%	6%	Souvenir requisition
Accommodation reservation	47	2%	10%	17	2%	4%	Others
Others	5	0%	1%	11	1%	3%	Accommodation reservation
Total responses	2135	100%	450%	864	100%	222%	
36 missing cases; 475 valid cases				122 missing cases; 389 valid cases			

\* The top ten items are marked in blue or red.

5) The service items that the students always use and that need to be improved

The items marked in blue bold are the top ten services that the students always use and those in red bold are the top ten services that they think need to be improved.

Table 20 The service items that the students always use and that need to be improved							
	Service Used			Improvement needed			
	Count	Responses	Cases	Count	Responses	Cases	
<b>Computer room</b>	371	33%	<b>73%</b>	171	25%	<b>34%</b>	<b>Computer room</b>
<b>Book loaning/returning</b>	316	28%	<b>62%</b>	135	20%	<b>27%</b>	<b>Reject to answer</b>
<b>Canteen service</b>	103	9%	<b>20%</b>	95	14%	<b>19%</b>	<b>Others</b>
<b>Photocopying</b>	78	7%	<b>15%</b>	72	10%	<b>14%</b>	<b>Canteen service</b>
<b>Others</b>	51	5%	<b>10%</b>	45	7%	<b>9%</b>	<b>Photocopying</b>
<b>Library orientation and assistance</b>	50	5%	<b>10%</b>	30	4%	<b>6%</b>	<b>Sports complex venue rental</b>
<b>Sports complex venue rental</b>	37	3%	<b>7%</b>	27	4%	<b>5%</b>	<b>Cleaning</b>
<b>E-purse value adding</b>	34	3%	<b>7%</b>	22	3%	<b>4%</b>	<b>Book loaning/returning</b>
<b>Faculty office</b>	16	1%	<b>3%</b>	16	2%	<b>3%</b>	<b>Faculty office</b>
<b>Applying testimonials/transcripts</b>	15	1%	<b>3%</b>	13	2%	<b>3%</b>	<b>Library orientation and assistance</b>
Reject to answer	11	1%	2%	12	2%	2%	School clinic
Event/Seminar organizing/supporting	7	1%	1%	12	2%	2%	Security consultation
Student counseling	7	1%	1%	10	1%	2%	Event/Seminar organizing/supporting
Cleaning	6	1%	1%	9	1%	2%	Applying testimonials/transcripts
Career guidance	3	0%	1%	8	1%	2%	E-purse value adding
Student hostel	2	0%	0%	6	1%	1%	Maintenance
Laundry	1	0%	0%	5	1%	1%	Student counseling
Maintenance	1	0%	0%	2	0%	0%	Student hostel
School clinic	1	0%	0%	2	0%	0%	Career guidance
Security consultation	1	0%	0%	1	0%	0%	Laundry
Total responses	1111	100%	219%	693	100%	136%	Total responses
0 missing cases; 508 valid cases				0 missing cases; 508 valid cases			

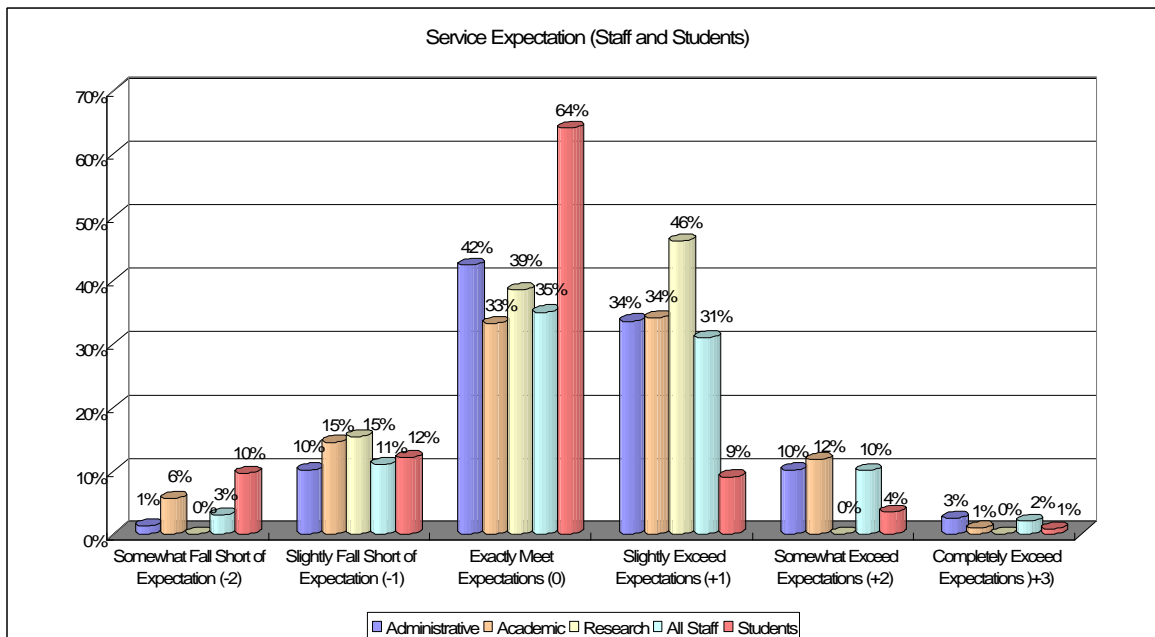
\* The top ten items are marked in blue or red.

## 5) Service Expectations

Generally speaking, it was found that the services meet most of the users' expectations. More than three-fourth of the users from the staff and student samples answered that the services exactly meet or exceed their expectations. While there are more than one-third of the staff claimed that the service exceed their expectations, 14% of the students claimed so. Twenty-three percent of the students claimed that the service fall short of their expectations while 14% of the staff claimed so. Furthermore, all groups from the staff sample received a positive mean core, whereas the student group received a negative one. This suggests that students have higher expectations of the service than the administrative, academic, and research staff.

Table 21 Service Expectations (Staff and Students)

	Administrative	Academic	Research	All Staff	Students
Completely Fall Short of Expectation (-3)					1%
Somewhat Fall Short of Expectation (-2)	1%	6%	0%	3%	10%
Slightly Fall Short of Expectation (-1)	10%	15%	15%	11%	12%
Exactly Meet Expectations (0)	42%	33%	39%	35%	64%
Slightly Exceed Expectations (+1)	34%	34%	46%	31%	9%
Somewhat Exceed Expectations (+2)	10%	12%	0%	10%	4%
Completely Exceed Expectations (+3)	3%	1%	0%	2%	1%
<b>Mean</b>	<b>0.49</b>	<b>0.34</b>	<b>0.31</b>	<b>0.2</b>	<b>-0.14</b>



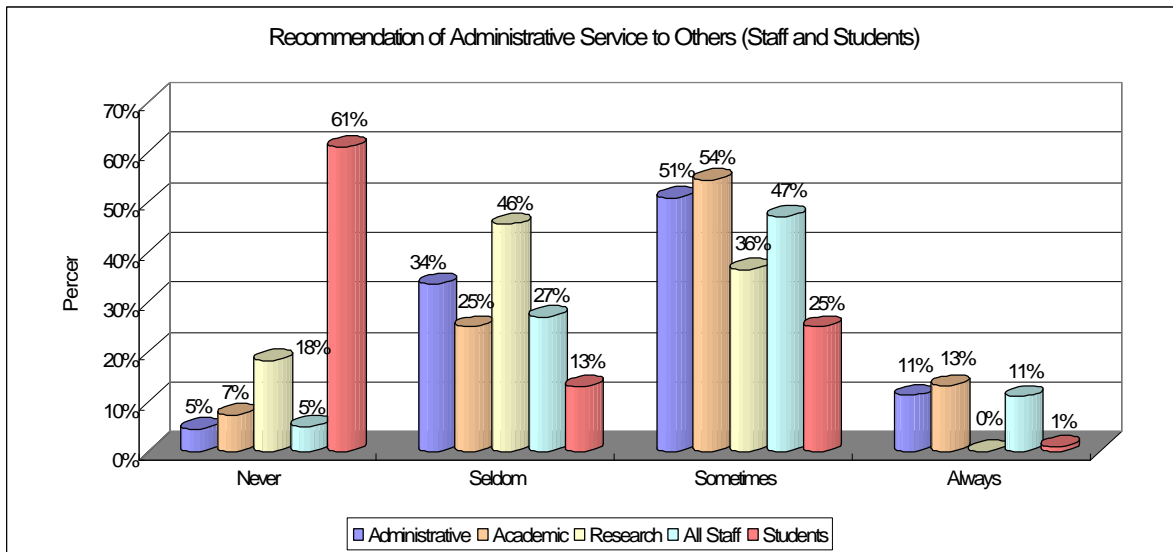
6) Service Recommendation

There are 58% of the staff sometimes or always recommend the services to others while 26% of the students do so. Sixty-one of the students never recommend the services whereas only 5% of the staff never do so. This suggests that students are more unlikely to recommend the services to others than the staff.

At this point, taking the ratings of satisfaction, service expectations and recommendation into consideration, the results indicates that students were less satisfied with the services than the staff in general.

Table 22 Recommendation of Administrative Services to Others (Staff and Students)

	Administrative	Academic	Research	All Staff	Students
Never	5%	7%	18%	5%	61%
Seldom	34%	25%	46%	27%	13%
Sometimes	51%	54%	36%	47%	25%
Always	11%	13%	0%	11%	1%

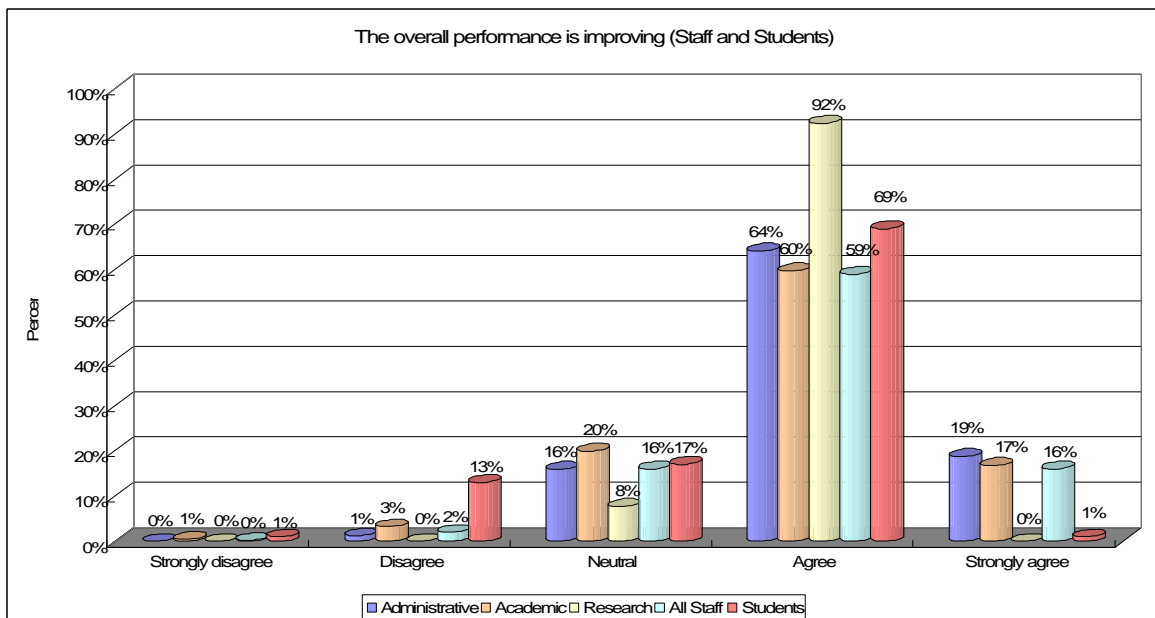


## 7) Performance Improvement

**Table 23 The overall performance is improving (Staff and Students)**

	Administrative	Academic	Research	All Staff	Students
Strongly disagree	0%	1%	0%	0%	1%
Disagree	1%	3%	0%	2%	13%
Neutral	16%	20%	8%	16%	17%
Agree	64%	60%	92%	59%	69%
Strongly agree	19%	17%	0%	16%	1%

Generally speaking, it was found that most of the users agreed or strongly agreed that the overall performance is improving. It should be noted that while only 2% of the staff disagreed the statement, 14% of the students claimed that they disagree or strongly disagreed so.





