UNIVERSIDADE DE MACAU
UNIVERSITY OF MACAU

| UM | **USER SATISFACTION SURVEY 2011** |

ǀFinal Report ǀ

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UM User Satisfaction Survey 2011

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Executive Summary

The overall Customer Satisfaction Indexes (CSI) are constructed based on the four survey data, which are 70.6%, 71.9%, 69.8% , 70.1% and 70.3% in 2004, 2005, 2007, 2009 and 2011 respectively, indicating a small fluctuating pattern. Taking the CSI, overall satisfaction scores and specific figures of some units into consideration in the last five year surveys, the satisfaction levels tend to getting small increase for admin staff and a downward trend for academic staff and students respectively in 2011.

AAO is the most important factor that contributes to the CSI while CMO and ICTO are the two least important factors in this regard in the staff sample. In the student sample, REG, Faculty Office and SAS are the three most important areas that contribute to the CSI while library is the least important factor.

For staff, about 82% of them claim that services meet or exceed their expectations in 2011, which is 1% point lower than that in 2009. Besides, 64% of academic staff and 88% of admin staff claim that services meet or exceed their expectations, and their mean score (-0.06 and 0.52 respectively) difference is 0.58. The overall evaluation of academic staff is -0.06 which is lower than "exactly meet their expectation" (0), at the same time, that of admin staff is 0.52 indicating an attitude between "exactly meet their expectation" (0) and "slightly exceed their expectations" (1). Therefore, it shows that the overall expectation of admin staff is higher than that of academic staff.

For students, about 78% claim that services meet or exceed their expectations in 2011 which is 3% point higher than that in 2009. It shows a little change for the staff and student samples.

65% of the staff claim that they sometimes or always make recommendation of administrative services to others while 31% of students sometimes or always do so in 2011. There is a slight decrease (2% respectively) for the staff sample and the student sample from last year.

Seventy-two percent of the staff claim that the overall performance is improving which is 5% point less than that in 2009. While 40% of students have the same opinion which is 6% point lower than that in 2009.

Twenty-one percent of the staff and thirty-five of the students replied that they encountered a service problem in the past year. The problems mainly happen in the areas of classroom facilities, computer networking, communications, and procedure for reimbursement claims, whereas frontline service, computer rooms/computers, library are the main areas that students encounter problems.

Services like "Cleaning", "Procurement", "Reimbursement procedures", "Computer support", and "Maintenance" are the top five that are suggested be improved by staff, while "Canteen service", "Computer room service", "Library service", "E-purse value adding", "Cleaning" and "Sports complex venue rental" are the most frequently mentioned services that need to be improved by students.

Demographic characteristics like staff type correlate the overall satisfaction with the performance of FO, Library, HRO, service year correlate satisfaction with Library in staff sample.

It is found, in staff sample, "IT support service for computing facilities in offices", "Disbursement by auto-pay service", "Politeness and friendliness of the Library staff", "Maintenance techniques", "Staff welfare application and processing", "Media service", "Semester class scheduling", have the most significant effect on the satisfaction with ICTO, FO, Library, CMO, HRO, IPR and AAO respectively. While in student sample, "Suitability of class scheduling", "Student counseling service", "Procedure for paying fees & charges", "Supporting service in computer rooms", "Hygiene of resting areas on campus", "Politeness and friendliness of the Library staff" are the most important factors to the satisfaction with REG, SAS, FO, ICTO, CMO and Library respectively.

Introduction

The University of Macau conducted user satisfaction surveys every 2 years 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 2011 survey adopted the same approach as that used in 2004, 2005, 2007 and 2009. 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 respondents 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?
- What demographics correlate satisfaction?
- What are the important factors that contribute to overall satisfaction with administrative units?

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 2011 survey adopted three kinds of data collection methods. For the staff sample, we mainly used online survey and supplemented by paper-pencil questionnaire. For the student sample, we contacted them by email and 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 online and telephone interviews with all registered students. Eleven UM students were trained to interview, to exercise supervision, and to perform data-input tasks. The sampling results are listed as follows.

1. Staff Sample

- A total of 1018 staffs were informed to complete the online survey at the first stage (4th April to 13th May, 2011) and to complete the email and paper-pencil surveys at the second stage (29th April to 18th May, 2011).
- A total of 553 completed questionnaires were returned, among which 520 were from online survey and 33 from paper-pencil surveys, counting an overall return rate of 54.3%[1] which is little higher than that of the 2009 survey (50.8%). The return rate from the administration units is 69%, whereas the return rate from the academic and research unit is 34%.
- The sampling error is ±2.8% at the 95% confidence level.

2. Student Sample

- A total of 1200 students were randomly selected from the total of 6939 active students of the University, interviewed by online survey (4th April to 6th May, 2011) and then Computer-Assisted Telephone (19th April to 21st April, 2011). A total of 623 completed questionnaires were collected, among which 289 were from online survey and 334 from telephone survey.
- A total of 800 students were informed to complete the online survey at the first stage, at the end a total of 298 students responded the questionnaire and 289 successfully completed it, counting response rate of 97%[2]. Then a total of 911 students which included the first stage incomplete samples combined with another 400 students were interviewed by Computer-Assisted Telephone Interviewing (CATI) system at the second stage. At this stage, a total of 348 students responded the questionnaire

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[1] return rate=the number of completed questionnaire/ the total number of interviews;

[2] Response rate= the number of completed questionnaire/ the number of responded the questionnaire.

while 563 were not available to be interviewed due to busy line, not being at home and other technical reasons. In the end, 334 were successfully interviewed through telephone, counting a response rate of 96%.

- Eventually, a total of 646 students were contacted, 623 available questionnaires were received, counting an overall response rate of 96.4%
- The sampling error is ±3.7% at the 95% confidence level.

III. Questionnaire

The same questionnaires were adopted as that of the year 2009 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)

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 has 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 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 services 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 Expectation	Slightly Exceed Expectation	Somewhat Exceed Expectation	Completely Exceed Expectation

A score of 0 would mean that expectations were exactly met—nothing more, nothing less. Scores above 0 indicate that the 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 1.1 An illustration of derived-importance approach to CSI (modeling results)

Attribute (1)	importance score (beta) (2)	Beta weight (%) (3)	mean score of satisfaction (4)	satisfaction weight (5)	CSI(6)
AAO	.27	.3375	6.9	2.32875	
HRO	.18	.225	7.1	1.5975	
FO	.16	.2	6.9	1.38	
CMO	.13	.1625	7.3	1.18625	
PUB	0	0	7	0	
Library	.19	.2375	7.3	1.73375	
ICTO	0	0	7	0	
IPR	.13	.1625	6.9	1.12125	
Faculty Office	0	0	7.3	0	
Total	.8				8.226 (82.26%)

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, AAO 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.