



User Satisfaction Survey 2007

Final Report

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March 27, 2008

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Executive Summary

- The overall Customer Satisfaction Indexes (CSI) are constructed based on the three survey data, which are 70.6%, 71.9% and 69.8% in 2004, 2005 and 2007 respectively, indicating an up-and-down pattern. Taking the CSI, overall satisfaction scores and specific figures of some units into consideration in the last two year surveys, the satisfaction level tends to decline slightly.
- CMO and ICTO are the two most important factors that contribute to the CSI while IPR and library are the least important factors in this regard in the staff sample. In the student sample, treasury office, SAS and faculty office are the three most important areas that contribute to the CSI while CMO and library are the least important factors.
- For staff, a slight difference of the expectations was found in the last two surveys. Eighty-one percent of them claim that services meet or exceed their expectations in 2007, which is 1% point lower than that in 2005. For students, 63% claim that services meet or exceed their expectations in 2007 which is 7% point less than that in 2005.
- Sixty-five percent of the staff claim that they sometimes or always make recommendation while 26% of the students sometime or always do so in 2007. There is a slight decrease (1% point) for the staff sample from last year whereas a considerable gap was found for the student sample, accounting for a 6% point decrease from last year.
- Seventy-eight percent of the staff claim that the overall performance is improving which is 2% point less than that in 2005 while 45% of the students have the same opinion which is 4% point less than that in 2005.
- Thirty-two percent of the staff and 34% of the students replied that they encountered a service problem in the past year. The problems mainly happen in the areas of classroom/computer room facilities, computer networking, procurement, car-parking, reserving cars, finance procedure and venue booking for the staff, whereas enrollment, add/drop of courses, computer rooms/computers, faculty service, registry and library are the main areas that students encounter problems.
- Other than car parking which has been consented the most concerned service for staff, other services like cleaning, maintenance, procurement, computer support, and on-campus clinic are the top five that are suggested be improved, while canteen service, computer room service, course add-drop service, library service, and sports complex venue rental service are the most frequently mentioned services that need to be improved for students.

Introduction

The University of Macau conducted annual user satisfaction surveys in order to collect opinions about the facilities and services provided by various administrative units from the entire University community. Identifying the problems, weakness, strength and importance in these services will help the University management to set a direction for future development and provide better services for the University community.

The 2007 survey adopted the same approach as that used in 2004 and 2005. One significant difference is that the current report includes the construction of a customer satisfaction index (CSI) for each survey in order to compare the performance in general over times. The following research questions were asked and answered so as to provide useful reference for decision-making by the university management.

- 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 users' suggestions to or opinions about the services?
- How does the users' satisfaction change over times?

The structure of this report is divided into six parts: Executive Summary, Introduction, Methodology, Survey Results, Conclusion and Recommendations, and Appendices. A more detailed Literature Review on user satisfaction survey can be found in the 2004 report.

Methodology

I. Data Collection

The 2007 survey adopted four kinds of data collection methods. For the staff sample, we mainly used online survey, supplemented by paper-pencil and email forms of self-administered questionnaire. For the student sample, we interviewed students by telephone.

II. Sampling

For obtaining a representative sample, we conducted a census-like sampling of the staff in which each member of our staff received a standardized questionnaire by online, distribution and emailing; and we used a random sampling technique for drawing a sample for telephone interviews with all registered students. The survey was conducted between October 9 and November 14, 2007. Twenty-four UM students were trained to conduct interviews, to exercise supervision, and to perform data-input tasks. The sampling results are listed as follows.

1. Staff Sample

- A total of 810 staff was informed to complete the online survey at the first stage and to complete the email and paper-pencil surveys at the second stage.
- A total of 489 completed questionnaires were returned, among which 457 were from online survey, 10 from emailing and 38 from paper-pencil surveys, counting an overall return rate of 60.4% which is similar to that of the 2005 survey. The return rate from the administration units is 71.8%, whereas the return rate from the academic and research unit is 52.8%.
- Among all the 19 units, the highest return rate is 100% and the lowest is 45.9%.
- The sampling error is 4.5% at the 95% confidence level.

2. Student Sample

- A total of 948 students were randomly selected from the total of 6020 active students of the University.
- By using the Computer-Assisted Telephone Interviewing (CATI) system, we contacted 580 students while 368 were not available to be interviewed due to busy line, not being at home and other technical reasons. In the end, 554 were successfully interviewed, counting a very high response rate of 95.5%.
- The sampling error is 4.2% at the 95% confidence level.

III. Questionnaire

The same questionnaires were adopted as that of the year 2005 survey except for a few wording changes and adding and deleting of some service items by some units (Refer to details in the appendix)

IV. Scaling

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).
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] | |
| Lowest | | | | | | | | | | Highest |

- 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?

V. Construction of Customer Satisfaction Index

In customer satisfaction research, two approaches are commonly used for calculating the customer satisfaction index (CSI): stated- importance and derived- importance approaches. The stated- importance approach uses both stated importance and performance scores in constructing the CSI, while the derived-importance approach uses regression analysis to derive betas for calculating CSI (Chu 2002; Hill, et al., 2003). Both approaches have their strength and weakness. Considering the advantage of using the shorten version of questionnaires, the stability of statistical measure of the impact of attributes on overall customer satisfaction, and the superior power of prediction and explanation of the derived-importance approach to stated-importance approach (Chu 2002), we adopt the

derived- importance approach in this project.

As illustrated in Table 1 below, regression analysis is first run on overall satisfaction that is dependent on the attributes, the specific administrative units in our case, to produce the relative impacts of each attributes. The beta score of each attribute (column 1) is listed in column 2. Second, a beta weight of each attribute is calculated by the beta score divided by the sum of all beta scores (column 3). Third, a mean score is computed for each attribute from the respondents' evaluation score of the performance of that attribute (column 4). Fourth, a satisfaction weight is calculated by multiplying the beta weight with the mean score (column 5). Summing up the figures in column 6 produces an overall customer satisfaction index (column 6).

Table 1 An illustration of derived-importance approach to CSI

| Attribute (1) | importance score(beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) | CSI (6) |
|----------------|----------------------------|---------------------|--------------------------------|-------------------------|---------|
| AAB | 0.27 | 0.3375 | 6.9 | 2.32875 | |
| PO | 0.18 | 0.225 | 7.1 | 1.5975 | |
| BAF | 0.16 | 0.2 | 6.9 | 1.38 | |
| GAB | 0.13 | 0.1625 | 7.3 | 1.18625 | |
| PUB | 0 | 0 | 7 | 0 | |
| Library | 0.19 | 0.2375 | 7.3 | 1.73375 | |
| CSB | 0 | 0 | 7 | 0 | |
| PR | 0.13 | 0.1625 | 6.9 | 1.12125 | |
| Faculty Office | 0 | 0 | 7.3 | 0 | |
| Total | 0.8 | | | | |

The CSI score varies from 0 to 100 by transforming the original sum of the satisfaction weight which ranges from 0 to 10. Because of the customer response ranging from 0 to 10, a score of 80 roughly translates into to an average customer response of “8”. Such approach is more stable than simply looking at the responses to a single overall satisfaction question as an index is less affected when a customer misunderstands one question.

The satisfaction weights in column 5 tell each attribute's relative contribution to the total satisfaction index score. For example, AAB receives a satisfaction weight of 2.32875, indicating that it is the most important area among others that affects the change of the satisfaction index. The attribute carrying a high beta weight with a low mean score of satisfaction means is the one needs to be addressed and studied carefully.