## 2. Relationship

The descriptive findings illustrated in the previous section have given us a general idea of that to what extent the users are satisfied with the services, what critical areas of user dissatisfaction are, and what services the users are concerned the most. This section shows the relationship among/between users' demographic factors and their satisfaction ratings.

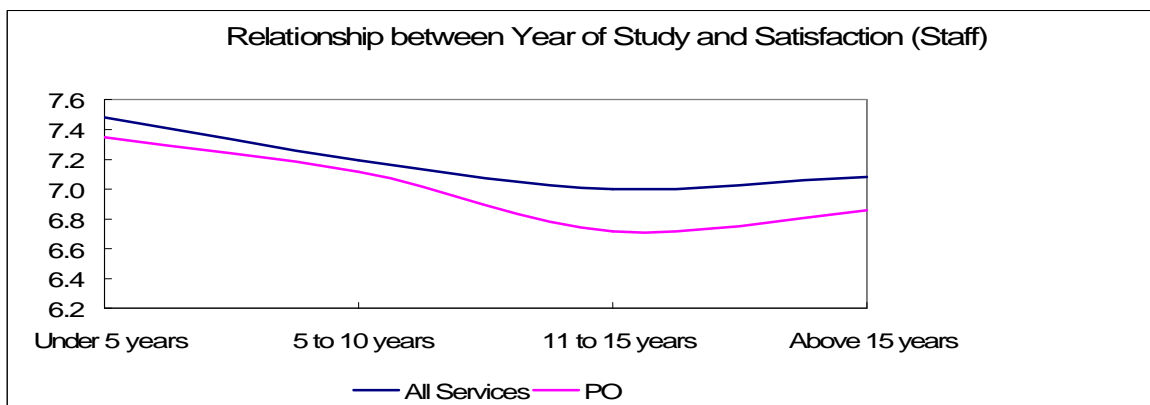
A series of correlation analyses were performed in order to find out what demographic factors correlate the satisfaction items, including the overall satisfaction with all services in general and the specific satisfaction with each administrative unit. The findings presented in this section are those with statistically significant relationship at the 95% confidence level or higher. Findings without significant correlation are not presented. One should note that the correlation only shows a linear relationship between variables, not necessary leads to a cause and effect outcome.

### 1) Relationship between Year of Service and Satisfaction (Staff)

It was found that the year of service of the staff negatively correlate the satisfaction with all services and the satisfaction with the Personnel Office. Although the strength of correlation is weak ( $r=-.12$  and  $r=-.14$  respectively), it gives us a signal that for those who are new comers are more likely to have positive and higher satisfaction with the overall services and the service provided by the personnel office than the veterans except for the oldest group (working for above 15 years). Those who have worked for not more than five years acknowledged the services the most (mean=7.5 and mean=7.4 respectively) while those have worked for 11 to 15 years rated the performance the least.

Year of Service	All Services	PO
Under 5 years	7.5	7.4
5 to 10 years	7.2	7.1
11 to 15 years	7.0	6.7
Above 15 years	7.1	6.9
r	-.12*	-.14*

\* The coefficient is at the .05 significance level.



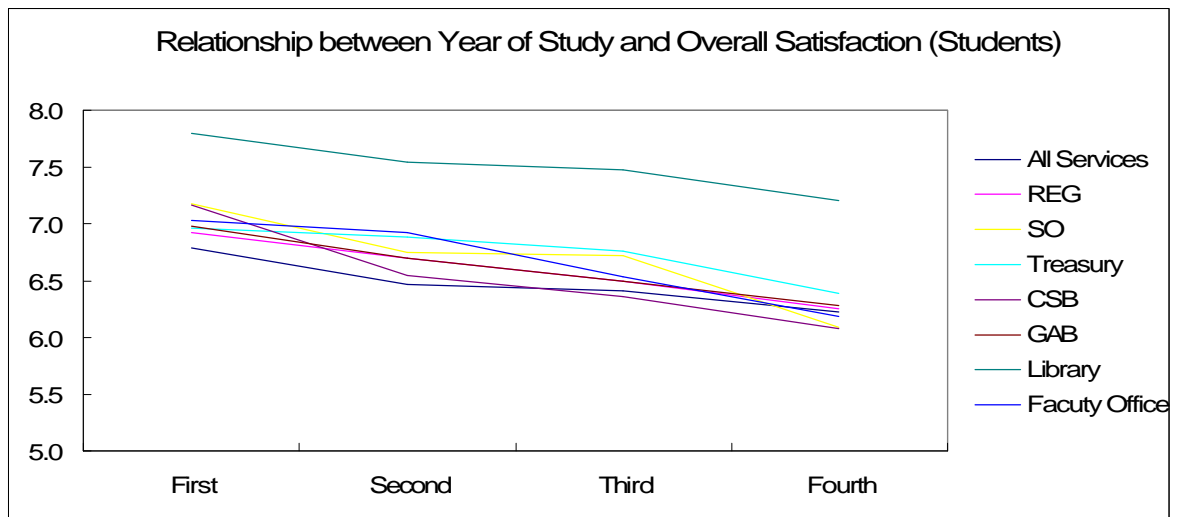
2) Relationship between Year of Study and Overall Satisfaction (Students)

Interestingly, the year of study was also found to be negatively correlated with satisfaction with each attribute. The freshmen are more satisfied with the services than the seniors. Attention should be paid to the strength of relationship between the year of study and the ratings for SO and CSB ( $r=-.22$  and  $r=-.27$  respectively). It seems that these two units are more closely related to the students' year of study.

Table 25 Relationship between Year of Study and Overall Satisfaction (Students)

Year of Study	All Services	REG	SO	Treasury	CSB	GAB	Library	Faculty Office
First	6.8	6.9	7.2	7.0	7.2	7.0	7.8	7.0
Second	6.5	6.7	6.8	6.9	6.6	6.7	7.5	6.9
Third	6.4	6.5	6.7	6.8	6.4	6.5	7.5	6.5
Fourth	6.2	6.2	6.1	6.4	6.1	6.3	7.2	6.2
r	-.14**	-.16**	-.22**	-.13**	-.27**	-.19**	-.15**	-.19**

\*\* The coefficient is at the .01 significance level.



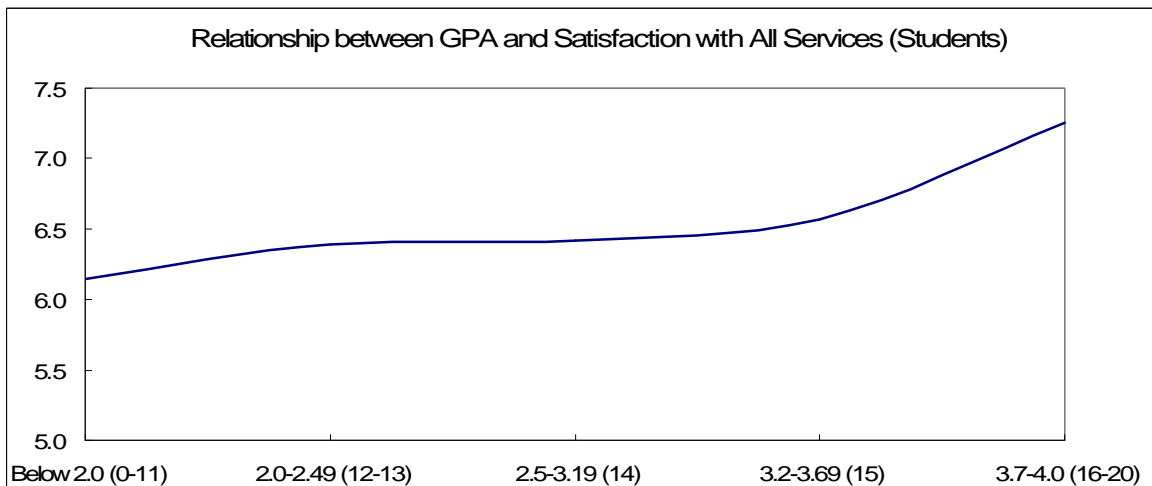
### 3) Relationship between GPA and Satisfaction with All Services (Students)

It was found that students' GPA was positively correlated with the satisfaction with all services ( $r=.12$ ). Those who have earned higher GPAs gave higher ratings. Put it another way, those who rated the services more positively have earned higher GPAs. This may also signify that there may be some relationship among studies, teaching and administrative services.

**Table 26 Relationship between GPA and Satisfaction with All Services (Students)**

GPA	Mean Score
Below 2.0 (0-11)	6.1
2.0-2.49 (12-13)	6.4
2.5-3.19 (14)	6.4
3.2-3.69 (15)	6.6
3.7-4.0 (16-20)	7.3
r	.12*

\* The coefficient is at the .05 significance level.



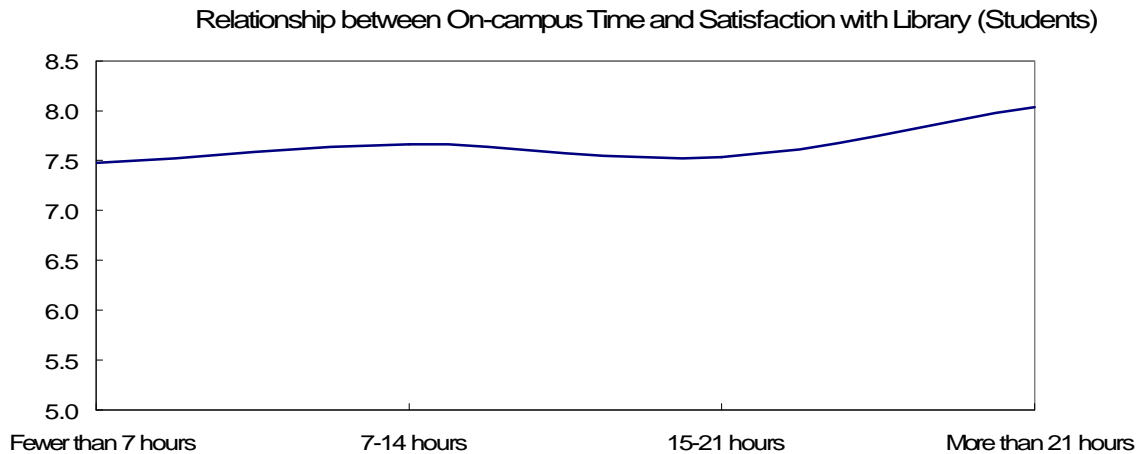
#### 4) Relationship between On-campus Time and Satisfaction with Library (Students)

It was found that the more time students spend in campus, the higher ratings they gave to the services by the library. It is reasonable to infer that those who spend more time in campus devote their time to the library. If so, it may suggest that the longer the library can keep their users in the library, the more satisfaction the users can have or vice versa. We should also note that the library received the highest ratings among all service attributes.

Table 27 Relationship between On-campus Time and Satisfaction with Library (Students)

On-campus time	Mean Score
Fewer than 7 hours	7.5
7-14 hours	7.7
15-21 hours	7.5
More than 21 hours	8.0
r	.1*

\* The coefficient is at the .05 significance level.



