APPENDIX A

i) Strategy Map

Draft UM’s Strategy Map

ii) Strategic Steps

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Action by</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Attract more postgraduates (especially PhD), and post-doctorates and research fellows</td>
<td>DVC – A&amp;I</td>
<td>3.1.1</td>
</tr>
<tr>
<td>2 Establish UM graduate school</td>
<td>DVC-A&amp;I</td>
<td>-</td>
</tr>
<tr>
<td>3 Market programmes to African, Middle Eastern and South Asian countries</td>
<td>DVC – A&amp;I</td>
<td>3.4.1</td>
</tr>
<tr>
<td>4 Use financial reserves to upgrade accommodation facilities for staff and postgraduates</td>
<td>VC &amp; Bursar</td>
<td>4.6.1</td>
</tr>
<tr>
<td>5 Upgrade International Relations Unit to increase and enhance international linkages.</td>
<td>DVC-A&amp;I,Bursar</td>
<td>3.4.1</td>
</tr>
<tr>
<td>6 Use financial reserves to support research activities to attract quality foreign academic staff and to result in high quality journal papers</td>
<td>VC, DVC-A&amp;I,Bursar</td>
<td>3.3.2</td>
</tr>
<tr>
<td>7 Establish UM as center for research on humanities, social sciences and environment</td>
<td>DVC-R&amp;I</td>
<td>Faculty level KPI</td>
</tr>
</tbody>
</table>
iii. Internal Scorecard

<table>
<thead>
<tr>
<th>Area</th>
<th>Strategic Goals</th>
<th>Sub-goals</th>
<th>KPIs</th>
<th>2007 Target</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial</td>
<td>1.1 Increase in total funding</td>
<td>1.1.1 Increased income from non-governmental sources</td>
<td>Income Growth Income from Non-governmental sources:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Alumni (HEP = tuition fees &amp; from other activities)</td>
<td>5% increase from 2006</td>
<td>5% increase from 2007</td>
<td>5% increase from 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Corporate Support UM Holdings</td>
<td>Get company to be operational &amp; to break-even</td>
<td>Break-even</td>
<td>5% return on equity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Fee (Portfolio) (IFS) (Finance)</td>
<td>5% increase from 2006</td>
<td>5% increase from 2007</td>
<td>5% increase from 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- UPCOM</td>
<td>10% increase from 2006</td>
<td>10% increase from 2007</td>
<td>10% increase from 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- UMCCED</td>
<td>5% increase from 2006</td>
<td>5% increase from 2007</td>
<td>2% increase from 2008</td>
</tr>
</tbody>
</table>

iv. University Scorecard

DRAFT: UM CORPORATE LEVEL BSC - CAUSE AND EFFECT RELATIONSHIP OF STRATEGIC GOALS AND KPIs STRUCTURE

<table>
<thead>
<tr>
<th>Strategic Goals</th>
<th>KPIs (Measures)</th>
<th>Target 2007</th>
<th>Min Exp Perf 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1. Positive perceptions by society / stakeholders</td>
<td>C1.1 MOHE Ranking</td>
<td>Top 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C1.2 THES Ranking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2. Satisfied Employers</td>
<td>C2.1 Employers' perception of UM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C2.2 Perception of university as a whole by key stakeholders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3. High Quality Research Outputs</td>
<td>C3.1 No of patient/case reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C3.2 No of products commercialized</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C3.3 No of cited journals / faculty staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C3.4 No of Recognitions / Awards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4. Excellent Graduates</td>
<td>C4.1 Average GPA UG</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4.2 Average GPA PG</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4.3 Awards received by students from external recognized bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4.4 Students' soft skills index</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4.5 Average IT Skills Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4.6 English Proficiency Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C5. Commercialised Products</td>
<td>C5.1 % increase in revenue growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C5.2 No of products / services commercialized</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C5.3 No of potential commercialised products / services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C6. Adequate Funds</td>
<td>C6.1 Increase income from government &amp; non-governmental sources</td>
<td>5% increase from 08</td>
<td>2.5% increase from 08</td>
</tr>
</tbody>
</table>
APPENDIX B:

Interview Questions: Strategic Planning Unit (SPU), University of Malaya

1. What is the strategic planning process practiced by UM?

2. When the strategic planning process is usually conducted?

3. In terms of strategy formulations, what are the inputs used in formulating new and reviewing existing strategies?

4. Does SPU perform any external and internal evaluation prior to formulating new or reviewing existing strategies? (*i.e* SWOT analysis, PESTEL analysis, environmental scanning, Porter’s 5-forces analysis, scenario planning, etc)

5. In terms of strategy formulation and rationalization, does UM perform a series of workshop in communicating down the top level aspirations and at same time, gathering input and consensus using a bottom-up approach?