Survey Results

I. Sample Characteristics

1. Staff Sample

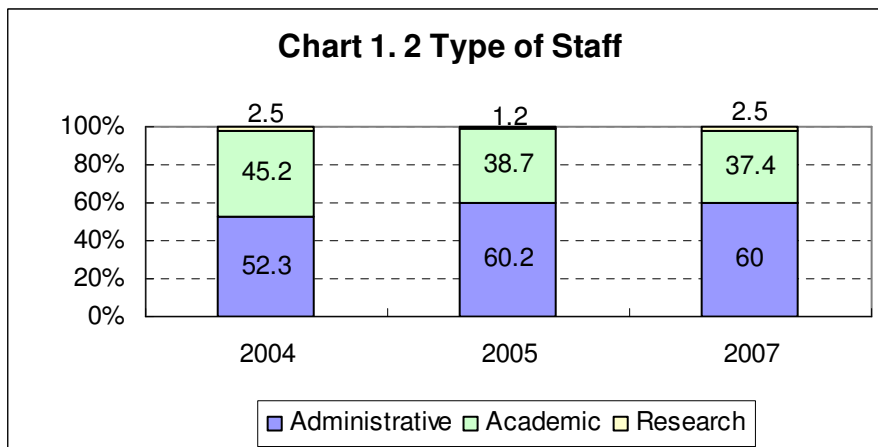
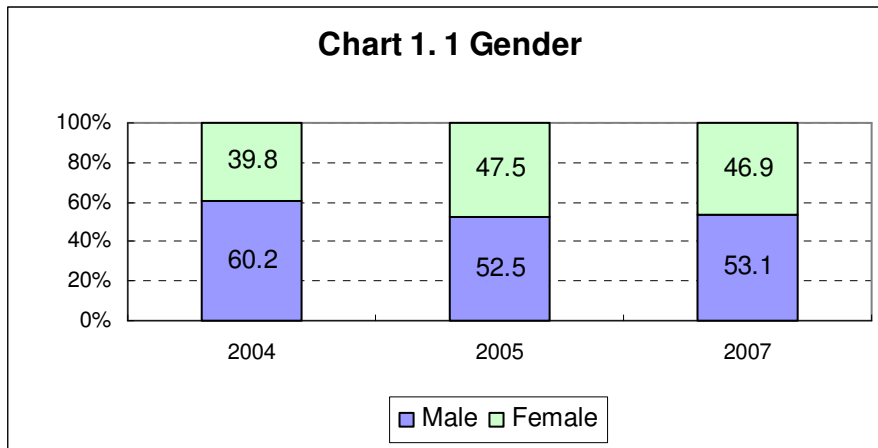


Chart 1.3 Years of Serving UM

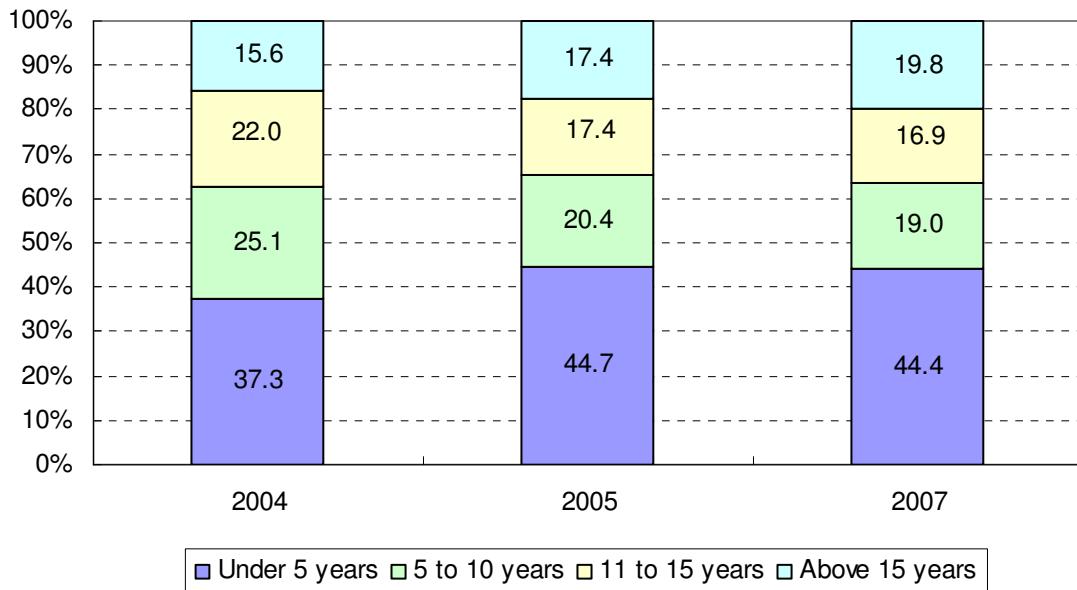
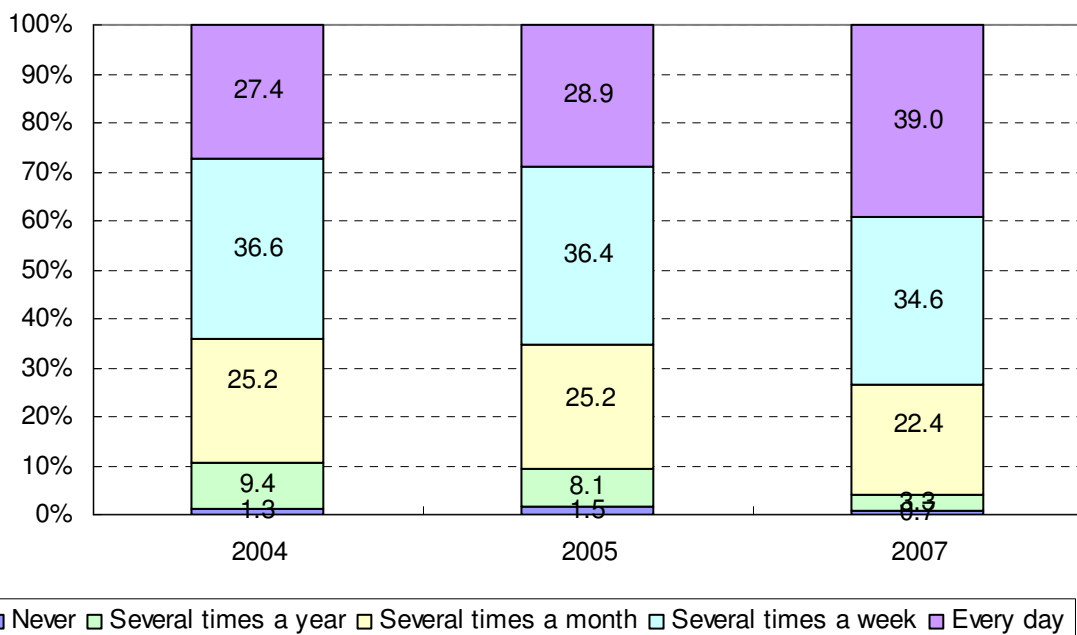
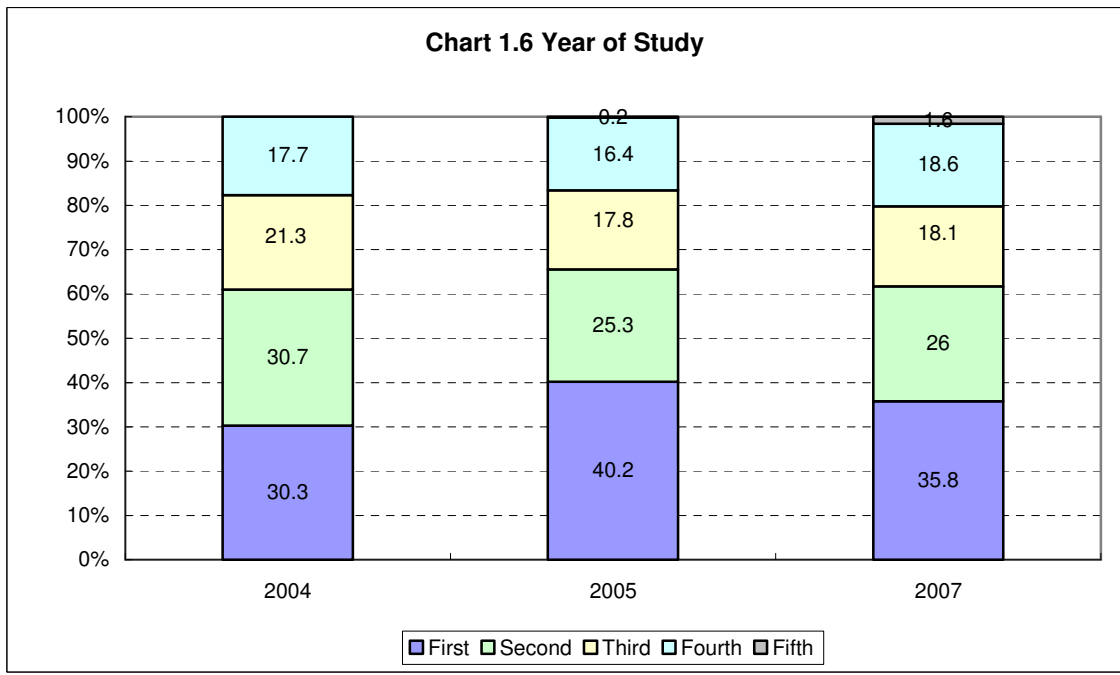
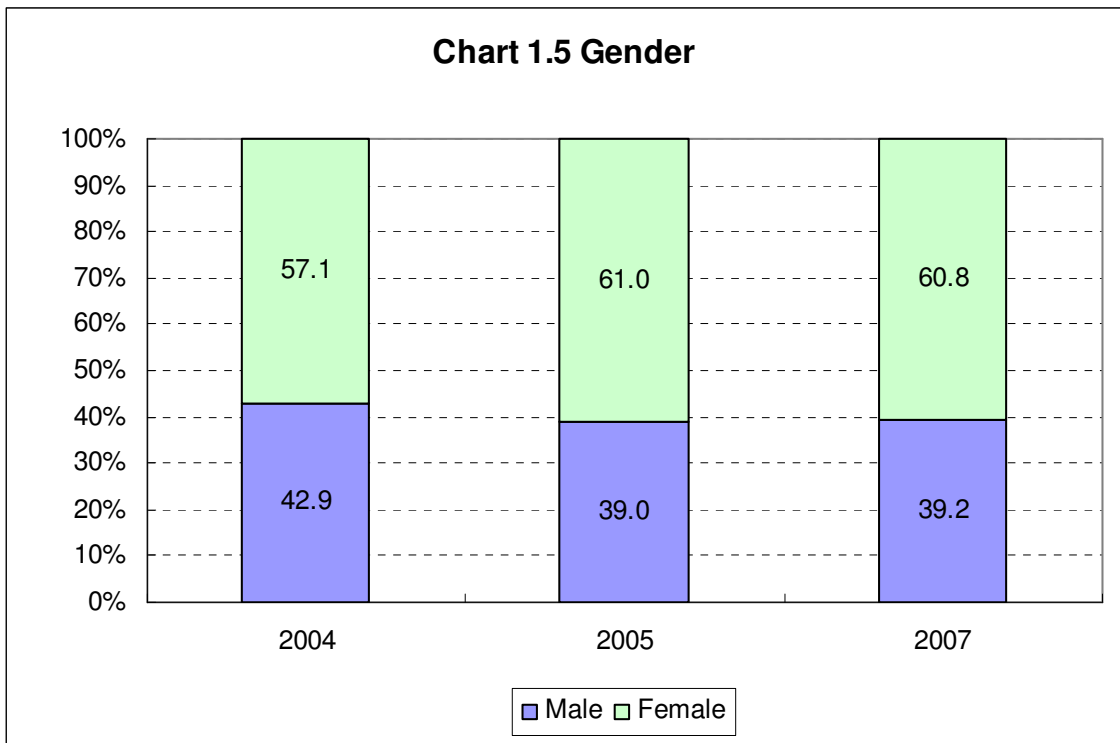