5) Relationship between overall satisfaction with all services and specific attributes

Table 28 shows the relationships between the overall satisfaction with all services and the satisfaction with specific attributes by all staff, administrative staff, academic staff and students. The purpose for doing this analysis is to find out the initial importance of each attribute relating to the overall satisfaction with all services. It is not surprising that all attributes are positively correlated with the overall satisfaction question.

The results show that Frontline service is the most important contributor to the general rating with considerably high mean scores across all groups of users.

For administrative staff, AAB, BAF, CSB, GAB and Library (with an  $r > .50$ ) are other major contributors to the overall satisfaction score.

For academic staff, AAB, PUB, PO, BAF, GAB, PR, and CSB (with an  $r > .50$ ) are other major contributors to the overall satisfaction score.

For students, SO, Registry, Treasury, and GAB ((with an  $r > .50$ ) are other major contributors to the overall satisfaction score.

Those attributes with high correlation coefficients and low mean scores are critical areas to be concerned. That an attribute with a high coefficient and a low mean score suggests the important contribution of such attribute to the rating of the overall performance of all service and possible problems should be addressed. However, as explained in the literature review section, joint effects among attributes are undiscovered using bivariate correlation analyses. The next section will deal with the more sophisticated multiple regression analyses in order to provide a more stable measure of the importance of attributes.

	All Staff		Administrative		Academic		Students				
	r	Mean	r	Mean	r	Mean	r	Mean			
<b>Frontline</b>	<b>.83</b>	<b>7.4</b>	<b>Frontline</b>	<b>.74</b>	<b>7.4</b>	<b>Frontline</b>	<b>.89</b>	<b>7.4</b>	<b>Frontline</b>	<b>.63</b>	<b>6.9</b>
<b>AAB</b>	<b>.64</b>	<b>6.9</b>	<b>AAB</b>	<b>.62</b>	<b>6.9</b>	<b>AAB</b>	<b>.68</b>	<b>6.8</b>	<b>SO</b>	<b>.58</b>	<b>6.8</b>
<b>PO</b>	<b>.61</b>	<b>7.1</b>	<b>BAF</b>	<b>.59</b>	<b>6.9</b>	<b>PUB</b>	<b>.63</b>	<b>6.7</b>	<b>REG</b>	<b>.57</b>	<b>6.6</b>
<b>BAF</b>	<b>.58</b>	<b>6.8</b>	<b>CSB</b>	<b>.58</b>	<b>7.0</b>	<b>PO</b>	<b>.61</b>	<b>7.2</b>	<b>Treasury</b>	<b>.57</b>	<b>6.8</b>
<b>GAB</b>	<b>.55</b>	<b>7.3</b>	<b>GAB</b>	<b>.56</b>	<b>7.3</b>	<b>BAF</b>	<b>.61</b>	<b>6.7</b>	<b>GAB</b>	<b>.56</b>	<b>6.7</b>
<b>PUB</b>	<b>.53</b>	<b>6.7</b>	<b>Library</b>	<b>.55</b>	<b>7.3</b>	<b>GAB</b>	<b>.55</b>	<b>7.2</b>	Faculty	.49	6.7
<b>Library</b>	<b>.50</b>	<b>7.3</b>	PO	.46	7.1	<b>PR</b>	<b>.55</b>	<b>6.9</b>	CSB	.46	6.6
CSB	.49	7.2	PR	.44	6.9	<b>CSB</b>	<b>.51</b>	<b>7.3</b>	Library	.38	7.5
PR	.49	6.9	PUB	.42	6.8	Faculty	.48	8.5			
Faculty	.48	8.5				Library	.47	7.3			

- Correlations shown are with the question "**What is your overall level of satisfaction with all services provided by various administrative units of UM?**"
- Correlation (r) is significant at the .01 level (two-tailed). No statistically significant differences of means were found between administrative and academic groups.
- For analysis purpose, a small number of users from the research group were combined with those from the academic group.

### 3. Important Attributes Derived

To find out the important attributes with the inclusion of the joint effects of all attributes in the analysis, we tried to perform multiple regression analysis which is the dominant tool used in the user satisfaction research.

#### Regression Model for Administrative Staff

Table 29 shows the results of the multiple regression analysis for the administrative staff.

It was found that Frontline service is the significant dominant factor contributing to the overall satisfaction with all services in the regression equation (Model 1a). The coefficient of 0.55 from the equation for Frontline service indicates that the predicted overall satisfaction score increases by 0.55 units for a change of 1 unit in the value of Frontline service when the values of other attributes do not change. The regression explained 61% (R-square=.61) of the changes in the dependent variable. In other words, 61% of the changes in the overall satisfaction score can be explained by the Frontline service, mainly, together with other variables in the model.

In the previous section, we found that all attributes are correlated with the overall satisfaction, but it is not the case in the regression model. Why? It is because when the independent variables (the attributes in this case) are correlated with each other (in fact they are), the coefficient for a particular variable depends on the other variables included in the model. When Frontline service is included in the model, other attributes' contribution are already supplied by Frontline service as it is an embedded part of each attribute.

#### Regression Equation of Model 1a

$$S_a = 0.41 + 0.55 \times \text{Frontline Service} + 0.12 \times \text{GAB} + 0.12 \times \text{Library} + 0.11 \times \text{AAB} + 0.08 \times \text{PO} + 0.05 \times \text{BAF} - 0.02 \times \text{PR} - 0.08 \times \text{CSB}$$

(Where S is the predicted overall satisfaction score.)

To change the model by removing Frontline service from the model, we found out that AAB and PO are the significant factors contributing to the overall satisfaction score in the regression equation (Model 1b). However, when this is done, the total variance explained drops from 61% to 48%.

#### Regression Equation of Model 1b

$$S_b = 1.47 + 0.27 \times \text{AAB} + 0.18 \times \text{PO} + 0.19 \times \text{Library} + 0.16 \times \text{BAF} + 0.13 \times \text{GAB} + 0.00 \times \text{CSB} - 0.13 \times \text{PR}$$

Table 29 Multiple Regression of Different Services on Overall Satisfaction with All Services (Administrative Staff)

	Partial regression coefficient	Partial regression coefficient <sup>a</sup>	Mean
Constant	.41	1.47	
Frontline Services	.55 ***		7.4
AAB	.11	.27 **	6.9
Library	.12	.19	7.3
PO	.08	.18 *	7.1
BAF	.05	.16	6.9
GAB	.12	.13	7.3
CSB	-.08	.00	7.0
PR	-.02	-.13	6.9
R-Square (%)	.61 ***	.48 ***	

\* The coefficient is at the .05 significance level; \*\* The coefficient is at the .01 significance level; \*\*\* The coefficient is at the .001 significance level.

<sup>a</sup> The partial regression coefficient when frontline service is removed from the model.

Items marked with green indicate they are OK with their performance and are important attributes contributing to overall satisfaction with all services.

Items marked with yellow indicate they may be potential problems with their performance and are important attributes contributing to overall satisfaction with all services.

### Regression Model for Academic Staff

It was found that Frontline service, AAB and BAF are the significant factors contributing to the overall satisfaction with all services in the regression equation (Model 2a). Again, Frontline service is the dominant factor. The coefficient of 0.78 from the equation for Frontline service indicates that the predicted overall satisfaction score increases by 0.78 units for a change of 1 unit in the value of Frontline service when the values of other attributes do not change. The regression explained 84% (R-square=.84) of the changes in the dependent variable. In other words, 84% of the changes in the overall satisfaction score can be explained by the Frontline service, mainly, together with other variables in the model.

### Regression Equation of Model 2a

$$S_c = 0.49 + 0.78 \times \text{Frontline Service} + 0.16 \times \text{AAB} + 0.12 \times \text{BAF} + 0.05 \times \text{CSB} + 0.05 \times \text{PO} + 0.01 \times \text{Faculty Office} - 0.06 \times \text{PR} - 0.08 \times \text{Library} - 0.08 \times \text{GAB}$$

By the same token, we change the model by removing Frontline service from the model. We then found out that AAB, Faculty Office, CSB and PO are the significant factors contributing to the overall satisfaction score in the regression equation (Model 2b). When the removal of Frontline service is done, the total variance explained drops from 84% to 60%.

### Regression Equation of Model 2b

$$S_d = 0.75 + 0.39 \times \text{AAB} + 0.21 \times \text{Faculty Office} + 0.19 \times \text{CSB} + 0.19 \times \text{PO} + 0.16 \times \text{BAF} + 0.00 \times \text{Library} - 0.05 \times \text{GAB} - 0.19 \times \text{PR}$$

Table 25 Multiple Regression of Different Services on Overall Satisfaction with All Services (Academic Staff)

	Partial regression coefficient	Partial regression coefficient <sup>a</sup>	Mean
Constant	.49	.75	
Frontline Services	.78 ***		7.4
AAB	.16 *	.39 ***	6.8
Faculty Office	.01	.21 *	8.5
CSB	.05	.19 *	7.3
PO	.05	.19 *	7.2
BAF	.12 *	.16	6.7
Library	-.08	.00	7.3
GAB	-.08	-.05	7.2
PR	-.06	-.19	6.9
R-Square(%)	.84 ***	.60 ***	

\* The coefficient is at the .05 significance level; \*\*\* The coefficient is at the .001 significance level.

<sup>a</sup> The partial regression correlation when frontline service is removed from the model.

Items marked with green indicate they are OK with their performance and are important attributes contributing to overall satisfaction with all services.

Items marked with yellow indicate they may be potential problems with their performance and are important attributes contributing to overall satisfaction with all services.

### Regression Model for Students

It was found that Frontline service, SO, GAB and Faculty Office are the significant factors contributing to the overall satisfaction with all services in the regression equation (Model 3a). The differences of the magnitudes among these factors are not as large as those in the previous two models. The coefficient of 0.38 from the equation for Frontline service indicates that the predicted overall satisfaction score increases by 0.38 units for a change of 1 unit in the value of Frontline service when the values of other attributes do not change. The regression explained 53% (R-square=.53) of the changes in the dependent variable. In other words, 53% of the changes in the overall satisfaction score can be explained by the Frontline service, SO, GAB, Faculty Office together with other variables in the model.

### Regression Equation of Model 3a

$$S_e = 0.85 + 0.38 \times \text{Frontline Service} + 0.24 \times \text{GAB} + 0.16 \times \text{SO} + 0.09 \times \text{Faculty Office} + 0.06 \times \text{REG} - 0.01 \times \text{Treasury Office} - 0.04 \times \text{Library} - 0.05 \times \text{CSB}$$



After having changed the model by removing Frontline service from the model, we found out that SO, GAB and Faculty Office are the significant factors contributing to the overall satisfaction score in the regression equation (Model 3b). When the removal of Frontline service is done, the total variance explained drops from 53% to 44%. Unlike those of the previous models for the staff, the differences of total variances in the two student models are as small as 9%, indicating that Frontline service is not a dominant contributing factor.

Regression Equation of Model 3b

$$S_f = 1.85 + 0.21 \times SO + 0.19 \times GAB + 0.11 \times \text{Faculty Office} + .12 \times \text{REG} + 0.12 \times \text{Treasury Office} - 0.04 \times \text{Library} - 0.01 \times \text{CSB}$$

Table 30 Multiple Regression of Different Services on Overall Satisfaction with All Services (Students)			
	Partial regression coefficient	Partial regression coefficient <sup>a</sup>	Mean
Constant	.85	1.85	
Frontline Services	.38 ***		6.9
SO	.16 ***	.21 ***	6.8
GAB	.24 ***	.19 *	6.7
Treasury Office	-.01	.12	6.8
REG	.06	.12	6.6
Faculty Office	.09 *	.11 **	6.7
CSB	-.05	-.01	6.6
Library	-.04	-.04	7.5
R-Square(%)	.53 ***	.44 ***	

\* The coefficient is at the .05 significance level; \*\*\* The coefficient is at the .001 significance level.  
<sup>a</sup> The partial regression correlation when frontline service is removed from the model.