6. Who are the people involved in the development of strategic planning of UM (including its BSC activities)?

7. How is the cascading (communication) session of the newly formulated strategies conducted?

8. What is the role of BSC in communicating down the strategies of UM to all staff? To what extent BSC is used for this purpose?

9. Besides BSC, what are the other tools used by UM in managing and measuring performance of UM as well as its people?

10. How is the tracking of BSC achievement being conducted? (*i.e* tracked and responded to monthly, quarterly, or half-yearly)

11. How is the target for BSC being set? What are the “baseline” used for setting up the current targets? Was there any benchmarking study conducted prior to target setting?

12. In terms of target, is there element of process improvement (*i.e* target increase) reflected in the subsequent years’ targets?

13. How is input from ARES, Times Higher Education Supplement (THES), Ministry of Higher Education and the survey from other sources taken as part of strategy formulation and target setting?

14. How is total alignment of BSC objective, targets and initiatives (and also alignment of individual KPI) to UM’s strategic planning conducted?
15. How is the KPI of each staff especially academicians are set according to BSC and its alignment to UM strategic planning? What is the reasonable number of KPIs to be carried by each academician? Why?

16. How often is the gap analysis being performed (comparing targets against actual performance)?

17. How often is UM’s Vision and Mission statement being reviewed?

18. In your opinion, what is meant by “excellence” in academicians? What are the areas that would constitute excellence in academicians?

19. Do you think BSC (and e-BSC) would be able to show some indicators of excellence of academicians?

20. What is your view with regards to our proposal in developing e-BSC to help manage and measure the performance excellence of UM and its staff especially academicians?
APPENDIX B (I)

Verbatim Statement by Strategic Planning Unit

Interviewer: How do you actually start with the strategic planning process? What are the processes and the procedures?

SPU: I joined August last year, I can explain to you what I have observed and what I have been involved with since I joined. The strategic planning process started with the part with the formation of the Strategic Planning Steering Committee. This is what happened when the new VC joined the university. According to her (Dato Rafiah Salim) instructions, the Strategic Planning Steering Committee was set up, made up of the Vice Chancellor, Deputy Vice Chancellor, and selected deans, not all the deans, and of course Professor Nazari and I was in there as the assistant to Prof (Nazari). At first, the task of the Strategic Planning Steering Committee was to review our mission and vision statements. That began in July 2006. I do not know how many times it was reviewed before that but I don’t think it was reviewed that many times. Dato’ Rafiah when she joined, she made it a point to have the mission and vision statement reviewed. That’s the first thing she did.

When was the last review…I jump from question 1.

Interviewer: Yes, there is that question

SPU: When was the last mission and vision statement reviewed? That I am not sure but I can find out for you and give you the information later on. The strategic planning steering committee met several times. I think in the second meeting, it was decided that feedback should be obtained from the staff and the students of the university as to what the new mission and vision statement should be and it was also decided that feedback should be obtained using a survey, as to what people think should be the core values for the university.

Interviewer: When was this survey?

SPU: It was decided in mid July 2006 and the survey was collected immediately after this. People were given about a month or so to give their feedback. In August, I joined in August, the Steering Committee met again 2 or 3 times, reviewed the feedback received.

Interviewer: From the students…

SPU: Staff and students and then a draft mission and vision statement and core values was prepared and then it was refined and moderated by the Steering Committee through a series of meetings. And then by October 2007 (end of recording).

Interviewer: How often are performance reviews conducted?

SPU: Performance reviews… annually. The cycle itself is a 2 year cycle.

Interviewer: What does that mean by 2 year cycle?

SPU: That means, when we set the target, it’s not just for the next 12 months, it’s also for…

Interviewer: The following year…?

SPU: 24 months, yes. And even 36 months but basically twice, I mean, 2 years planning cycle.

Interviewer: What are the inputs used in formulating new and existing strategies?

SPU: The inputs, you cannot escape from using actual performance data to see how we are performing in crucial areas, especially research, since now UM is a research university. So research would mean, principally, publication and also teaching performance. Actual data, and also our view of what is going on out there, in the market. Now that can come from several sources, of course based on opinions and observations and views from people in the Steering Committee and also what we can read from the press.