Chart 1.4 How often do you browse UM homepages?



2. Student Sample



Note: Students from Foundation Studies, Intensive and Probationary Studies were grouped into First year.

Chart 1.7 Study Mode

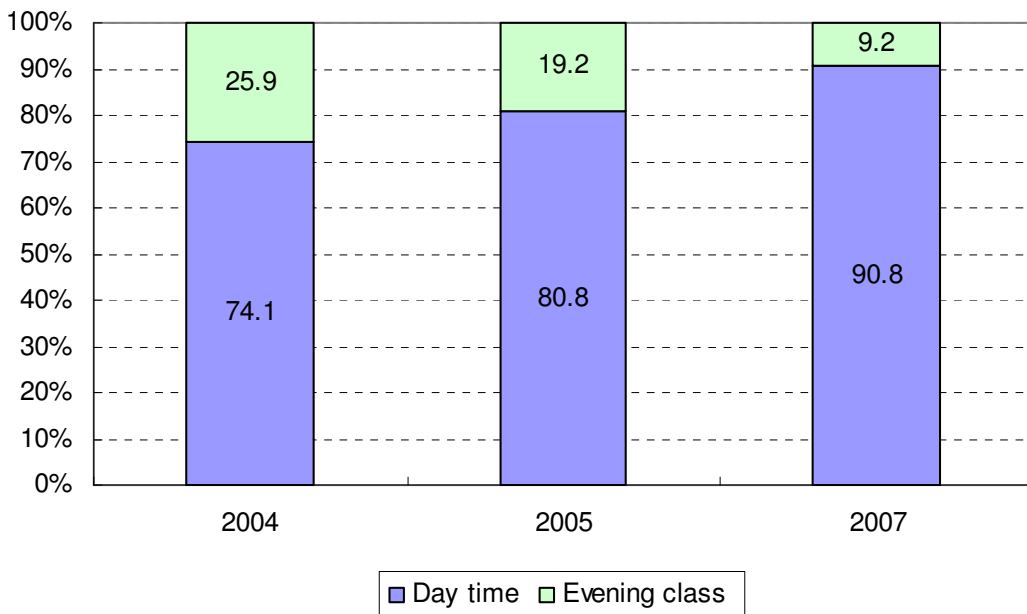


Chart 1.8 Faculty

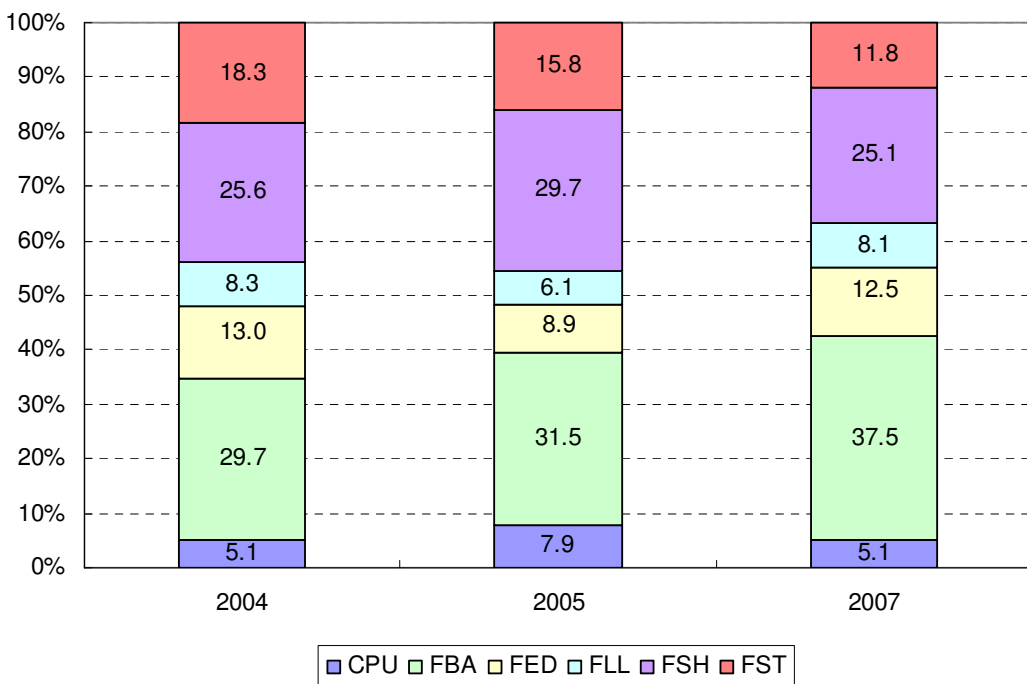


Chart 1.9 Housing Status

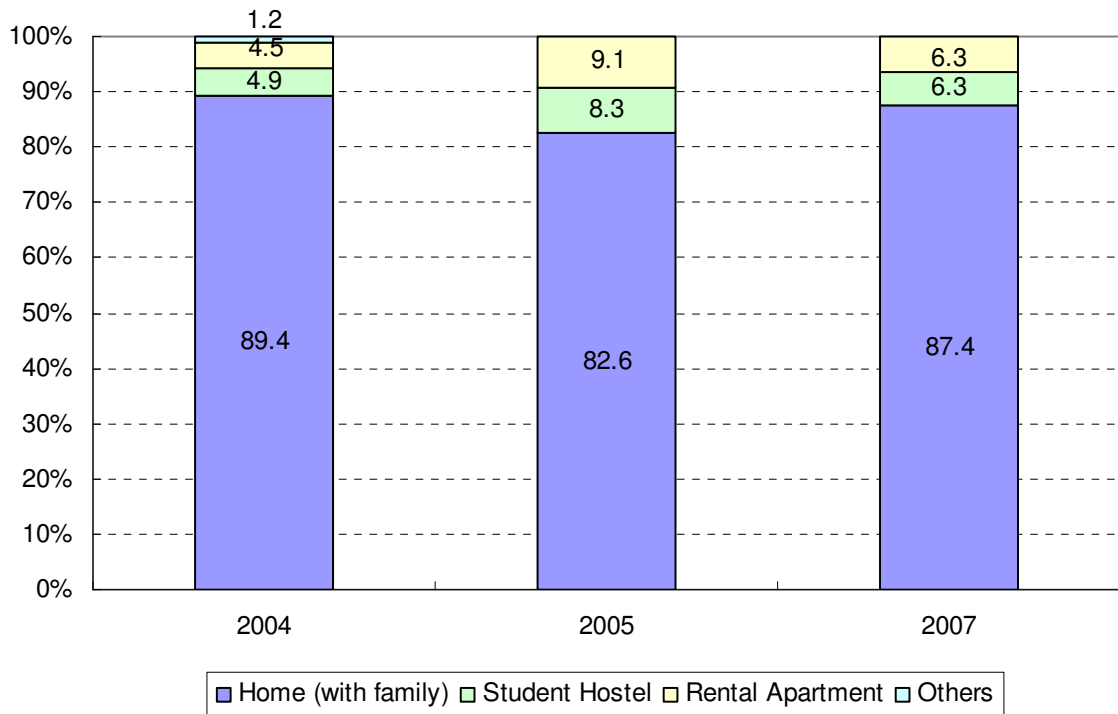
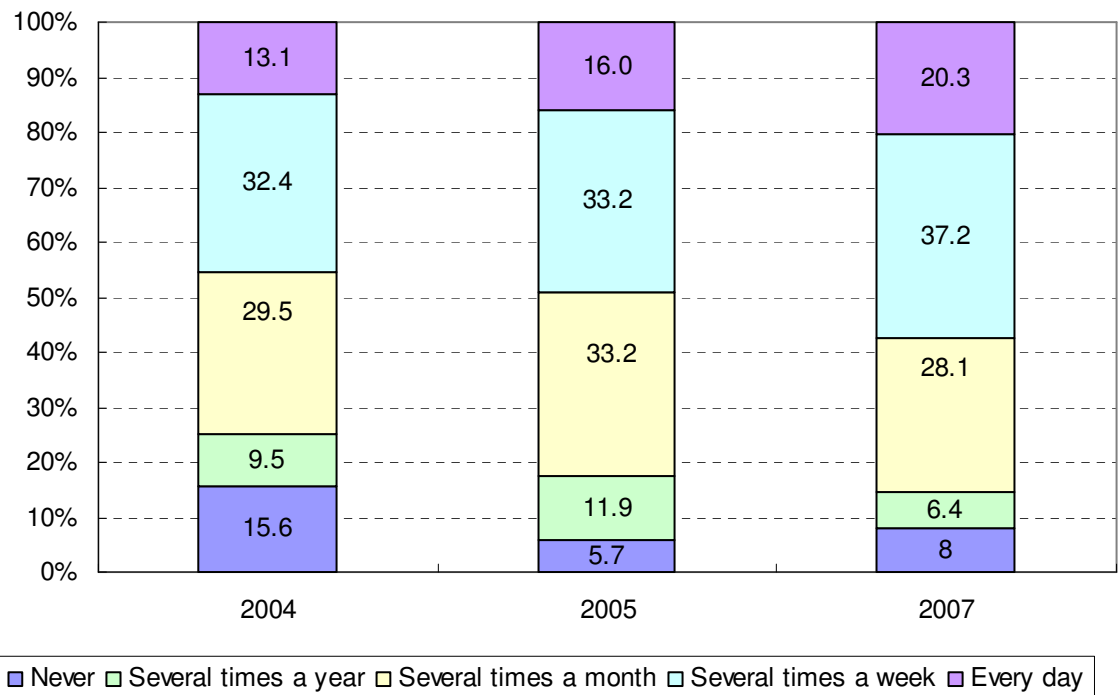


Chart 1.10 How often do you browse UM homepages?



II. Main Findings

A. Closed-ended questions:

1. Please indicate whether our services fall short of, exactly meet, or exceed your expectations

| | Staff | | | Students | | |
|---|-------|------|------|----------|-------|-------|
| | 2004 | 2005 | 2007 | 2004 | 2005 | 2007 |
| Completely Fall Short of Expectation (-3) | 0% | 0% | 1% | 1% | 1% | 1% |
| Somewhat Fall Short of Expectation (-2) | 3% | 1% | 3% | 10% | 7% | 11% |
| Slightly Fall Short of Expectation (-1) | 12% | 14% | 16% | 12% | 24% | 26% |
| Exactly Meet Expectations (0) | 38% | 35% | 32% | 64% | 47% | 48% |
| Slightly Exceed Expectations (+1) | 34% | 35% | 32% | 9% | 18% | 12% |
| Somewhat Exceed Expectations (+2) | 11% | 14% | 14% | 4% | 4% | 3% |
| Completely Exceed Expectations (+3) | 2% | 1% | 3% | 1% | | - |
| Mean scores | 0.40 | 0.46 | 0.44 | -0.14 | -0.14 | -0.32 |

2. How often do you praise / recommend UM's administrative services to others?

| | Staff | | | Students | | |
|-----------|-------|------|------|----------|------|------|
| | 2004 | 2005 | 2007 | 2004 | 2005 | 2007 |
| Never | 6% | 7% | 4% | 61% | 44% | 49% |
| Seldom | 30% | 27% | 31% | 13% | 24% | 25% |
| Sometimes | 52% | 55% | 53% | 25% | 30% | 23% |
| Always | 12% | 11% | 12% | 1% | 2% | 3% |