Items marked with yellow indicate they may be potential problems with their performance and are important attributes contributing to overall satisfaction with all services.

Model Summary

Table 31 summarizes the models built above. To conclude, Frontline service is the most important factor contributing to the overall satisfaction score across all models. AAB and PO are the two important factors for the staff models. In addition, Faculty Office and CSB are also significant contributors in the academic model. SO, GAB and Faculty Office contribute significantly to the student models. Any changes of ratings for the performance of these attributes will lead to changes of the user satisfaction scores. Taking the mean score below 7.0 as the critical point, there may be potential problems with AAB, SO, GAB, and Faculty Office as the users are barely slightly satisfied with the services provided by them.

Table 31 Model Summary						
Model	Model 1a	Model 1b	Model 2a	Model 2b	Model 3a	Model 3b
Significant Attributes	Frontline	AAB PO	Frontline AAB BAF	AAB Faculty Office CSB PO	Frontline SO GAB Faculty Office	SO GAB Faculty Office
R-Square	61%	48%	84%	60%	53%	44%

#### 4. Users' Suggestions and Opinions

Although surveys can help researchers to discover and describe the current situation exists and explain why certain phenomenon exist by examining the interrelationship among preplanned variables in a standardized questionnaire and to draw explanatory inferences, it is difficult for them to collect detailed and useful information from the respondents about how the situations exist and about their opinions on a specific issue. Open-ended questions thus used in such cases as supplementary information for deeper investigation.

Several open-ended questions were adopted in the current survey. Due to the sheer amount of the collected data, some of the significant results were selected to present in this section using a cluster technique of grouping the answers upon their similarities and commonalities even their wordings are different and sorting them in descending order based on the response counts. The detailed description of the open-ended answers are included in Appendix I.

It should be noted that those were not listed here do not necessary mean that they are not important enough or should be overlooked. Those items with even only one response count can be meaningful for improvement.

#### **Staff: Any particular comments that you can provide for the improvement of service of UM's administrative units?**

Item	Suggestions/Comments	Response Count
Cleaning service	More frequently cleaning of restrooms and increasing the number of cleaning workers	10
Coordination and communication among units	The top management does not know clearly about the operation at the lower level. Many problems are yet to be solved. Posting pictures of all staff on webpage for easy communication. Administrative reform should be implemented step by step. Staff's extra work and emotion should be concerned due to the reform.	9
Computing support service	Software can't fulfill needs. More transparence of the sequence of replacing computer for academic staff should be made. Response positively to the academic staff's request and opinions. Frontline service attitudes are not good enough	9
Serving attitudes	Client first should be emphasized. All units should not be independent.	8
Photocopy service	More manpower is needed. Notice to the receiver by telephone after the completion of the copies.	5
Car-park lots	Insufficient; Fairness should be made.	4
Sports facilities	Less renting to the outsiders; facilities are seriously insufficient.	4
Office facilities	Obsolete facilities should be replaced; LCD monitors should be installed.	4
Leisure activities	Travel and sports competition are needed in order to build up sense of identity	3
Greening environment	Rebuild the Luso Building 1st floor podium into a garden or exercise path. More chairs, trees, and facilities are needed.	3

**Students: Any other equipment / facilities you would suggest the University to add?**

Item	Suggestions/Comments	Response Count
Computer room	More computer rooms, computers, scanners, printing quota, translation software, PDF network connection, and fax machines are need. Reduce photocopying charge.	171
Sports Complex	More facilities, e.g. a swimming pool. Charges are too high. More fee services are needed.	52
Space for rest	More space for rest and relax is needed	49
Study room	More is needed	47
Canteen	Not enough space; NO choice.	37
Library	Number and range of collections are insufficient. Air-conditioning.	33
Campus facilities	Water Drinking machines, micro-wave, escalators, free telephone booth, ATM, Lockers.	26
Car-park lots		25
Classroom	Multi-media facilities, lighting, space	16
Photocopying machines		14
Snack booth	Varieties of snacks and space are needed	10

**Students: Any particular comments you can provide to the administrative units for their improvement of service?**

Item	Suggestions/Comments	Response Count
Canteen	Serving attitudes should be improved. More varieties of food are needed.	27
Staff's serving attitudes	Improvement of serving attitudes is needed.	21
Cleaning service	Restrooms, classrooms, computer rooms and the podium.	19
Computing service	Short of manpower of CSB; Improper operation of printers; Management and maintenance of computing facilities should be improved.	16
Library	Extending the open hours during holidays; Renewal service by telephone, improvement of serving attitudes, inter-library loans and more computers are needed.	15
Administration procedures	Simplifying the procedure, e.g. application of testimonials.	14
Online support	Poor quality of off-campus dial-up service	12
Procedure of course enrollment	Chaotic; more instructions and assistants are needed.	11

## Conclusion and Recommendations

This survey is intended to answer the following research questions:

- How much are the respondents satisfied with the overall performance by the administrative units?
- How do the respondent rate the performance by each of the administrative unit?
- What are the concerns by the respondents?
- What are the potentially critical areas of user dissatisfaction?
- What demographical factors correlate satisfaction?
- What are the important factors that contribute to the overall satisfaction with all services?
- What are the users' suggestions to or opinions about the services?

First, generally speaking, the users are satisfied with the services providing by all units as a whole. More than three-fourth of the users claimed that the services meet their expectations. While more than half of the staff claimed they sometimes or always recommend the services to others, only one-fourth of students claimed to do so. The results show that students have higher expectations and less satisfied with the services than the staff.

Second, five out of nine administrative units received satisfactory score above 7.0 and the rest four units received scores between 6.0 to 6.9 from the staff users, indicating that the services are OK provided by more than half of the serving attributes and there might be some problems with the services provided by the other four units. Overall speaking, the staff users gave a considerable satisfactory rating to the performance of the specific units.

The student users only rated one of the seven attributes above the score 7.0 and one below the score 6.0, indicating that there might be potential problems with the services. In general, the student users underrated the service performance than the staff did.

Third, taking the rating of each service item and the opinions found form the open-ended questions into account, the staff users are more likely to be dissatisfied with and to be concerned about the facilities of Sport Complex, office space, range of books in the library, recreational areas and car-park lots. They urge quick improvement from the areas like cleaning service, inter-unit coordination and communication, computing support service, the serving attitudes of the frontline staff, procurement, photocopying service, on-campus clinic, class-room booking, staff activities and so forth.

The student users are more likely to be dissatisfied with and to be concerned about the performance of computing equipment in computer room, Sports Complex facilities, intranet accessibility off-campus, facilities in canteen, quantity of computing equipment in computer rooms, recreational areas, procedure of locker renting, course enrollment, quietness in computer rooms, car-park lots, school clinic service, sufficiency of photocopying services, and sport activities. They claimed immediate improvement from the areas like computer rooms, canteen, photocopying, renting Sports Complex facilities, the serving attitudes of the staff, cleaning service, course enrollment procedure, information about the university and so on.

Fourth, the year of service of the staff is negatively correlated with the overall satisfaction with all services and the performance rating of the Personnel Office though the strength of association is weak. Similarly, there is a negative correlation between the year of study of the students and their overall satisfaction with all services. It seems that the more years they work for or study in the university, the less they are satisfied with the services. A possible explanation is that those seniors set higher expectations than those juniors (as supported from a cross-tab analysis of the data which is not presented in the report).

Students' GPA is positively correlated with the satisfaction with all services, suggesting that those with higher GPAs be more likely to acknowledge administration performance; in turn, that better service performance would benefit students study performance.

Students' on-campus time is positively correlated with their rating on the library performance, indicating that a better library service may help to keep students staying more in campus. Put it another way, the more time they devote in campus, the more satisfaction they have with the library.

Fifth, instead of tapping the users' direct claim of the importance of the service attributes, multiple regression analyses can help to statistically derive the importance among all attributes on the overall satisfaction with all services. Frontline service was found to be the most important factor contributing to the overall satisfaction score across all models. AAB and PO are the two important factors for the staff models. Faculty Office and CSB are also significant contributors in the academic model. SO, GAB and Faculty Office contribute significantly to the student models. Taking the mean score below 7.0 as the critical point, there may be potential problems with AAB, SO, GAB, and Faculty Office as the users are slightly satisfied with the services provided by them.

## **Limitations and Recommendations**

This survey is the first attempt to study the user satisfaction at the university using the longitudinal research approach. It is acknowledged that one of the advantages of survey research is its replicability. Data collected from longitudinal research approach can be used for future comparison and trend analyses. Under the circumstances of lack of precedents and benchmark statistics, a cautious interpretation approach is therefore advocated for the first survey of this kind at our university.

First, as explained in the Methodology, mean scores should not be interpreted alone. Attitude questions with a scale of 5, 7 or 10 points normally turn out with ratings with small differences in statistics. It would be wrong to make any conclusions about the ratings of differences without considering the standard deviation or the standard error of the mean.

Second, we should bear in mind that a specific service item with low score may not necessary lead to a low score of the overall rating of the service attribute as it has shown in many cases that the overall ratings of the service attribute are higher than the individual items. This suggests that when we look at the overall scores, we should not ignore the scores of individual items. We may overlook that there is probably a potential problem with the service reflected from the individual item due to our complacency with the high overall score.

Third, the model of the multiple regression analysis for the administrative staff look somewhat rare that AAB and PO are the two significant factors. It is understandable that Personnel Office is one of the important contributors to the overall satisfaction score as it deals with the administrative staff very frequently. It is difficult, however, to explain the contribution from AAB as it is less exposed to the administrative staff. Some possible reasons for such a statistical outcome are: 1) the ambiguity of the function and name of AAB may yield different perceptions by the respondents; 2) response order effect may occur because the question for rating the performance of AAB is placed ahead of other attributes; 3) overall **satisfaction** may not be adequately predicted by **performance** rating as these two concepts were used in the questionnaires; and 4) unknown factors exist due to lack of theoretical base.

In an ideal survey, each unit's satisfaction is measured and therefore can be predicted by its individual items using factor analysis and multiple regression analysis. Unfortunately, with such a large scale of survey including every service unit of the university, it is unrealistic to cover all satisfaction questions for each unit. For example, in this survey, we did not clearly define what constitutes Frontline service and did not asked about each unit's frontline services. Literally, Frontline service is a very general term which can be linked to the staff's communication skills, service efficiency and effectiveness, service attitudes, the outlet environment, and other related factors. A complete inclusion of all these elements is almost impossible. In addition, interdependence among service attributes inevitably exist. Therefore, reconceptualization is needed for future surveys.

Fourth, technical problems must be addressed regarding return rates and sampling frame. Although the census-like sampling method finally yielded a high overall return rate of 73% in the staff sample, several units generated a disappointing rate, say 30% for example. When we interpret the results for these units with low return rate, we must be more cautious and conservative. For the student survey, students' contact phone numbers should be updated each semester or academic year in order to facilitate a full sampling frame and efficient interviews. Promisingly, a very high response rate of 91% was achieved in the student sample which can help to increase our confidence in generalization.

Fifth, the results, analyses and explanations depicted in this report are not exhaustive. An SPSS dataset has been prepared for those interested units/parties to further investigate the relationship among variables upon their own requirements and interest.

Finally, this survey may serve the benchmark for future similar surveys for our university. Future comparison and trend analysis are possible based on the longitudinal research approach. Though surveys themselves cannot give every possible answer to us, they do help us to uncover and understand the areas and situations that we did not know before with rich information from the respondents. One should note that an ad hoc explanation of social phenomenon other than theory-driven explanations, user satisfaction in particular, should become cogent only if it is repeatedly validated.