Interviewer: Do you benchmark yourself with other universities?

SPU: Not at the moment but there is one local private university that actually had contacted us and proposed to the VC. That is very recent. They want to benchmark themselves with us. For us benchmarking will come in the form of the rankings that are released by the Ministry of Education and also lately the one Ministry of Higher Education. Those are the benchmarking that we use. And other inputs are policies and plans as issued by the Ministry of Higher Education. Back in August the ministry had come up with Malaysian Higher Education Strategic Plan, so our strategic plan also have to be aligned with that one. In fact, they want us to submit our strategic plan by the middle of this month.
(November 2007) to them, to the ministry, one which conforms with the strategic plan of
the Ministry of Higher Education. So those are the main inputs.

Interviewer: Does SPU perform any external and internal evaluation prior to formulating new or
reviewing existing strategies? (i.e SWOT analysis, PESTEL analysis, environmental
scanning, Porter’s 5-forces analysis, scenario planning, etc)

SPU: Oh yes of course. We perform a SWOT analysis to come up with a list of strategic plans
that was derived, that had also was approved by the Lembaga Pengarah in August 2006.
So we do perform external and internal evaluation before formulating new strategies.

Interviewer: Only SWOT?
SPU: We did only SWOT. We didn’t… SWOT and scenario planning. PESTEL analysis, no
we didn’t use that. Neither did we use environmental scanning or Porter’s 5-forces
analysis. Only two SWOT analysis and scenario planning

Interviewer: Yes, because these 2 can be used in general, where as the others are more towards
business environment.

SPU: More narrow right?

Interviewer: In terms of strategy formulation and rationalization, does UM perform a series of
workshops in communicating down the top level aspirations and at same time, gathering
input and consensus using a bottom-up approach?

SPU: Yes, since February 2007, Prof Nazari has been asked by the VC to conduct a workshop
for top members of the university who hold position of leadership. That means the dean.
(end of recording)

Interviewer: How is the tracking of BSC achievement being conducted? (i.e tracked and responded
to monthly, quarterly, or half-yearly)

SPU: Oh the tracking from now, with the UMISIS system up and running, it will be
automated tracking.

Interviewer: But at the moment?
SPU: At the moment, it is manually. We have to ask for feedback from the various faculties
for the data to be submitted to one central collection point. Right now, it is manual. But
with the UMISIS system, we are positive it, the tracking and monitoring can be done
much more frequently, at least quarterly.

Interviewer: How are the targets for BSC set?
SPU: First the targets will be proposed by the Strategic Planning Steering Committee and
then presented to the various faculties for negotiations. For feedback and negotiations.
Because they got to refer to their staff members also.

Interviewer: What are the “baseline” used for setting up the current targets? Was there any
benchmarking study conducted prior to target setting?

SPU: Baselines used is those actual performance….

Interviewer: Yes, like earlier the inputs, right? And the policies from the ministry?
SPU: And also with what we know of the performance of other universities.

Interviewer: For the following questions, I think they have more or less the same answer also.
SPU: Yes.

Interviewer: is there any element of process improvement? So far?
SPU: When we set the target, we set the target for the next 4 years, 2007 – 2010. And of
course for every year, the targets we do increase as we want to see gradual improvement
over time.

Interviewer: So far before this, were there any targets that were set?
SPU: To the depth of my knowledge, no.

Interviewer: So that means, this year is the first….?
SPU: Since the new VC came in May 2006 when we actually formalized the whole system
for the university. It may be the case that in previous years the working people from
faculty to faculty, depending on the individual heading the faculty, you know, it is
possible that sometimes the dean there, talking about the past, feels that all this faculties
that are not doing as well should do some research and he or she should set the target
with the staffs there. It is a possibility but to the best of my knowledge it was not
formalized. Never been. (end of recording)

Interviewer: When you get the results, like the current performance, what are the actions that you
take? Corrective actions?

SPU: That is a question I cannot answer but to compare because in terms of repercussions.
You’re talking about what if the targets are not achieved?

Interviewer: Yes

SPU: That is a policy matter to be decided by the higher management. But I would imagine that, you know, there will be some repercussions. Otherwise why would we want to do this target setting but I would imagine that any repercussions would involve corrective actions rather than any punitive actions. In the ‘Borang KPI Individu’ that has been disseminated to everybody, we do state in part of the form that people who fail to achieve their targets will be requested to send a written explanation as to why they were not able to achieve the target set before that. From then on it is up to the management what further actions to take.