3. In general, the overall performance of the administrative units of UM is improving.

| | Staff | | | Students | | |
|-------------------|-------|------|------|----------|------|------|
| | 2004 | 2005 | 2007 | 2004 | 2005 | 2007 |
| Strongly disagree | 0% | 1% | 0% | 1% | 2% | 1% |
| Disagree | 2% | 2% | 4% | 13% | 10% | 11% |
| Neutral | 18% | 16% | 18% | 17% | 40% | 43% |
| Agree | 63% | 65% | 62% | 69% | 47% | 43% |
| Strongly agree | 17% | 15% | 16% | 1% | 2% | 2% |

4. In general, the overall performance of the general office of your faculty/academic unit is improving (Only for staff in 2005 and 2007 surveys).

| Table 2.4 The overall performance of the general office of your faculty/academic unit is improving (Staff). | | |
|--|------|------|
| | 2005 | 2007 |
| Strongly disagree | 2% | 0% |
| Disagree | 2% | 5% |
| Neutral | 11% | 14% |
| Agree | 46% | 52% |
| Strongly agree | 32% | 29% |

5. Have you experienced a problem with the service including equipment/facilities/operation procedures/environment condition/frontline services in the past year?

| Table 2.5 Problems experienced in the past year | | | | |
|--|--------------|------|----------------|------|
| | Staff | | Student | |
| | 2005 | 2007 | 2005 | 2007 |
| Yes | 19% | 32% | 30% | 34% |
| No | 56% | 65% | 69% | 66% |
| No Answer | 25% | 4% | 1% | 0% |

6. Mean scores of Satisfaction (Staff Sample)

| | 2004 | 2005 | 2007 |
|--------------------|------|------|------|
| All Services | 7.2 | 7.2 | 7.1 |
| Frontline Services | 7.4 | 7.3 | 7.2 |
| AAB --> AAO | 6.9 | 7.1 | 6.9 |
| BAF --> FO | 6.8 | 7.1 | 7.0 |
| CSB --> ICTO | 7.2 | 7.4 | 7.3 |
| GAB --> CMO | 7.3 | 7.1 | 6.8 |
| Library | 7.3 | 7.4 | 7.4 |
| PO --> AHR | 7.1 | 7.1 | 6.9 |
| PR --> IPR | 6.9 | 6.9 | 6.7 |