## References

American Association for Public Opinion Research (2005). AAPOR3. Retrieved on March 02, 2005 at [http://www.aapor.org/default.asp?page=survey\\_methods/standards\\_and\\_best\\_practices](http://www.aapor.org/default.asp?page=survey_methods/standards_and_best_practices).




























Hernon, P. & Whitman, J. (2001). *Delivering Satisfaction and Service Quality: A Customer-Based Approach for Libraries*. American Library Association.

McDaniel, C. & Gates, R. (1999). *Contemporary Marketing Research*, 4<sup>th</sup> ed. South-Western College Publishing.

Norusis, M. (2000). *SPSS 10.0 Guide to Data Analysis*. New Jersey: SPSS.

Transportation Research Board, National Research Council (1999). *A Handbook for Measuring Customer Satisfaction and Service Quality*. Washington, D.C.: National Academy Press.

## Appendix I Performance Ratings for Administrative Units (Staff Sample)

Performance Ratings for Administrative Units (Staff)						
Q	Units	N	Mean	Std. Error of Mean	Std. Deviation	Coding
<b>AAB</b>						
f1	<b>Overall performance</b>	<b>343</b>	<b>6.9</b>	<b>0.1</b>	<b>1.6</b>	
e8	Classroom allocation	330	6.5	0.1	1.9	
<b>BAF</b>						
f2	<b>Overall performance</b>	<b>414</b>	<b>6.8</b>	<b>0.1</b>	<b>1.7</b>	
c2	Payment procedure	296	6.6	0.1	1.8	
c1	Procurement procedure	307	6.0	0.1	2.0	
<b>CSB</b>						
f3	<b>Overall performance</b>	<b>469</b>	<b>7.2</b>	<b>0.1</b>	<b>1.7</b>	
e11	IT Help Desk support service for computing equipment	443	7.0	0.1	1.8	
b4	Application software provided for general purposes	454	6.7	0.1	1.8	
b3	Computer equipment in offices	462	6.6	0.1	1.9	
b5	Intranet accessibility off-campus	370	6.5	0.1	2.0	
<b>GAB</b>						
f4	<b>Overall performance</b>	<b>441</b>	<b>7.3</b>	<b>0.1</b>	<b>1.5</b>	
e1	Photocopying service	386	7.2	0.1	1.9	
e2	Security service	445	7.2	0.1	1.5	
e7	Maintenance service	414	7.2	0.1	1.5	
d7	Hygiene in your own office/working place	477	7.1	0.1	1.6	
c6	Procedure for booking car/school bus	249	7.1	0.1	1.6	
e5	Hostel management	122	7.0	0.2	1.7	
b2	Classroom facilities	415	6.9	0.1	1.7	
e3	Cleaning service	475	6.9	0.1	1.7	
d2	Hygiene in classrooms	407	6.9	0.1	1.7	
d1	Air-conditioning in classrooms	409	6.8	0.1	1.9	
d6	Air-conditioning in your own office/working place	479	6.8	0.1	2.1	
d4	Hygiene of resting areas on campus	424	6.6	0.1	1.8	
b11	Facilities in staff hostels (for campus residents only)	51	6.6	0.3	2.3	
b12	Signposts on campus	437	6.4	0.1	1.8	
b9	Facilities in washrooms (e.g. toilet tissue, hanger, hand dryer... etc)	487	6.4	0.1	2.0	
d3	Hygiene in washrooms	482	6.2	0.1	2.0	

























































b1	Sports Complex facilities	276	5.9	0.1	2.0	
b10	Office space	474	5.9	0.1	2.2	
b6	Recreational areas	420	5.2	0.1	2.1	
b8	Car-park lots	341	4.9	0.1	2.3	
<b>Library</b>						
f5	<b>Overall performance</b>	<b>435</b>	<b>7.3</b>	<b>0.1</b>	<b>1.5</b>	
c3	Procedure for loaning/returning books, or other circulation services in Library	401	7.4	0.1	1.5	
d5	Quietness in Library	407	7.2	0.1	1.8	
e6	Library orientation	215	7.1	0.1	1.6	
b7	Range of books in Library	414	5.5	0.1	1.9	
<b>PO</b>						
f6	<b>Overall performance</b>	<b>462</b>	<b>7.1</b>	<b>0.1</b>	<b>1.7</b>	
e9	Staff training	337	6.6	0.1	1.8	
c4	Confidentiality of staff records	341	6.6	0.1	2.0	
e4	Staff recruitment service	236	6.4	0.1	1.9	
e10	Staff activities organizing	356	6.2	0.1	2.1	
<b>PR</b>						

f7	<b>Overall performance</b>	<b>337</b>	<b>6.9</b>	<b>0.1</b>	<b>1.6</b>	
c5	Procedure for souvenir requisition and distribution	214	6.7	0.1	1.8	
e12	Event/ activity/ seminar arrangement and supporting	292	6.6	0.1	1.9	
<b>PUB</b>						
f8	<b>Overall performance</b>	<b>175</b>	<b>6.7</b>	<b>0.1</b>	<b>1.8</b>	
<b>Academic General Office</b>						
g13	<b>Overall performance</b>	<b>235</b>	<b>8.5</b>	<b>0.1</b>	<b>1.4</b>	
	CPU <sup>a</sup>	20	9.4	0.2	0.7	
	ELC	11	9.1	0.4	1.2	
	FST	58	8.7	0.1	1.0	
	FLL	18	8.6	0.4	1.6	
	CMS	3	8.3	0.3	0.6	
	FBA	71	8.3	0.2	1.6	
	FSH	26	8.2	0.3	1.4	
	FED	27	8.0	0.3	1.3	
	CCS	N/A				
<sup>a</sup> No statistically significant differences among faculties						

Q=Question number

## Appendix II Performance Ratings for Administrative Units (Student Sample)

Performance Ratings for Administrative Units (Students)						
Q	Units	N	Mean	Std. Error of Mean	Std. Deviation	Coding
<b>REG</b>						
f1	<b>Overall performance</b>	<b>501</b>	<b>6.6</b>	<b>0.1</b>	<b>1.5</b>	
c5	Procedure of registration (New students only)	154	6.6	0.1	1.5	
c1	Procedure for applying testimonials and transcripts	367	6.3	0.1	1.5	
e11	Classroom allocation	501	6.1	0.2	4.0	
<b>SO</b>						
f2	<b>Overall performance</b>	<b>463</b>	<b>6.8</b>	<b>0.1</b>	<b>1.5</b>	
e5	Student hostel management	26	6.5	0.4	2.1	
e7	Student counseling service	270	6.1	0.1	1.6	
e9	Career guidance service	241	6.0	0.1	1.7	
c6	Procedure of locker renting	374	5.7	0.1	1.6	
e12	Sport activities	329	5.5	0.1	1.8	
<b>Treasury Office</b>						
f3	<b>Overall performance</b>	<b>483</b>	<b>6.8</b>	<b>0.1</b>	<b>1.4</b>	
b13	E-purse services	419	6.8	0.1	1.5	
c2	Procedure for payment	490	6.6	0.1	1.5	
e3	Sufficiency of current payment channels	490	6.4	0.1	1.5	
<b>CSB</b>						
f4	<b>Overall performance</b>	<b>481</b>	<b>6.6</b>	<b>0.1</b>	<b>1.4</b>	
b5	Functions provided in SIWeb	479	7.1	0.2	3.9	
b4c	Application software provided for course work	482	6.6	0.1	1.5	
e6	Supporting service in computer rooms	461	6.1	0.1	1.6	
b4b	Performance of computing equipment in computer room	492	5.9	0.1	1.7	
b6	Intranet accessibility off-campus	404	5.8	0.1	1.9	
b4a	Quantity of computing equipment in computer rooms	495	5.8	0.1	1.9	
d7	Quietness in computer rooms	488	5.7	0.1	1.7	
c4	Course enrollment	472	5.7	0.1	1.8	
<b>GAB</b>						
f5	<b>Overall performance</b>	<b>403</b>	<b>6.7</b>	<b>0.1</b>	<b>1.2</b>	
d2	Hygiene in classrooms	508	7.2	0.1	1.4	
d6	Hygiene in student hostels (for hostel students only)	25	7.1	0.3	1.7	
b2	Classroom facilities	507	6.9	0.1	1.4	
b9	Facilities in washrooms	508	6.8	0.1	1.5	
d4	Hygiene of resting areas on campus	499	6.8	0.1	1.3	
b3	Student hostels and facilities (For hostel students only)	25	6.6	0.4	1.8	
e2	Satisfaction of security services	446	6.4	0.1	1.5	
d3	Hygiene in washrooms	508	6.4	0.1	1.6	
e13	Campus building maintenance service	477	6.4	0.1	1.4	
d1	Air-condition in classrooms	507	6.3	0.1	1.5	

b10	Signposts on campus	497	6.2	0.1	1.6	
b12	Space for study room/study area	470	6.0	0.1	1.7	
b1	Sports Complex facilities	341	5.8	0.1	1.6	
b11	Facilities in canteen	490	5.8	0.1	1.7	
e8	School clinic service	211	5.8	0.1	1.8	
b7	Recreational areas	499	5.6	0.1	1.7	
e1	Sufficiency of photocopying services	478	5.5	0.1	1.9	
<b>Library</b>						
f6	<b>Overall performance</b>	<b>502</b>	<b>7.5</b>	<b>0.1</b>	<b>1.2</b>	
d5	Quietness in Library	501	7.7	0.1	1.4	
c3	Procedure for loaning/returning books	492	7.5	0.1	1.2	
e10	Assistance accessibility in Library	477	7.0	0.1	1.4	
b8	Range of books in Library	501	6.8	0.1	1.8	
e4	Library use & orientation course	402	6.6	0.1	1.3	
<b>Faculty Office</b>						
f7	<b>Overall performance</b>	<b>492</b>	<b>6.7</b>	<b>0.1</b>	<b>1.6</b>	
	CPU <sup>a</sup>	22	7.4	0.2	1.0	
	FED	63	7.3	0.1	1.1	
	FST	89	7.0	0.2	1.5	
	FSH	127	6.7	0.1	1.5	
	FBA	149	6.5	0.1	1.7	
	FLL	42	5.9	0.3	2.2	

<sup>a</sup> The mean score of FLL is statistically significant less than those of CPU, FED, and FST.

## Appendix III Return Rate of the Staff Sample

Return Rate of the User Satisfaction Survey 2004 - Staff

Dept/Unit	Academic Staff					Admin. Staff					Total	
	Chinese	English	Total	Return	Return Rate	Chinese	English	Total	Return	Return Rate	Return	Return Rate
AAB						2	0					
REG						12	0	22	22	100%	22	100%
SO						8	0					
BAF						3	1					
AC						9	0	33	30	91%	30	91%
TRE						9	1					
PCT						10	0					
CSB						31	2	33	23	70%	23	70%
GAB						3	0					
CS						48	3	92	69	75%	69	75%
RE						37	1					
LIB						32	1	33	20	61%	20	61%
PO						10	2	12	9	75%	9	75%
PRO						7	0	7	7	100%	7	100%
PUB						0	1	1	1	100%	1	100%
RTO/UCO						18	1	19	12	63%	12	63%
FBA		71	71	71	100%	0	10	10	9	90%	80	99%
FED	32		32	28	88%	8	0	8	7	88%	35	88%
FLL	7	23	30	19	63%	7	2	9	6	67%	25	64%
FSH	76	33	109	29	27%	15	0	15	8	53%	37	30%
FST	61	4	65	60	92%	32	2	34	28	82%	88	89%
CPU	23	9	32	20	63%	3	0	3	3	100%	23	66%
CCS		1	1	1	100%	0	4	4	4	100%	5	100%
CMS		4	4	4	100%	2	0	2	2	100%	6	100%
ELC		16	16	11	69%	0	3	3	3	100%	14	74%
<b>Subtotal</b>	199	161	360	243	67.5%	306	34	340	263	77.4%	506	
Unidentified				1					4		5	

<b>Total</b>	<b>199</b>	<b>161</b>	<b>360</b>	<b>244</b>	<b>67.8%</b>	<b>306</b>	<b>34</b>	<b>340</b>	<b>267</b>	<b>78.5%</b>	<b>511</b>	<b>73%</b>
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\* The return rate of the survey is 73%, of which the return rate from the administration staff is 78.5%, the academic staff is 67.8%.