Interviewer: What are the challenges you face when you want to implement new strategies?

SPU: Resistance to change. That is very normal and expected but it is still quite challenging. Resistance to change, you know. Getting people leave their comfort zone. If their comfort zone results in a positive and excellent results for the university, it’s ok but very often, you know, the comfort zone will just retard and pull back the university. I think targets and KPIs, that jolts people out from their comfort zone and there is a bit of resistance also. And of course it not just UM, I suppose. It’s quite applicable to many organisations in Malaysia. Sometimes the changes in leadership comes so often and every new leader that comes in implement new things and then after 2 or 3 years, he goes away and then the initiative that he started would just be abandoned. So people get a bit frustrated on that particular score. The next person that comes in tries to introduce something new, the response from everybody is ‘last time, you know, so-and-so started this and now, who’s picking it up? Aren’t you picking it up? Why are you starting this new thing? Why don’t you carry on with the thing to…’. That can be a challenge.

Interviewer: I notice also that in our faculty, the deans change, so I was wondering how do you ensure that the targets that are set earlier will be implemented later on?

SPU: That is why Prof Nazari had the idea to implement them as an ISO procedure to make certain that future leaders will abide by it (end of recording).
APPENDIX C

Interview Questions: Previous and Current Deans in Faculty of Computer Science & Information Technology (FCSIT), University of Malaya

1. What is the strategic planning process practiced by the faculty?

2. When the strategic planning process is usually conducted?

3. In terms of strategy formulations, what are the inputs used in formulating new and reviewing existing strategies?

4. Does the faculty perform any external and internal evaluation prior to formulating new or reviewing existing strategies? (i.e SWOT analysis, PESTEL analysis, environmental scanning, Porter’s 5-forces analysis, scenario planning, etc)

5. In terms of strategy formulation and rationalization, does the faculty perform a series of workshops in communicating down the top level aspirations and at same time, gathering input and consensus using a bottom-up approach?

6. Who are the people involved in the development of strategic planning of faculty (including its BSC activities)?

7. How is the cascading (communication) session of the newly formulated strategies conducted?

8. Besides BSC, what are the other tools used by the faculty in managing and measuring performance of the faculty as well as its people?

9. How is the tracking of BSC achievement being conducted? (i.e tracked and responded to monthly, quarterly, or half-yearly)

10. How is the target for BSC being set? What is the “baseline” used for setting up the current targets? Was there any benchmarking study conducted prior to target setting?

11. In terms of target, is there any element of process improvement (i.e target increase) reflected in the subsequent years’ targets?

12. How is the total alignment of the faculty’s objective, targets and initiatives (and also alignment of individual KPI) to UM’s strategic planning conducted?
13. How is the KPI of each staff especially academicians set according to BSC and its alignment to UM strategic planning? What is the reasonable number of KPIs to be carried by each academician? Why?

14. How often is the gap analysis being performed (comparing targets against actual performance)?

15. How often is faculty’s Vision and Mission statement being reviewed? When was the last review?

16. In your opinion, what is meant by “excellence” in academicians? What are the areas that would constitute excellence in academicians?

17. Do you think BSC (and e-BSC) would be able to show some indicators of excellence of academicians?

18. What is your view with regards to our proposal in developing e-BSC to help manage and measure the performance excellence of UM and its staff especially academicians?

19. What are the challenges faced during strategy formulation? During performance measurement?

20. How is the weightage for each measure determined? How is the total score for each measure calculated? What is the basis used in determining these weightage/targets?

21. What further actions are taken after the results of performance measurement is obtained?
APPENDIX C (I)

Verbatim Statement by Faculty of Computer Science and Information Technology

Deans

Interviewer: What is the strategic planning process practiced by the faculty?
DEAN: This should follow the strategic plan officially expressed in a paper to the university management in 2005 (every 5 years, broken down yearly under each factors for the 5 years). Sometimes the Dean who changes every 2 years forgets about this and may propose a plan which is contradictory to the initially proposed plan. Therefore when a person assume the post of Dean or heads of Dept this plan must be studied carefully and periodically gauge to monitor the level of achieving the plans.

Interviewer: When is the strategic planning process usually conducted?
DEAN: Rightly every 5 year cycle, it follows the university strategic plan. Hence for the years 2005-2009 the plan would have formulated in 2004.