| Units | 2005 | | | 2007 | | | Difference (2007-2005) |
|---|------------|------------|----------------|------------|------------|----------------|------------------------|
| | N | Mean | Std. Deviation | N | Mean | Std. Deviation | |
| AAB-->AAO | | | | | | | |
| Overall performance | 329 | 7.1 | 1.5 | 355 | 6.9 | 1.6 | -0.2 |
| Efficiency of Classroom allocation | 271 | 6.8 | 1.8 | 304 | 6.7 | 1.9 | -0.2 |
| BAF-->FO | | | | | | | |
| Overall performance | 377 | 7.1 | 1.5 | 423 | 7.0 | 1.6 | -0.1 |
| Payment procedure | 275 | 6.6 | 1.7 | 331 | 6.3 | 1.8 | -0.2 |
| Procurement procedure | 240 | 6.8 | 1.5 | 279 | 6.3 | 1.7 | -0.5 |
| Sufficient channel for payment request | 227 | 6.6 | 1.5 | - | - | - | - |
| Service in providing price quotations, placing order or delivery of goods | 231 | 6.6 | 1.7 | - | - | - | - |
| Disbursement/reimbursement by auto-pay service | 254 | 7.2 | 1.7 | - | - | - | - |
| CSB-->ICTO | | | | | | | |
| Overall performance | 407 | 7.4 | 1.6 | 444 | 7.3 | 1.6 | -0.1 |
| IT support service for computing facilities in offices | 407 | 7.2 | 1.6 | 465 | 7.3 | 1.6 | 0.1 |
| Application software provided for general purposes | 409 | 6.8 | 1.8 | - | - | - | - |
| Computer equipment in offices | 423 | 6.8 | 1.8 | 464 | 7.1 | 1.7 | 0.2 |
| Intranet accessibility off-campus | | | | - | - | - | - |
| Administrative information systems | 390 | 6.9 | 1.6 | - | - | - | - |
| Support service for administrative information systems | 300 | 6.9 | 1.5 | - | - | - | - |
| GAB-->CMO | | | | | | | |
| Overall performance | 395 | 7.1 | 1.4 | 436 | 6.8 | 1.7 | -0.3 |
| Photocopying service | 345 | 7.1 | 1.7 | - | - | - | - |
| Security service | 400 | 7.1 | 1.5 | 464 | 6.9 | 1.6 | -0.2 |
| Maintenance service | 370 | 7.1 | 1.5 | 407 | 6.6 | 1.6 | -0.5 |

| | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|-------------|
| Hygiene in your own office/working place | 434 | 7.0 | 1.7 | 474 | 7.1 | 1.5 | 0.2 |
| Procedure for booking car/school bus | 241 | 6.8 | 1.7 | 286 | 6.5 | 1.8 | -0.3 |
| Hostel management | 104 | 6.8 | 1.8 | 106 | 6.5 | 1.8 | -0.3 |
| Classroom facilities | 351 | 7.0 | 1.6 | 385 | 6.9 | 1.6 | -0.1 |
| Cleaning service | 431 | 6.9 | 1.6 | - | - | - | - |
| Hygiene in classrooms | 350 | 6.8 | 1.8 | 371 | 6.9 | 1.7 | 0.1 |
| Air-conditioning in classrooms | 343 | 6.4 | 2.0 | - | - | - | - |
| Air-conditioning in your own office/working place | 429 | 6.3 | 2.2 | 454 | 6.3 | 2.0 | 0.0 |
| Hygiene of resting areas on campus | 389 | 6.6 | 1.6 | 426 | 6.5 | 1.6 | 0.0 |
| Facilities in staff hostels (for campus residents only) | 52 | 6.5 | 2.3 | 64 | 5.9 | 2.4 | -0.7 |
| Signposts on campus | 384 | 6.3 | 1.8 | 439 | 6.2 | 1.7 | 0.0 |
| Facilities in washrooms (e.g. toilet tissue, hanger, hand dryer...etc) | 433 | 6.6 | 1.9 | 467 | 6.4 | 1.9 | -0.2 |
| Hygiene in washrooms | 433 | 6.2 | 1.9 | 469 | 6.1 | 1.9 | -0.1 |
| Sports Complex facilities | 247 | 6.3 | 1.8 | - | - | - | - |
| Office space | 428 | 6.1 | 2.0 | - | - | - | - |
| Recreational areas | 382 | 5.3 | 2.0 | - | - | - | - |
| Car-park lots | 300 | 4.5 | 2.3 | - | - | - | - |
| Library | | | | | | | |
| Overall performance | 375 | 7.4 | 1.4 | 440 | 7.4 | 1.5 | 0.0 |
| Procedure for loaning/returning books, or other circulation services in Library | 351 | 7.5 | 1.5 | - | - | - | - |
| Quietness in Library | | | | - | - | - | - |
| Library reference work | 272 | 7.0 | 1.6 | 354 | 7.1 | 1.6 | 0.1 |
| Shelving space in Library | 346 | 6.9 | 1.6 | - | - | - | - |
| Library resources (books, periodicals and e-resources) | 380 | 6.5 | 1.8 | 424 | 6.8 | 1.8 | 0.3 |
| Library liaison work | 204 | 7.0 | 1.6 | 165 | 6.8 | 2.0 | -0.2 |
| PO --> AHR | | | | | | | |
| Overall performance | 412 | 7.1 | 1.6 | 448 | 6.9 | 1.8 | -0.2 |
| Staff training | 328 | 6.7 | 1.7 | 383 | 6.7 | 1.7 | 0.0 |
| Confidentiality of staff records | 323 | 6.6 | 2.0 | 352 | 6.5 | 2.0 | -0.1 |
| Staff recruitment service | 244 | 6.6 | 1.7 | 286 | 6.3 | 1.8 | -0.3 |
| Staff activities organizing | 332 | 6.3 | 1.9 | 377 | 6.4 | 1.8 | 0.1 |
| PR --> IPR | | | | | | | |
| Overall performance | 317 | 6.9 | 1.6 | 380 | 6.7 | 1.7 | -0.2 |
| Procedure for souvenir requisition and distribution | 216 | 6.8 | 1.7 | 271 | 6.8 | 1.6 | 0.0 |
| Event/ conference arrangement and supporting | 281 | 6.9 | 1.7 | 313 | 6.6 | 1.8 | -0.3 |
| PUB | | | | | | | |
| Overall performance | | | | - | - | - | - |
| Academic General Office | | | | | | | |
| Overall performance | 175 | 8.0 | 1.6 | 194 | 7.6 | 1.9 | -0.4 |
| CPU | 10 | 8.8 | 1.2 | 10 | 8.1 | 1.7 | -0.7 |
| ELC | 11 | 9.2 | 0.8 | 10 | 8.1 | 1.7 | -1.1 |

| | | | | | | | |
|-----|----|------|-----|----|-----|-----|------|
| FST | 24 | 7.7 | 2.0 | 29 | 7.3 | 2.0 | -0.4 |
| FLL | 15 | 8.1 | 1.7 | 17 | 6.9 | 2.2 | -1.2 |
| CMS | 1 | 10.0 | . | 4 | 8.3 | 1.3 | -1.8 |
| FBA | 35 | 8.0 | 1.2 | 35 | 7.1 | 2.0 | -0.9 |
| FSH | 38 | 8.1 | 1.5 | 52 | 7.7 | 1.6 | -0.4 |
| FED | 19 | 8.1 | 1.4 | 24 | 7.9 | 2.0 | -0.1 |
| CCS | | | | 1 | 7.0 | . | 7.0 |

* There may not be exact figures after deduction due to round-ups.

7. Mean scores of Satisfaction (Student Sample)

| | 2004 | 2005 | 2007 |
|--------------------|------|------|------|
| All Services | 6.5 | 6.5 | 6.4 |
| Frontline Services | 6.9 | 7.0 | 6.6 |
| Study Life | - | 6.5 | 6.6 |
| REG | 6.6 | 6.8 | 6.5 |
| SO→SAS | 6.8 | 6.7 | 6.7 |
| Treasury Office | 6.8 | 6.8 | 6.8 |
| CSB→ICTO | 6.6 | 6.6 | 6.6 |
| GAB→CMO | 6.7 | 6.6 | 6.6 |
| Library | 7.5 | 7.6 | 7.5 |
| Faculty Office | 6.7 | 6.8 | 6.6 |

| Units | 2005 | | | 2007 | | | Difference (2007-2005) |
|---|------------|------------|----------------|------------|------------|----------------|------------------------|
| | N | Mean | Std. Deviation | N | Mean | Std. Deviation | |
| REG | | | | | | | |
| Overall performance | 496 | 6.8 | 3.9 | 547 | 6.5 | 1.5 | -0.3 |
| Procedure of registration (New students only) | 256 | 6.5 | 6.0 | - | - | - | - |
| Procedure for applying testimonials and transcripts | 407 | 6.4 | 1.5 | - | - | - | - |
| Classroom allocation | 497 | 6.2 | 1.6 | 554 | 6.4 | 1.6 | 0.2 |
| SO--SAS | | | | | | | |
| Overall performance | 470 | 6.7 | 1.5 | 537 | 6.7 | 1.4 | 0.0 |
| Student hostel management | 41 | 6.3 | 2.0 | 34 | 6.7 | 1.7 | 0.3 |
| Student counseling service | 319 | 6.1 | 1.5 | - | - | - | - |
| Career guidance service | 265 | 5.8 | 1.5 | 399 | 5.9 | 1.6 | 0.1 |
| Procedure of locker renting | 408 | 5.7 | 1.6 | - | - | - | - |
| Sport activities | 383 | 5.8 | 1.7 | 462 | 6.2 | 1.6 | 0.4 |
| Treasury Office | | | | | | | |
| Overall performance | 470 | 6.8 | 1.4 | 537 | 6.8 | 1.4 | 0.0 |
| E-purse services | | | | - | - | - | - |
| Procedure for payment | 487 | 6.7 | 1.5 | 541 | 6.7 | 1.6 | 0.0 |

| | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|-------------|
| Sufficiency of current payment channels | 485 | 6.4 | 1.4 | 538 | 6.5 | 1.4 | 0.1 |
| Procedure of adding value of e-purse | 467 | 6.8 | 1.5 | - | - | - | - |
| CSB--ICTO | | | | | | | |
| Overall performance | 474 | 6.6 | 1.4 | 491 | 6.6 | 1.3 | 0.0 |
| Functions provided in SIWeb | 495 | 6.8 | 1.5 | 551 | 6.6 | 1.6 | -0.2 |
| Application software provided for course work | 456 | 6.6 | 1.5 | - | - | - | - |
| Supporting service in computer rooms | 481 | 6.3 | 1.5 | 538 | 6.3 | 1.6 | 0.0 |
| Performance of computing equipment in computer room | 493 | 6.2 | 1.7 | - | - | - | - |
| Intranet accessibility off-campus | | | | - | - | - | - |
| Quantity of computing equipment in computer rooms | 494 | 5.8 | 1.8 | - | - | - | - |
| Quietness in computer rooms | 490 | 5.8 | 4.1 | - | - | - | - |
| Course enrollment | 485 | 5.3 | 2.0 | 521 | 4.9 | 2.0 | -0.3 |
| GAB--CMO | | | | | | | 0.0 |
| Overall performance | 417 | 6.6 | 1.2 | 491 | 6.6 | 1.3 | 0.0 |
| Hygiene in classrooms | 505 | 7.2 | 1.4 | 554 | 7.4 | 1.3 | 0.2 |
| Hygiene in student hostels (for hostel students only) | 38 | 6.4 | 1.5 | | | | -6.4 |
| Classroom facilities | 505 | 7.1 | 1.4 | 554 | 7.1 | 1.4 | 0.0 |
| Facilities in washrooms | 504 | 6.9 | 1.5 | | | | -6.9 |
| Hygiene of resting areas on campus | 495 | 6.7 | 1.3 | 552 | 6.7 | 1.3 | 0.0 |
| Student hostels and facilities (For hostel students only) | 42 | 6.6 | 1.5 | 35 | 7.5 | 1.4 | 0.9 |
| Satisfaction of security services | 458 | 6.6 | 1.5 | - | - | - | - |
| Hygiene in washrooms | 505 | 6.6 | 1.6 | 553 | 6.3 | 1.7 | -0.2 |
| Campus building maintenance service | 472 | 6.3 | 1.4 | - | - | - | - |
| Air-condition in classrooms | 505 | 6.3 | 1.7 | - | - | - | - |
| Signposts on campus | 498 | 6.2 | 1.6 | 548 | 6.3 | 1.6 | 0.1 |
| Space for study room/study area | 477 | 5.9 | 1.7 | 500 | 6.2 | 1.5 | 0.3 |
| Sports Complex facilities | 377 | 5.9 | 1.7 | - | - | - | - |
| Facilities in canteen | 492 | 5.6 | 1.7 | 547 | 5.4 | 1.7 | -0.2 |
| School clinic service | 286 | 5.7 | 1.8 | 350 | 5.7 | 1.6 | 0.0 |
| Recreational areas | 494 | 5.7 | 1.8 | - | - | - | - |
| Sufficiency of photocopying services | 480 | 6.0 | 1.8 | - | - | - | - |
| Library | | | | | | | |
| Overall performance | 498 | 7.6 | 1.2 | 553 | 7.5 | 1.2 | -0.1 |
| Quietness in Library | | | | - | - | - | - |
| Study space in Library | 492 | 7.7 | 1.3 | - | - | - | - |
| Procedure for loaning/returning books | 480 | 7.5 | 1.3 | - | - | - | - |
| Assistance accessibility in Library | 479 | 7.0 | 1.5 | - | - | - | - |
| Range of books in Library | 497 | 7.1 | 1.6 | - | - | - | - |
| Library use & orientation course | 477 | 7.0 | 1.4 | - | - | - | - |
| Faculty Office | | | | | | | |
| Overall performance | 498 | 6.8 | 1.6 | 547 | 6.6 | 1.7 | -0.2 |
| CPU ^a | 40 | 7.2 | 1.3 | 28 | 7.6 | 1.0 | 0.4 |

| | | | | | | | |
|-----------------|-----|-----|-----|-----|-----|-----|------|
| FED | 43 | 7.5 | 1.2 | 68 | 7.2 | 1.5 | -0.3 |
| FST | 78 | 7.0 | 1.5 | 63 | 6.7 | 1.7 | -0.4 |
| FSH | 148 | 6.9 | 1.6 | 136 | 7.0 | 1.6 | 0.0 |
| FBA | 158 | 6.4 | 1.7 | 207 | 6.1 | 1.8 | -0.3 |
| FLL | 31 | 6.6 | 2.1 | 44 | 6.4 | 1.7 | -0.3 |
| ICMS (New 2007) | | | | 1 | 7.0 | - | - |

* There may not be exact figures after deduction due to round-ups.

8. How satisfied are you with the following items provided by the GENERAL OFFICE of YOUR FACULTY or ACADEMIC UNIT

| Table 3.3 Ratings of Performance of Faculty or Academic Units by (by students) | | |
|---|------|------|
| | 2005 | 2007 |
| | Mean | Mean |
| The ability to respond to questions/enquiries accurately | 6.7 | 6.6 |
| Courtesy of staff in the General Office | 7 | 6.9 |

9. In your opinion, which service item(s) need(s) to be improved?

| Table 3.4 Which service item(s) need(s) to be improved? (2007) | | | |
|---|-------|--------------------------------------|-------|
| Staff | | Students | |
| Cleaning | 36.3% | Others, please state | 43.7% |
| Maintenance | 27.3% | Canteen service | 28.7% |
| Procurement | 20.7% | Computer room | 23.4% |
| Computer support | 18.7% | Library Services | 11.5% |
| On-campus clinic | 15.2% | Sports complex venue rental | 8.7% |
| Car booking | 14.3% | E-purse value adding | 8.2% |
| Library Services | 12.1% | Cleaning | 6.8% |
| Paying Procedures | 11.7% | Student hostel | 2.5% |
| Photocopying service at the Print | 10.4% | Maintenance | 2.3% |
| Classroom booking | 10.1% | Applying testimonials/transcripts | 1.4% |
| University level Event/conference | 10.1% | Career guidance | 1.1% |
| Sports Venue booking | 9.5% | School clinic | 1.1% |
| Media Service | 6.2% | Payment procedures | 1.1% |
| Accommodation reservation | 5.9% | Student counseling | 0.8% |
| Souvenir requisition | 5.1% | Laundry | 0.6% |
| Other | 4.2% | Security consultation | 0.6% |
| Campus Tour arrangement | 3.5% | Event/Seminar organizing and support | 0.6% |

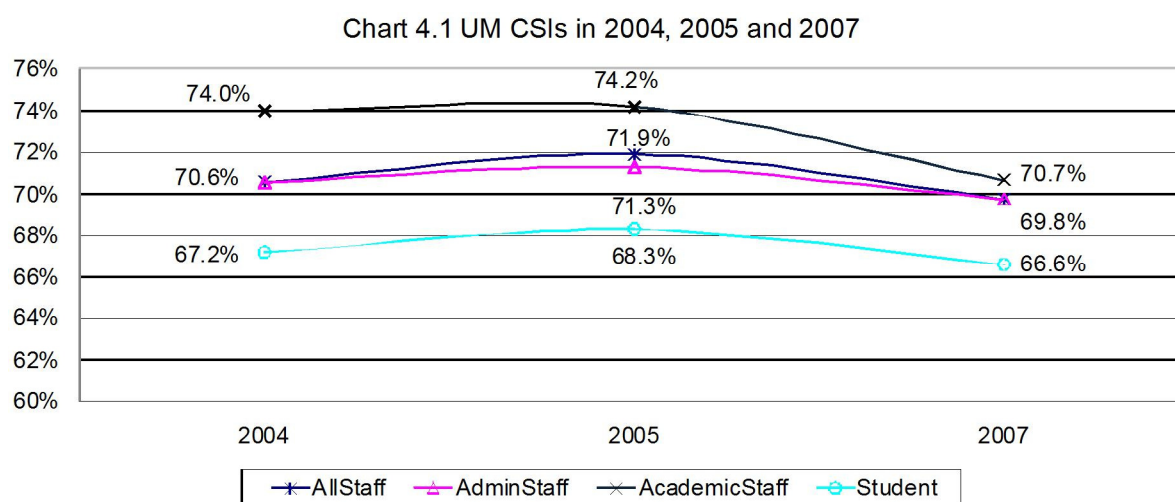
* Item "car parking" was omitted in 2007 survey.