\* Among all units, the highest return rate is 100% and the lowest is 30%.

\* In the sample, five out of 511 cases did not provide answers of their respective units, among which four come from the administration unit while one comes from the academic unit.

\* Of the total 244 cases in the academic/research sample, 221 are from the five academic units (FBA, FED, FLL, FSH, FST, & CPU).





	c.) Application software provided for course work	[ ]
5	Functions provided in Student Information Web Services (SIWeb) Student Information Web Service (SIWeb)	[ ]
6	Intranet accessibility off-campus	[ ]
7	Recreational areas	[ ]
8	Range of books in Library	[ ]
9	Facilities in washrooms	[ ]
10	Signposts on campus	[ ]
11	Facilities in canteen	[ ]
12	Space for study room/study area	[ ]
13	E-purse services	[ ]
14	Any other equipment / facilities you would suggest the University to add, please state:	

C. Please rate about the **Current UM Operation Procedures** in the following areas:

1	Procedure for applying testimonials and transcripts	[ ]
2	Procedure for payment (e.g. tuition fee, hostel charges and e-purse replenishment)	[ ]
3	Procedure for loaning/returning books, or other circulation services in Library	[ ]
4	Course enrollment	[ ]
5	Procedure of registration (New students only)	[ ]
6	Procedure of locker renting	[ ]

D. Please rate about **Current UM Environment Condition** in the following areas:

1	Air-condition in classrooms	[ ]
2	Hygiene in classrooms	[ ]
3	Hygiene in washrooms	[ ]
4	Hygiene of resting areas on campus	[ ]
5	Quietness in Library	[ ]
6	Hygiene in student hostels (for hostel students only)	[ ]
7	Quietness in computer rooms	[ ]

E. Please rate about the **Service Quality** in the following areas:

1	Sufficiency of photocopying services	[ ]
2	Satisfaction of security services	[ ]
3	Sufficiency of current payment channels (e.g. tuition fee and miscellaneous fee)	[ ]
4	Library use & orientation course	[ ]

5	Student hostel management	[ ]
6	Supporting service in computer rooms	[ ]
7	Student counseling service	[ ]
8	School clinic service	[ ]
9	Career guidance service	[ ]
10	Assistance accessibility in Library	[ ]
11	Classroom allocation	[ ]
12	Sport activities	[ ]
13	Campus building maintenance service	[ ]

F. Please rate about your **Overall Satisfaction** in the following areas:

1	Overall performance of Registry (REG)	[ ]
2	Overall performance of Student Affairs Office (SO)	[ ]
3	Overall performance of Treasury Office	[ ]
4	Overall performance of Computer Service Bureau (CSB including Academic Computing Service & Information Management Service)	[ ]
5	Overall performance of General Administration Bureau (GAB including Central Service and Real Estate & Security Office)	[ ]
6	Overall performance of Library	[ ]
7	Overall performance of the general office of your faculty/academic unit	[ ]

G. Please give your opinion to the below questions:

1. Please select the service item(s) you always use. (You may select more than one answer)

Photocopying       Computer support       Cleaning       Laundry  
 Student counseling       Maintenance       Student hostel       Canteen service  
 E-purse value adding       Career guidance       School clinic       Security consultation  
 Library book loaning/returning & other circulation service       Event/Seminar organizing and supporting service  
 Library orientation and assistance       Sports complex venue rental  
 Applying testimonials/transcripts       Others, please state: \_\_\_\_\_

2. In your opinion, which service item(s) need(s) to be improved? (You may select more than one answer)

Photocopying       Computer support       Cleaning       Laundry  
 Student counseling       Maintenance       Student hostel       Canteen service  
 E-purse value adding       Career guidance       School clinic       Security consultation  
 Library book loaning/returning & other circulation service       Event/Seminar organizing and supporting service  
 Library orientation and assistance       Sports complex venue rental  
 Applying testimonials/transcripts       Others, please state: \_\_\_\_\_

3. Are there any other items should be added to the Performance Pledge of the general office of your faculty/academic unit? Please specify:

4. Any particular comments you can provide to the administrative units for their improvement of service:

**Personal Data:**

Residential Place:    Home    Hostel    Rental Apartment

How many hours do you spend on studying weekly other than in class?

Fewer than 7 hours     7-14 hours     15-21 hours     More than 21 hours

How many hours do you spend on campus weekly other than in class?

Fewer than 7 hours     7-14 hours     15-21 hours     More than 21 hours

How often do you browse the University's homepage for information?

Never     Seldom     Several times a month     Several times a week  
 Every day     Hard to say/ Don't know

**\* Information of the below items will be provided by Registry in advance.**

Gender:    Male    Female

Year of Study (1 to 4): Year 1    Year 2    Year 3    Year 4

Type of Study:    Day time student    Evening class student

Academic Unit:    FBA    FED    FLL    FSH    FST    CPU

Student from:    Local    Mainland China    Hong Kong    Other, please  
state:\_\_\_\_\_

Your current GPA is:

Below 2.00 (0-11)     Cumulative GPA of 2.00 to 2.49 (12-13)  
 Cumulative GPA of 2.50 to 3.19 (14)  Cumulative GPA of 3.20 to 3.69 (15 - Dean's Hon. List)   
Cumulative GPA of 3.70 to 4.00 (16-20)

~~ *Thank you very much!* ~~



(The CATI version of this questionnaire is different in style, format and wordings)

# 澳門大學

Student

## 對服務滿意度之問卷調查 (2004)

澳門大學而家做緊一項全校性的問卷調查，我?? 主要目標係收集教職員同學生對 “澳大行政和設施管理服務” 的滿意程度和需要，同埋將按照收集到? 資料去計劃澳大行政管理第日? 發展方向，希望可提供更佳的服务。

回答問題? 指引:

評分題：請用 1 至 10 分? 評定落面? 題目，其中：

- ◆ 1 分表示最低分 或 非常不滿意；
- ◆ 5 分表示一般
- ◆ 10 分表示最高分 或 非常滿意；
- ◆ 亦可回答 88 = “未曾用過/未有使用經驗” 或 99 = “無意見/唔想俾意見”

選擇題：請係圈內加 “X”

A. 請評定落面? 普通題題目：

1.	對於澳大唔同? 行政單位所提供 D 服務? 整體表現 (例如：圖書館，電腦室管理，體育館，繳費，註冊，清潔，保安，宿舍管理等等)，您會俾幾多分？	[ ]
2.	對於澳大前台接待服務 D 整體表現 (例如：圖書館，電腦室管理，體育館，繳費，註冊，清潔，保安等等)，您滿唔滿意呀？	[ ]
3.	請指出大學的整體服務質素未能達到、剛好達到還是超出您的預期呢？ 1. 完全未能達到預期 2. 未能達到預期 3. 稍為未能達到預期 4. 剛好達到預期 5. 稍為超出預期 6. 超出預期 7. 完全超出預期 8. 無意見	
4.	您有冇係其他同學或朋友面前稱讚及介紹佢地使用澳大? 行政服務呢？ <input type="radio"/> 從不 <input type="radio"/> 甚少 <input type="radio"/> 有時 <input type="radio"/> 經常 <input type="radio"/> 好難講	
5.	總?? 講，您同唔同意澳大行政單位 D 整體表現係度改善緊？ <input type="radio"/> 非常不同意 <input type="radio"/> 不同意 <input type="radio"/> 一般 <input type="radio"/> 同意 <input type="radio"/> 非常同意 <input type="radio"/> 無意見	

B. 請評定落面有關澳大而家? 設備或者設施? 題目：

1.	體育設施	[ ]
2.	課室設施	[ ]
3.	學生宿舍及其設施 (只供宿生作答)	[ ]
4.	以下落? 是要對電腦室? 電腦設備作評分： d.) 對於電腦數量，你? 評分係幾多? (呢題唔包埋電腦? 運行速度同質素)	[ ]
	e.) 電腦設備? 性能表現點呀？	[ ]
	f.) 成日用? 應用軟件呢？	[ ]
5.	學生資訊網頁(SI Web)服務? 功能	[ ]
6.	從校外連網到校園網絡容唔容易呀	[ ]
7.	休憩空間	[ ]
8.	圖書館藏書? 種類	[ ]
9.	洗手間? 設備	[ ]
10.	校內指示牌	[ ]

11.	餐廳設施	[ ]
12.	溫習室或溫習區空間	[ ]
13.	電子錢包服務	[ ]
14.	有冇其他任何設備或者設施您覺得澳大應該增加多 D ? 呢? 如果有, 可唔可以舉例講一講:	

C. 請評定落面有關澳大而家? 行政程序? 題目:

1.	申請? 有關證明書或成績單? D 程序	[ ]
2.	付款程序, 好似交學費, 宿費, 電子錢包增值等	[ ]
3.	係圖書館借書還書, 及其他櫃台流通服務? 程序	[ ]
4.	選科? 程序	[ ]
5.	新生註冊程序 (只需新生回答)	[ ]
6.	租借學校入便 D (locker)儲物箱? 程序	[ ]

D. 請評定落面有關澳大而家? 環境情況? 題目:

1.	整體課室入便 D 空氣調節	[ ]
2.	整體課室入便 D 衛生情況	[ ]
3.	整體? 所 D 衛生情況	[ ]
4.	校內休閒地方? 衛生	[ ]
5.	圖書館入便 D 安靜情況	[ ]
6.	學生宿舍入便 D 衛生情況 (只供宿生評分)	[ ]
7.	電腦室入便 D 安靜情況	[ ]

E. 請評定落面有關服務質素? 題目:

1.	提供俾學生? 影印服務夠唔夠	[ ]
2.	保安服務? 水準滿唔滿意	[ ]
3.	而家澳大所提供? 各種付款方式夠唔夠, 好似交學費同埋其他雜費	[ ]
4.	您覺得圖書館提供? “使用及導覽課程” 係咪有用	[ ]
5.	學生宿舍? 管理質素點樣	[ ]
6.	電腦室入便 D 支援服務	[ ]
7.	學生輔導服務	[ ]
8.	校內醫療室? 服務	[ ]
9.	就業指導服務	[ ]
11.	圖書館? 查詢服務及協助夠唔夠	[ ]
12.	對課室分配係唔係覺得適當呢	[ ]
13.	體育活動安排	[ ]
14.	對校園維修? 水準	[ ]

F. 請評定對澳大各單位之整體滿意度? 題目:

1.	學術事務部 (包括教務處及學生事務處)? 整體表現	[ ]
2.	會計暨出納部 (包括會計組、出納組及採購組)? 整體表現	[ ]
3.	電腦部 (包括電腦教學組及電腦資訊管理組)? 整體表現	[ ]
4.	總務部 (包括文書暨總務組及工程及保安組)? 整體表現	[ ]
5.	圖書館? 整體表現	[ ]
6.	對您所屬學術單位行政辦公室? 整體表現	[ ]