Interviewer: In terms of strategy formulations, what are the inputs used in formulating new and reviewing existing strategies?
DEAN: Inputs are usually centrally driven. And broken under various aspects, such as research directions, curriculum planning, student intake and performance, publications, human resources, infrastructure and facilities, etc.

Interviewer: Does the faculty perform any external and internal evaluation prior to formulating new or reviewing existing strategies? (i.e SWOT analysis, PESTEL analysis, environmental scanning, Porter’s 5-forces analysis, scenario planning, etc)
DEAN: Usually the plans are derived following a retreat where groups of academic staff brainstorm and think out the plans and its implementations.

Interviewer: In terms of strategy formulation and rationalization, does the faculty perform a series of workshops in communicating down the top level aspirations and at same time, gathering input and consensus using a bottom-up approach?
DEAN: It follows a two-way approach, MOHE to Universities, University management to Deans, Deans mobilize their faculty teams to formalize the plan and present this to management.

Interviewer: Who are the people involved in the development of strategic planning of faculty (including its BSC activities)?
DEAN: Dean, Deputy Deans, Heads of Dept, Select members of the academic staff chosen by the Heads.

Interviewer: How is the cascading (communication) session of the newly formulated strategies conducted?
DEAN: The strategic plan would be in the form of a written document and it is the job of the Heads to disseminate this to members of their dept. In some cases, sub-teams are formed within each dept to think out of how to implement, monitor and access. Of course this is the ideal situation. The Dean should make sure that heads do this so that academic staff not in manahement teams are not marginalized.

Interviewer: Besides BSC, what are the other tools used by the faculty in managing and measuring performance of the faculty as well as its people?
DEAN: Measurements has always been categorized under the usual aspects; teaching performance, research quantity and quality, publication and dissemination of knowledge, networking and consultation work, faculty committee work and training and personal development. These are dispersed under the Dean, the TDs and Heads.

Interviewer: How is the tracking of BSC achievement being conducted? (i.e tracked and responded to monthly, quarterly, or half-yearly)
DEAN: At the moment it is ad hoc and very print based to the point that it a main source of irritation for a lot of lecturers to be asked for the same things again and again. There should be a system where lecturers can update their activities and performance periodically. This should be the source used by the Deans, Heads and TDs when they want to collate information for reports.
Interviewer: How is the target for BSC being set? What are the “baseline” used for setting up the current targets? Was there any benchmarking study conducted prior to target setting?

DEAN: Rightly the target should be set centrally. But in doing this a different set of BCS should be devised for say, lecturers, senior lecturers, assoc profs and full professors. The apportionment of scores and weights should also be different. Also there must be a difference between those in the Arts, social sciences, sciences, technology and medical sciences. The nature of the jobs are different.

Interviewer: In terms of target, is there any element of process improvement (i.e target increase) reflected in the subsequent years’ targets?

DEAN: KPI must be high as it should measure quality not quantity.

Interviewer: How is the total alignment of the faculty’s objective, targets and initiatives (and also alignment of individual KPI) to UM’s strategic planning conducted?

DEAN: The university have not finalized their required KPIs and are giving faculties to set their own. This of course led to confusion and in some instances the lowering of standards to make as many people as possible achieve the minimum KPI standard.

Interviewer: How is the KPI of each staff especially academicians set according to BSC and its alignment to UM strategic planning? What is the reasonable number of KPIs to be carried by each academicians? Why?

DEAN: Your question is irrelevant as for me KPIs must be centrally driven, only then can the university achieve what it aims to achieve. The University management must be the “pusher” not the faculties. In the private sector this is so.

Interviewer: How often is the gap analysis being performed (comparing targets against actual performance)?

DEAN: No gap analysis is done at the faculty level.

Interviewer: How often is faculty’s Vision and Mission statement being reviewed? When was the last review?

DEAN: Last reviewed before the last ISO audit. Again whatever it is, the vision and mission must support that of the university’s.

Interviewer: In your opinion, what is meant by “excellence” in academicians? What are the areas that would constitute excellence in academicians?

DEAN: Excellence is performing way above the normal level. Everybody teach but if a lecturer gets above 4.5 student’s evaluation for 3 years then he or she must be an excellent lecturer. If the KPI is for 2 refereed journal article, then the person who published more than 2 then can be considered as excellent.

Interviewer: Do you think BSC (and e-BSC) would be able to show some indicators of excellence of academicians?

DEAN: The excellence should be reflected at the Dept, Faculty, University level. If the university says it wants 1,000 refereed journal articles this year than the faculty and dept that contributes highest to this indicator than must be clearly indicated in reports at the various level. A system that generate a good report output from the mass of information entered by staff would be a god sent!