III. Customer Satisfaction Index, CSI

Based on the derived-importance approach discussed in the methodology section, a series of CSIs are computed from the 2004, 2005 and 2007 survey data. Table 4.1 and Chart 4.1 show the results. The overall CSIs are 70.6%, 71.9% and 69.8% in 2004, 2005 and 2007 respectively. After a slight increase of the CSI values from 2004 to 2005, there is a moderate decrease in 2007 in all groups of users. Among them, the student group has a lowest satisfaction (66.6% in 2007) while the academic staff has the highest satisfaction (70.7% in 2007). Those who provide services gave themselves a lower evaluation (69.8% in 2007) than the academic staff. It should be noted that although the academic staff gave a higher evaluation than the other two groups, their CSI value drops 3.5% points from 2005 to 2007 which is considerably higher than the 1.5% points from the administrative staff and 1.7% points from the students respectively.

Table 4.1 UM CSIs in 2004, 2005 and 2007

| | 2004 | 2005 | 2007 |
|-----------------------------|-------|-------|-------|
| All Staff | 70.6% | 71.9% | 69.8% |
| Administrative Staff | 70.6% | 71.3% | 69.8% |
| Academic Staff | 74.0% | 74.2% | 70.7% |
| Students | 67.2% | 68.3% | 66.6% |



Looking into their relative contribution to the overall satisfaction in 2007 (details in Appendix II), CMO and ICTO are the two most important factors that contribute to the CSI while IPR and library are the least important factors in this regard in the staff sample. But with reference to the academic staff, the faculty office service is the most important factor among all units. In the student sample, treasury office, SAS and faculty office are the three

most important areas that contribute to the CSI while CMO and library are the least important factors.

Conclusion

Based on the results of current survey and the previous two surveys in 2004 and 2005, the following points are necessary to be addressed.

First, the response rate for the students sample was very high so that the generalization of the results looks sounding. However, even though the overall return rate was satisfactory for the staff sample, cautious interpretation should be made when looking at the results because the return rate of the academic units was very low.

Second, the constructed overall Customer Satisfaction Indexes (CSI) are 70.6%, 71.9% and 69.8% in 2004, 2005 and 2007 respectively, indicating an up-and-down pattern. Taking the CSI, overall satisfaction scores and specific figures of some units into consideration in the last two year surveys, the satisfaction level tends to decline slightly.

It was found that CMO and ICTO are the two most important factors that contribute to the CSI while IPR and library are the least important factors in this regard in the staff sample. In the student sample, treasury office, SAS and faculty office are the three most important areas that contribute to the CSI while CMO and library are the least important factors.

Special attention should be paid to the findings that more than one-third of respondents in both samples replied that they encountered a service problem in the past year. These problems mainly are classroom facilities, networking, and classroom booking for the staff, whereas enrollment, course add-drop, and computer service for the students.

Finally, other than car parking which has been consented the most concerned service for the staff, other services like cleaning, maintenance, procurement, computer support, and on-campus clinic are the top five that are suggested be improved, while canteen service, computer room service, course add-drop service, library service, and sports complex venue rental service are the most frequently mentioned services that need to be improved for students.

Acknowledgement

The consultant of this survey would like to thank colleagues who ever offered their kindest help on the questionnaire design, technical supports, and all contact persons for their cooperation.

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Appendix I Response Rates

| Unit | Unit | Sample | Population | Response Rate |
|----------------------------|--------------|--------|------------|---------------|
| AAO+REG+SAS | AAO | 30 | 35 | 85.7% |
| | AHR | 20 | 22 | 90.9% |
| | CCE | 5 | 5 | 100.0% |
| CS+CDE | CMO | 46 | 92 | 50.0% |
| ACC+TRE+PCT | FO | 29 | 43 | 67.4% |
| ICTO+(ICTO-IMS)+(ICTO-TUS) | ICTO | 31 | 43 | 72.1% |
| | IPR | 9 | 12 | 75.0% |
| | LIB | 32 | 35 | 91.4% |
| | PUB | 2 | 2 | 100.0% |
| | RTO+UCO | RTO | 17 | 17 |
| Academic + Research | CMS | 6 | 6 | 100.0% |
| | CPU | 13 | 24 | 54.2% |
| | ELC | 11 | 17 | 64.7% |
| | FBA | 50 | 89 | 56.2% |
| | FED | 30 | 51 | 58.8% |
| | FLL | 28 | 49 | 57.1% |
| | FSH | 67 | 142 | 47.2% |
| | FST | 50 | 109 | 45.9% |
| | ICMS | 13 | 17 | 76.5% |
| | Total | | 489 | 810 |
| Administrative | | 221 | 306 | 72.2% |
| Academic + Research | | 268 | 504 | 53.2% |

Appendix II Calculation of Customer Satisfaction Index

All staff 2004

| <i>Attribute (1)</i> | <i>importance score (beta) (2)</i> | <i>beta weight (%) (3)</i> | <i>mean score of satisfaction (4)</i> | <i>satisfaction weight (5)</i> |
|-----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAB | 0.18 | 0.226751592 | 6.87 | 1.557783 |
| PO | 0.23 | 0.298089172 | 7.08 | 2.110471 |
| BAF | 0.15 | 0.187261146 | 6.85 | 1.282739 |
| GAB | 0.09 | 0.113375796 | 7.28 | 0.825376 |
| Library | 0.05 | 0.061146497 | 7.28 | 0.445146 |
| CSB | 0.16 | 0.205095541 | 7.17 | 1.470535 |
| PR | -0.07 | -0.091719745 | 6.9 | -0.63287 |
| Faculty Office | 0.00 | 0 | 0 | 0 |
| Total | 0.79 | 1 | 0 | 0 |
| | | | | 7.059185 |
| CSI | | | | 70.6% |

Administrative Staff 2004

| <i>Attribute (1)</i> | <i>importance score (beta) (2)</i> | <i>beta weight (%) (3)</i> | <i>mean score of satisfaction (4)</i> | <i>satisfaction weight (5)</i> |
|-----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAB | 0.24 | 0.307692308 | 6.94 | 2.135385 |
| PO | 0.19 | 0.250325945 | 6.94 | 1.737262 |
| BAF | 0.15 | 0.18904824 | 7.00 | 1.323338 |
| GAB | 0.17 | 0.224250326 | 7.31 | 1.63927 |
| Library | 0.03 | 0.04041721 | 7.30 | 0.295046 |
| CSB | 0.04 | 0.052151239 | 7.07 | 0.368709 |
| PR | -0.05 | -0.063885267 | 6.92 | -0.44209 |
| Faculty Office | 0.00 | 0 | 0 | 0 |
| Total | 0.77 | 1 | 0 | 0 |
| | | | | 7.056923 |
| CSI | | | | 70.6% |

Academic Staff 2004

| <i>Attribute (1)</i> | <i>importance score (beta) (2)</i> | <i>beta weight (%) (3)</i> | <i>mean score of satisfaction (4)</i> | <i>satisfaction weight (5)</i> |
|----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAB | 0.17 | 0.191160221 | 6.78 | 1.296066 |

| | | | | |
|-----------------------|-------|--------------|------|----------|
| PO | 0.23 | 0.251933702 | 7.22 | 1.818961 |
| BAF | 0.16 | 0.17679558 | 6.69 | 1.182762 |
| GAB | 0.02 | 0.024309392 | 7.25 | 0.176243 |
| Library | 0.01 | 0.009944751 | 7.27 | 0.072298 |
| CSB | 0.20 | 0.219889503 | 7.27 | 1.598597 |
| PR | -0.10 | -0.114917127 | 6.87 | -0.78948 |
| Faculty Office | 0.22 | 0.240883978 | 8.48 | 2.042696 |
| Total | 0.91 | 1 | 0 | 0 |
| | | | | 7.398144 |
| CSI | | | | 74.0% |