G. 請對下列問題俾 D 意見:

1. 您最常使用的服務有邊 D? (可多選)			
<input type="radio"/> 影印服務	<input type="radio"/> 電腦支援	<input type="radio"/> 清潔服務	<input type="radio"/> 洗衣服務
<input type="radio"/> 學生輔導	<input type="radio"/> 維修服務	<input type="radio"/> 學生宿舍	<input type="radio"/> 餐廳服務
<input type="radio"/> 電子錢包增值服務	<input type="radio"/> 就業諮詢服務	<input type="radio"/> 學校醫療室	<input type="radio"/> 保安諮詢服務
<input type="radio"/> 圖書館借還書及其它流通服務		<input type="radio"/> 活動/? 討會之策劃及支援服務	
<input type="radio"/> 圖書館導覽及諮詢服務		<input type="radio"/> 體育館租場服務	
<input type="radio"/> 申請? 有關證明書或成績單服務		<input type="radio"/> 其他, 請說明: _____	
2. 您認為邊 D 服務需要加以改善? (可多選)			
<input type="radio"/> 影印服務	<input type="radio"/> 電腦支援	<input type="radio"/> 清潔服務	<input type="radio"/> 洗衣服務
<input type="radio"/> 學生輔導	<input type="radio"/> 維修服務	<input type="radio"/> 學生宿舍	<input type="radio"/> 餐廳服務
<input type="radio"/> 電子錢包增值服務	<input type="radio"/> 就業諮詢服務	<input type="radio"/> 學校醫療室	<input type="radio"/> 保安諮詢服務
<input type="radio"/> 圖書館借還書及其它流通服務		<input type="radio"/> 活動/? 討會之策劃及支援服務	
<input type="radio"/> 圖書館導覽及諮詢服務		<input type="radio"/> 體育館租場服務	
<input type="radio"/> 申請? 有關證明書或成績單服務		<input type="radio"/> 其他, 請說明: _____	
3. 對於您所屬? 學術單位行政辦公室所作的服務承諾入便, 有冇其他項目您認為應該增加? 呢? 若有, 請說明:			
4. 您有冇任何意見可以提供俾本校? 行政單位等佢? 用? 作服務的改善? 呢?			

**個人資料:**

居住地點:     家中             宿舍             租賃地方

除返學之外, 請問您平均每星期花係學習? 時間有幾多?

少於 7 小時         7-14 小時         15-21 小時         超過 21 小時

除返學之外, 請問您平均每星期留係學校? 時間有幾多?

少於 7 小時         7-14 小時         15-21 小時         超過 21 小時

你通常幾耐先至會瀏覽? 澳大? 網頁用? 搵料? 呢:

永不     甚少     一個月數次     一周數次     每天     好難講/不知道

**\*下列資料由註冊處提供**

性別:                     男                     女  
 學習年期:             一年級             二年級             三年級             四年級  
 學習種類:             日間學生         夜間學生  
 所屬學術部門:       FBA             FED             FLL             FSH  
                                   FST             CPU  
 來自:                     本地             中國內地         香港             其他, 請說明:

你目前的 GPA 是:

- 低於 2.00 (0-11)
- 累積至 2.00 - 2.49 (12-13)
- 累積至 2.50 - 3.19 (14)
- 累積至 3.20 - 3.69 (15 - 院長榮譽榜)
- 累積至 3.70 - 4.00 (16-20)

(The original version of this questionnaire is different in style and format.)

## University of Macau User Satisfaction Survey (2004)



This survey aims at collecting opinions from the entire University community, trying to find out how far are the staff members and students satisfied with various facilities of the University and services provided by various administrative units. Identifying gaps in these services will help the University management set a direction for future development and provide better services for the University community.

Instructions:

**Questions for rating:** Please circle your rating, where -

- ◆ 1 signifies the lowest rating or very dissatisfied;
- ◆ 5 signifies neutral;
- ◆ 10 signifies the highest or very satisfied;
- ◆ 88 means "Not applicable" while 99 means "No comment".

**Multiple Choice questions:** Please put a "X" inside the circle.

A. Please rate the below **General Questions** with the aforesaid instructions :

								Not applicable	No comment	
1	What is your overall level of satisfaction with all services provided by various administrative units of UM?	1	2	3	4	5	6	7	88	99
				8	9	10				
2	What is your overall level of satisfaction with all frontline services?	1	2	3	4	5	6	7	88	99
				8	9	10				
3	Please indicate whether our service fall short of, exactly meet, or exceed your expectations: Fall Short of Expectation                      Exactly Meet Expectations                      Exceed Expectations -3                      -2                      -1                      0                      +1                      +2                      +3									
4	How often do you praise / recommend UM's administrative services to others? <input type="radio"/> Never <input type="radio"/> Seldom <input type="radio"/> Sometimes <input type="radio"/> Always <input type="radio"/> Hard to say									
5	In general, the overall performance of the administrative units of UM is improving. <input type="radio"/> Strongly disagree <input type="radio"/> Disagree <input type="radio"/> Neutral <input type="radio"/> Agree <input type="radio"/> Strongly agree <input type="radio"/> No comment									

B. Please rate about **Current UM Equipment and Facilities** in the following areas :

									Not applicable	No comment
1	Sports Complex facilities	1	2	3	4	5	6		88	99
				7	8	9	10			
2	Classroom facilities	1	2	3	4	5	6		88	99
				7	8	9	10			
3	Computer equipment in offices	1	2	3	4	5	6		88	99
				7	8	9	10			
4	Application software provided for general purposes	1	2	3	4	5	6		88	99
				7	8	9	10			
5	Intranet accessibility off-campus	1	2	3	4	5	6		88	99
				7	8	9	10			
6	Recreational areas	1	2	3	4	5	6		88	99
				7	8	9	10			
7	Range of books in Library	1	2	3	4	5	6		88	99
				7	8	9	10			
8	Car-park lots	1	2	3	4	5	6		88	99
				7	8	9	10			
9	Facilities in washrooms (e.g. toilet tissue, hanger, hand dryer... etc)	1	2	3	4	5	6		88	99
				7	8	9	10			
10	Office space	1	2	3	4	5	6		88	99
				7	8	9	10			



11	Facilities in staff hostels (for campus residents only)	1	2	3	4	5	6	88	99
		7	8	9	10				
12	Signposts on campus	1	2	3	4	5	6	88	99
		7	8	9	10				

C. Please rate about Current UM Operation Procedures in the following areas:

								Not applicable	No comment
1	Procurement procedure	1	2	3	4	5	6	88	99
		7	8	9	10				
2	Payment procedure	1	2	3	4	5	6	88	99
		7	8	9	10				
3	Procedure for loaning/returning books, or other circulation services in Library	1	2	3	4	5	6	88	99
		7	8	9	10				
4	Confidentiality of staff records	1	2	3	4	5	6	88	99
		7	8	9	10				
5	Procedure for souvenir requisition and distribution	1	2	3	4	5	6	88	99
		7	8	9	10				
6	Procedure for booking car/school bus	1	2	3	4	5	6	88	99
		7	8	9	10				

D. Please rate about Current UM Environment Condition in the following areas:

								Not applicable	No comment
1	Air-conditioning in classrooms	1	2	3	4	5	6	88	99
		7	8	9	10				
2	Hygiene in classrooms	1	2	3	4	5	6	88	99
		7	8	9	10				
3	Hygiene in washrooms	1	2	3	4	5	6	88	99
		7	8	9	10				
4	Hygiene of resting areas on campus	1	2	3	4	5	6	88	99
		7	8	9	10				
5	Quietness in Library	1	2	3	4	5	6	88	99
		7	8	9	10				
6	Air-conditioning in your own office/working place	1	2	3	4	5	6	88	99
		7	8	9	10				
7	Hygiene in your own office/working place	1	2	3	4	5	6	88	99
		7	8	9	10				

E. Please rate about Service Quality in the following areas:

								Not applicable	No comment
1	Photocopying service	1	2	3	4	5	6	88	99
		7	8	9	10				
2	Security service	1	2	3	4	5	6	88	99
		7	8	9	10				
3	Cleaning service	1	2	3	4	5	6	88	99
		7	8	9	10				
4	Staff recruitment service	1	2	3	4	5	6	88	99
		7	8	9	10				
5	Hostel management	1	2	3	4	5	6	88	99
		7	8	9	10				
6	Library orientation	1	2	3	4	5	6	88	99
		7	8	9	10				
7	Maintenance service	1	2	3	4	5	6	88	99
		7	8	9	10				
8	Classroom allocation	1	2	3	4	5	6	88	99
		7	8	9	10				
9	Staff training	1	2	3	4	5	6	88	99
		7	8	9	10				

		7	8	9	10		
10	Staff activities organizing	1	2	3	4	5	6
		7	8	9	10	88	99
11	IT Help Desk support service for computing equipment	1	2	3	4	5	6
		7	8	9	10	88	99
12	Event / activity / seminar arrangement and supporting	1	2	3	4	5	6
		7	8	9	10	88	99

F. Please rate about your **Overall Satisfaction** in the following areas:

								Not applicable	No comment	
1	Overall performance of Academic Affairs Bureau ( AAB includes Registry and Student Affairs Office)	1	2	3	4	5	6	7	88	99
				8	9	10				
2	Overall performance of Bursary (BAF includes Accounts Office, Treasury Office and Procurement Office)	1	2	3	4	5	6	7	88	99
				8	9	10				
3	Overall performance of Computer Service Bureau (CSB includes Academic Computing Service & Information Management Service)	1	2	3	4	5	6	7	88	99
				8	9	10				
4	Overall performance of General Administration Bureau (GAB includes Central Services and Real Estate & Security Office)	1	2	3	4	5	6	7	88	99
				8	9	10				
5	Overall performance of Library	1	2	3	4	5	6	7	88	99
				8	9	10				
6	Overall performance of Personnel Office	1	2	3	4	5	6	7	88	99
				8	9	10				
7	Overall performance of Public Relations Office	1	2	3	4	5	6	7	88	99
				8	9	10				
8	Overall performance of Publication Centre	1	2	3	4	5	6	7	88	99
				8	9	10				

9	<p>Please select the service item(s) you always use (You may select more than one answer):</p> <p><input type="radio"/> Photocopying      <input type="radio"/> Computer support      <input type="radio"/> Cleaning      <input type="radio"/> Souvenir requisition</p> <p><input type="radio"/> Maintenance      <input type="radio"/> Procurement      <input type="radio"/> Car booking      <input type="radio"/> Book loaning / returning or other circulation services of Library</p> <p><input type="radio"/> Classroom booking      <input type="radio"/> Sports Venue Booking      <input type="radio"/> Car parking      <input type="radio"/> Event/Seminar organizing and supporting</p> <p><input checked="" type="radio"/> On-campus      <input type="radio"/> Accommodation reservation      <input type="radio"/> Other, please state: _____</p>
10	<p>In your opinion, which service item(s) need(s) to be improved? (You may select more than one answer):</p> <p><input type="radio"/> Photocopying      <input type="radio"/> Computer support      <input type="radio"/> Cleaning      <input type="radio"/> Souvenir requisition</p> <p><input type="radio"/> Maintenance      <input type="radio"/> Procurement      <input type="radio"/> Car booking      <input type="radio"/> Book loaning / returning or other circulation services of Library</p> <p><input type="radio"/> Classroom booking      <input type="radio"/> Sports Venue Booking      <input type="radio"/> Car parking      <input type="radio"/> Event/Seminar organizing and supporting</p>



10	The service attitude of the administrative staff serving in the general office of your faculty/academic unit	1 7	2 8	3 9	4 10	5 10	6	88	99
11	The capability to provide assistance by the administrative staff of the general office of your faculty/academic unit	1 7	2 8	3 9	4 10	5 10	6	88	99
12	The degree of neatness and tidiness of the working environment of the general office of your faculty/academic unit	1 7	2 8	3 9	4 10	5 10	6	88	99
13	Overall service performance of the general office of your faculty/academic unit	1 7	2 8	3 9	4 10	5 10	6	88	99

H. Please give your opinion to the below questions:

1.	In general, the overall performance of the general office your faculty/academic unit is improving. <input type="radio"/> Strongly disagree <input type="radio"/> Disagree <input type="radio"/> Neutral <input type="radio"/> Agree <input type="radio"/> Strongly agree <input type="radio"/> No comment
2.	Are there any other items should be added to the Performance Pledge of the general office of your faculty/academic unit? Please specify:
3.	How can improvement in communication be made between you and the general office of your faculty/academic unit? Please state below:
4.	Any particular comment which you can provide for the improvement of service of the general office of your faculty/academic unit.