Students 2004

| Attribute (1) | importance score (beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) |
|------------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| REG | 0.16 | 0.228932584 | 6.64 | 1.520112 |
| SO | 0.21 | 0.289325843 | 6.75 | 1.952949 |
| Treasury Office | 0.12 | 0.168539326 | 6.79 | 1.144382 |
| CSB | 0.03 | 0.036516854 | 6.61 | 0.241376 |
| GAB | 0.08 | 0.109550562 | 6.67 | 0.730702 |
| Library | 0.00 | 0.005617978 | 7.55 | 0.042416 |
| Faculty Office | 0.12 | 0.161516854 | 6.73 | 1.087008 |
| Total | 0.71 | 1 | 0 | 0 |
| | | | | 6.718947 |
| CSI | | | | 67.2% |

All staff 2005

| Attribute (1) | importance score (beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) |
|----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAB | 0.048 | 0.064690027 | 7.06 | 0.456712 |
| PO | 0.243 | 0.327493261 | 7.07 | 2.315377 |
| BAF | 0.246 | 0.331536388 | 7.07 | 2.343962 |
| GAB | 0.143 | 0.192722372 | 7.12 | 1.372183 |
| PUB | 0 | 0 | 0 | 0 |
| Library | 0.057 | 0.076819407 | 7.42 | 0.57 |
| CSB | 0.13 | 0.175202156 | 7.36 | 1.289488 |
| PR | -0.125 | -0.168463612 | 6.86 | -1.15566 |

| | | | | |
|-----------------------|-------|---|---|----------|
| Faculty Office | 0 | 0 | 0 | 0 |
| Total | 0.742 | 1 | 0 | 0 |
| | | | | 7.192062 |
| CSI | | | | 71.9% |

Administrative Staff 2005

| Attribute (1) | importance score (beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) |
|-----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAB | -0.016 | -0.022346369 | 7.07 | -0.15799 |
| PO | 0.267 | 0.372905028 | 6.94 | 2.587961 |
| BAF | 0.24 | 0.335195531 | 7.1 | 2.379888 |
| GAB | 0.035 | 0.048882682 | 7.16 | 0.35 |
| PUB | | 0 | 0 | 0 |
| Library | 0.096 | 0.134078212 | 7.48 | 1.002905 |
| CSB | 0.15 | 0.209497207 | 7.2 | 1.50838 |
| PR | -0.056 | -0.078212291 | 6.91 | -0.54045 |
| Faculty Office | 0 | 0 | 0 | 0 |
| Total | 0.716 | 1 | 0 | 0 |
| | | | | 7.130698 |
| CSI | | | | 71.3% |

Academic Staff 2005

| Attribute (1) | importance score (beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) |
|-----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAB | 0.047 | 0.050483351 | 7.06 | 0.356412 |
| PO | 0.205 | 0.22019334 | 7.07 | 1.556767 |
| BAF | 0.257 | 0.276047261 | 7.07 | 1.951654 |
| GAB | 0.126 | 0.135338346 | 7.12 | 0.963609 |
| PUB | 0 | 0 | 0 | 0 |
| Library | 0.024 | 0.025778733 | 7.42 | 0.191278 |
| CSB | 0.103 | 0.110633727 | 7.36 | 0.814264 |
| PR | -0.104 | -0.111707841 | 6.86 | -0.76632 |
| Faculty Office | 0.273 | 0.293233083 | 8.02 | 2.351729 |
| Total | 0.931 | 1 | 0 | 0 |
| | | | | 7.419398 |
| CSI | | | | 74.2% |

Students 2005

| <i>Attribute (1)</i> | <i>importance score (beta) (2)</i> | <i>beta weight (%) (3)</i> | <i>mean score of satisfaction (4)</i> | <i>satisfaction weight (5)</i> |
|----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| REG | -0.013 | -0.017832647 | 6.81 | -0.12144 |
| SO | 0.278 | 0.381344307 | 6.75 | 2.574074 |
| Treasury Office | 0.184 | 0.252400549 | 6.79 | 1.7138 |
| CSB | 0.046 | 0.063100137 | 6.58 | 0.415199 |
| GAB | 0.018 | 0.024691358 | 6.59 | 0.162716 |
| Library | 0.063 | 0.086419753 | 7.56 | 0.653333 |
| Faculty Office | 0.153 | 0.209876543 | 6.83 | 1.433457 |
| Total | 0.729 | 1 | 0 | 0 |
| | | | | 6.831139 |
| CSI | | | | 68.3% |

All staff 2007

| <i>Attribute (1)</i> | <i>importance score (beta) (2)</i> | <i>beta weight (%) (3)</i> | <i>mean score of satisfaction (4)</i> | <i>satisfaction weight (5)</i> |
|----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAO | 0.13 | 0.171853857 | 6.90 | 1.186513 |
| AHR | 0.13 | 0.169147497 | 6.87 | 1.161384 |
| FO | 0.09 | 0.121786198 | 6.96 | 0.84818 |
| CMO | 0.17 | 0.232746955 | 6.83 | 1.589196 |
| Library | 0.04 | 0.047361299 | 7.39 | 0.350152 |
| ICTO | 0.15 | 0.204330176 | 7.28 | 1.486911 |
| IPR | 0.04 | 0.052774019 | 6.69 | 0.353306 |
| Faculty Office | 0 | 0 | 0 | 0 |
| Total | 0.74 | 1 | 0 | 0 |
| | | | | 6.975642 |
| CSI | | | | 69.8% |

Administrative Staff 2007

| <i>Attribute (1)</i> | <i>importance score (beta) (2)</i> | <i>beta weight (%) (3)</i> | <i>mean score of satisfaction (4)</i> | <i>satisfaction weight (5)</i> |
|----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAO | 0.13 | 0.171853857 | 6.90 | 1.186513 |
| AHR | 0.13 | 0.169147497 | 6.87 | 1.161384 |
| FO | 0.09 | 0.121786198 | 6.96 | 0.84818 |
| CMO | 0.17 | 0.232746955 | 6.83 | 1.589196 |

| | | | | |
|-----------------------|------|-------------|------|----------|
| Library | 0.04 | 0.047361299 | 7.39 | 0.350152 |
| ICTO | 0.15 | 0.204330176 | 7.28 | 1.486911 |
| IPR | 0.04 | 0.052774019 | 6.69 | 0.353306 |
| Faculty Office | 0 | 0 | 0 | 0 |
| Total | 0.74 | 1 | 0 | 0 |
| | | | | 6.975642 |
| CSI | | | | 69.8% |

Academic Staff 2007

| Attribute (1) | importance score (beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) |
|-----------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| AAO | 0.11 | 0.131611316 | 6.90 | 0.908671 |
| AHR | 0.12 | 0.141451415 | 6.87 | 0.97122 |
| FO | 0.08 | 0.103321033 | 6.96 | 0.719579 |
| CMO | 0.16 | 0.196801968 | 6.83 | 1.343764 |
| Library | 0.02 | 0.020910209 | 7.39 | 0.154593 |
| ICTO | 0.13 | 0.157441574 | 7.28 | 1.145702 |
| IPR | 0.06 | 0.067650677 | 6.69 | 0.452901 |
| Faculty Office | 0.15 | 0.180811808 | 7.59 | 1.371928 |
| Total | 0.81 | 1 | 0 | 0 |
| | | | | 7.068358 |
| CSI | | | | 70.7% |

Students 2007

| Attribute (1) | importance score (beta) (2) | beta weight (%) (3) | mean score of satisfaction (4) | satisfaction weight (5) |
|------------------------|------------------------------------|----------------------------|---------------------------------------|--------------------------------|
| REG | 0.11 | 0.152958153 | 6.48 | 0.991169 |
| SAS | 0.15 | 0.212121212 | 6.72 | 1.425455 |
| Treasury Office | 0.16 | 0.225108225 | 6.8 | 1.530736 |
| ICTO | 0.11 | 0.158730159 | 6.44 | 1.022222 |
| CMO | 0.02 | 0.023088023 | 6.56 | 0.151457 |
| Library | 0.03 | 0.037518038 | 7.47 | 0.28026 |
| Faculty Office | 0.13 | 0.19047619 | 6.61 | 1.259048 |
| Total | 0.693 | 1 | 0 | 0 |
| | | | | 6.660346 |
| CSI | | | | 66.6% |

Appendix III Questionnaires

Separate documents are attached.