~~ Thank you very much! ~~



(The original version of this questionnaire is different in style and format.)

# 澳門大學

## 服務滿意度問卷調查 (2004)



澳門大學現正進行一項全校性的問卷調查，主要目的為收集教職員和學生對“澳大行政和設施管理服務”的意見，調查結果將有助服務質素的持續改善，並且為訂定澳大行政管理的發展方向提供參考。

回答指引：

評分題：請圈出您的評分，其中

- ◆ 1分表示最低分 或 非常不滿意；
- ◆ 5分表示一般
- ◆ 10分表示最高分 或 非常滿意；
- ◆ 88= “不適用/未有使用經驗” 或 99 = “無意見/不願提供意見”

選擇題：請於圈內打上「X」

A. 一般題目，請按上述指引評定下列各題：

								不適用/未有使用經驗	無意見	
1	您對澳大各行政部門所提供的服務之整體滿意程度如何？	1	2	3	4	5	6	7	88	99
				8	9	10				
2	您對澳大前台接待服務的整體滿意程度如何？	1	2	3	4	5	6	7	88	99
				8	9	10				
3	請指出大學的整體服務質素未能達到、剛好達到還是超出您的預期呢？									
	未能達到預期			剛好達到預期				超出預期		
	-3	-2	-1	0	+1	+2	+3			
4	您有沒有在其他人面前稱讚或推薦使用澳大的行政服務： ○從不    ○甚少    ○有時    ○經常    ○很難說									
5	總的而言，您是否覺得澳大行政部門的整體表現正在改進中： ○非常不同意    ○不同意    ○一般    ○同意    ○非常同意    ○無意見									

B. 請就下列各項澳大現有設備/設施作出評分：

									不適用/未有使用經驗	無意見
1	體育設施	1	2	3	4	5	6	7	88	99
				8	9	10				
2	課室設施	1	2	3	4	5	6	7	88	99
				8	9	10				
3	辦公室電腦設備	1	2	3	4	5	6	7	88	99
				8	9	10				
4	所提供常用的電腦應用軟件	1	2	3	4	5	6	7	88	99
				8	9	10				
5	從校外連網到校園網絡的容易程度	1	2	3	4	5	6	7	88	99
				8	9	10				

6	休憩空間	1	2	3	4	5	6	7	88	99
				8	9	10				
7	圖書館藏書類別	1	2	3	4	5	6	7	88	99
				8	9	10				
8	車輛泊位	1	2	3	4	5	6	7	88	99
				8	9	10				
9	洗手間設備 (例如：? 紙、掛?、乾手機...等等)	1	2	3	4	5	6	7	88	99
				8	9	10				
10	辦公室空間	1	2	3	4	5	6	7	88	99
				8	9	10				
11	職員宿舍設施 (只供校內住客填寫)	1	2	3	4	5	6	7	88	99
				8	9	10				
12	校內指示牌	1	2	3	4	5	6	7	88	99
				8	9	10				

C. 請就下列各項澳大現時之運作程序作出評分：

									不適用/未有使用經驗	無意見
1	採購程序	1	2	3	4	5	6	7	88	99
				8	9	10				
2	繳納費用程序	1	2	3	4	5	6	7	88	99
				8	9	10				
3	圖書館借還書，及其他前線流通服務程序	1	2	3	4	5	6	7	88	99
				8	9	10				
4	處理員工私隱資料的保密性	1	2	3	4	5	6	7	88	99
				8	9	10				
5	紀念品申請及派發程序	1	2	3	4	5	6	7	88	99
				8	9	10				
6	預約校車或校巴程序	1	2	3	4	5	6	7	88	99
				8	9	10				

D. 請就下列各項澳大的環境狀況作出評分：

									不適用/未有使用經驗	無意見
1	課室的空氣調節	1	2	3	4	5	6	7	88	99
				8	9	10				
2	課室的衛生情況	1	2	3	4	5	6	7	88	99
				8	9	10				
3	洗手間的衛生情況	1	2	3	4	5	6	7	88	99
				8	9	10				
4	校內休憩地方的衛生情況	1	2	3	4	5	6	7	88	99
				8	9	10				
5	圖書館的寧靜	1	2	3	4	5	6	7	88	99
				8	9	10				
6	辦公室或工作地點的空氣調節	1	2	3	4	5	6	7	88	99
				8	9	10				
7	辦公室或工作地點的衛生情況	1	2	3	4	5	6	7	88	99
				8	9	10				

E. 請就下列各項服務質素作出評分：

								不適用/未有使用經驗	無意見	
1	影印服務	1	2	3	4	5	6	7	88	99
				8	9	10				
2	保安服務	1	2	3	4	5	6	7	88	99
				8	9	10				
3	清潔服務	1	2	3	4	5	6	7	88	99
				8	9	10				
4	人員招聘服務	1	2	3	4	5	6	7	88	99
				8	9	10				
5	職員宿舍管理	1	2	3	4	5	6	7	88	99
				8	9	10				
6	圖書館“使用及導覽課程”服務	1	2	3	4	5	6	7	88	99
				8	9	10				
7	維修服務	1	2	3	4	5	6	7	88	99
				8	9	10				
8	課室分配	1	2	3	4	5	6	7	88	99
				8	9	10				
9	員工培訓	1	2	3	4	5	6	7	88	99
				8	9	10				
10	組織員工活動	1	2	3	4	5	6	7	88	99
				8	9	10				
11	電腦設備支援服務	1	2	3	4	5	6	7	88	99
				8	9	10				
12	對活動/ 討會之策劃及支援服務	1	2	3	4	5	6	7	88	99
				8	9	10				

F. 請對下列各單位表現之整體滿意度作出評分：

									不適用/未有使用經驗	無意見
1	學術事務部（包括教務處及學生事務處）的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
									不適用/未有使用經驗	無意見
2	會計暨出納部（包括會計組、出納組及採購組）的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
3	電腦部（包括電腦教學組及電腦資訊管理組）的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
4	總務部（包括文書暨總務組及工程及保安組）的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
5	圖書館的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
6	人事處的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
7	出版中心的整體表現	1	2	3	4	5	6	7	88	99
				8	9	10				
8	公關部的整體表現	1	2	3	4	5	6	7	88	99

		8	9	10		
9	您經常使用的服務有哪些? (可選多於一項) <input type="checkbox"/> 影印服務 <input type="checkbox"/> 電腦支援服務 <input type="checkbox"/> 清潔服務 <input type="checkbox"/> 紀念品申請 <input type="checkbox"/> 維修服務 <input type="checkbox"/> 採購服務 <input type="checkbox"/> 預約校車服務 <input type="checkbox"/> 圖書館借還書及其他流通服務 <input type="checkbox"/> 客房預訂服務 <input type="checkbox"/> 停車場泊車服務 <input type="checkbox"/> 體育館租場服務 <input type="checkbox"/> 醫療服務 <input type="checkbox"/> 活動/? 討會之策劃及支援服務 <input type="checkbox"/> 課室預訂服務 <input type="checkbox"/> 其他, 請說明_____					
10	您認為哪些服務需要加以改善? (可選多於一項) <input type="checkbox"/> 影印服務 <input type="checkbox"/> 電腦支援服務 <input type="checkbox"/> 清潔服務 <input type="checkbox"/> 紀念品申請 <input type="checkbox"/> 維修服務 <input type="checkbox"/> 採購服務 <input type="checkbox"/> 預約校車服務 <input type="checkbox"/> 圖書館借還書及其他流通服務 <input type="checkbox"/> 客房預訂服務 <input type="checkbox"/> 停車場泊車服務 <input type="checkbox"/> 體育館租場服務 <input type="checkbox"/> 醫療服務 <input type="checkbox"/> 活動/? 討會之策劃及支援服務 <input type="checkbox"/> 課室預訂服務 <input type="checkbox"/> 其他, 請說明_____					
11	您對改善大學行政單位的服務有何意見:					

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**個人資料:**

性別:      男      女  
職員類別:      行政人員      教學人員      ? 究人員  
行政單位:      AAB (REG+SO)      BAF (AC+TRE+PCT)      GAB (CS+RE)  
CSB      LIB      PO      PRO  
PUB  
學術/? 究單位:      FBA      FED      FLL      FSH      FST      CPU  
ELC      CCS      CMS  
閣下於澳大服務年期:      少於 5 年      5 - 10 年      11-15 年      多於 15 年  
閣下瀏覽澳大網頁的頻率如何?  
永不      甚少      一個月數次      一周數次      每天      很難說/不知道

**教學或? 究人員, 請繼續填寫第四頁 (G 及 H 部份)。**

G. 請就您所屬學術單位之行政辦公室所提供之支援服務及職員的服務態度作出評分。  
(此部份只供教學/? 究人員填寫, 其他人士可略過此部份):

								不適用/未有使用經驗	無意見	
1	處理客房預訂的效率	1	2	3	4	5	6	7	88	99
				8	9	10				

2	處理校車預約的效率	1	2	3	4	5	6	7	8	9	10	88	99
3	處理課室預訂的效率	1	2	3	4	5	6	7	8	9	10	88	99
4	處理會議/座談會場地預留的效率	1	2	3	4	5	6	7	8	9	10	88	99
5	文書暨總務組處理收發郵件/文件/包裹到有關部門的頻率	1	2	3	4	5	6	7	8	9	10	88	99
6	對學術單位人員所需文具之供應/儲備的有效性	1	2	3	4	5	6	7	8	9	10	88	99
7	服務承諾項目的成效度	1	2	3	4	5	6	7	8	9	10	88	99
8	向印刷房要求影印服務的效率	1	2	3	4	5	6	7	8	9	10	88	99
9	您與所屬學術單位行政辦公室的溝通的有效度	1	2	3	4	5	6	7	8	9	10	88	99
10	您所屬學術單位行政辦公室人員的服務態度	1	2	3	4	5	6	7	8	9	10	88	99
11	您所屬學術單位行政辦公室人員提供協助的能力	1	2	3	4	5	6	7	8	9	10	88	99
12	您所屬學術單位行政辦公室人員的禮貌程度	1	2	3	4	5	6	7	8	9	10	88	99
13	您所屬學術單位行政辦公室的整潔程度	1	2	3	4	5	6	7	8	9	10	88	99
14	您所屬學術單位行政辦公室之整體服務表現	1	2	3	4	5	6	7	8	9	10	88	99

H. 請對下列各題給予意見：

1	<p>整體上，您所屬學術單位行政辦公室的整體表現正在改善中：</p> <p><input type="radio"/>非常不同意      <input type="radio"/>不同意      <input type="radio"/>一般      <input type="radio"/>同意      <input type="radio"/>非常同意      <input type="radio"/>無意見</p>
2	<p>在您所屬的學術單位行政辦公室的服務承諾中，是否應增加其他項目？若是，請說明是甚麼：</p>
3	<p>您對改善與所屬學術單位行政辦公室的溝通方面有甚麼建議：</p>
4	<p>您對改善所屬的學術單位行政辦公室的服務有何意見：</p>