Interviewer: What is your view with regards to our proposal in developing e-BSC to help manage and measure the performance excellence of UM and its staff especially academicians?

DEAN: Good luck. Test it at the Faculty level first

Interviewer: What are the challenges faced during strategy formulation? During performance measurement?

DEAN: Clear formulation of the KPIs so that the system can easily score performance.

Interviewer: How is the weightage for each measure determined? How is the total score for each measure calculated? What is the basis used in determining these weightage/targets?

DEAN: You have to look how other universities are doing theirs. UIA as far as I know have some sort of BCS but it is not automated.

Interviewer: What further actions are taken after the results of performance measurement is obtained?

DEAN: Reward accordingly, and there must be room for negotiations especially for those who are performing. Face to face negotiations is good but has never been implemented.
APPENDIX D

Survey Form

Faculty of Computer Science & Information Technology

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Individual Performance Planning and Measurement for Academicians through the Development of e-Balanced Scorecard (e-BSC)

SOO HSAIO PEI
Faculty of Computer Science and Information Technology
University Malaya,
Kuala Lumpur, Malaysia
Email: hpsoo0912@perdana.um.edu.my

This survey seeks your opinion on the development of an electronic performance measurement system in higher learning institutions. It consists of 20 questions which are separated into 4 sections. The highlighted issues in this survey include analysis on your present performance measurement system (if any) and the acceptance of e-BSC that we intend to develop. Your feedback will be used to identify priority areas/divisions for further actions to ensure the development meets your needs. I am very grateful for your time and your willingness to complete this survey. Thank you.

Definition of Terms:

Performance Measurement : The use of statistical evidence to determine progress toward specific defined organizational objectives

Balanced Scorecard : A strategic planning and management concept that is used extensively in business and industry, government, and non-profit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals

Metrics : Parameters or ways of quantitative and periodic assessment of a work or process that is to be measured

Performance Evaluation : A method by which the performance of an employee is assessed

Learnability : The capability of a software product to enable the user to learn how to use it
Instructions:
*Please tick (√) the relevant box or boxes provided and/or fill in the spaces where appropriate.*

Section 1: Background/Personal Information

i. Faculty:
   - □ Faculty of Computer Science & Information Technology (FSKTM)
   - □ Others, please specify:_____________________________

ii. What is your current position?
   - □ Lecturer (PhD/Master) □ Senior Lecturer
   - □ Associate Professor □ Professor
   - □ Others, please specify:_____________

iii. What is the basis of your current employment?
   - □ Full time □ Part time
   - □ Others, please specify:_____________

iv. Which age group do you belong to?
   - □ 21-30 years □ 31-40 years
   - □ 41-50 years □ 50 years and above

v. How long have you been serving for the University/Faculty in your current position?
   - □ Less than 1 year □ 1 to 3 years
   - □ More than 3 to 5 years □ More than 5 to 10 years
   - □ Above 10 years
Section 2: Awareness of University’s/Faculty’s mission and vision

1. Your University/Faculty have well-understood vision and mission. Do you agree with this?
   □ Yes □ No
   If yes, has it been revised?
   □ Yes □ No
   If yes, when was the last time it has been revised?
   □ Within 1 month ago □ Within 1-6 months ago
   □ Within 6-12 months ago □ Within 3 years ago
   □ More than 3 years ago □ Unsure

Section 3: Analysis of current performance system for academicians in your University/Faculty

2. Does your University/Faculty use any form of performance measurement to determine the achievements of an individual?
   □ Yes □ No
   (If No, please proceed to Section 4)

3. Which of the following is/are included in your current performance measurement system?
   (You may tick (√) more than one option. Please indicate when the selected option was first implemented in your University/Faculty)

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>&lt;=1</th>
<th>&gt;1-2</th>
<th>&gt; 2</th>
<th>Unsure</th>
</tr>
</thead>
</table>
   □ Benchmarking | ( ) | ( ) | ( ) | ( ) |
   □ Key Performance Indicators (KPIs) | ( ) | ( ) | ( ) | ( ) |
   □ Appraisals | ( ) | ( ) | ( ) | ( ) |
   □ Six Sigma | ( ) | ( ) | ( ) | ( ) |
   □ Total Quality Management (TQM) | ( ) | ( ) | ( ) | ( ) |
   □ Others, please specify:______________ | ( ) | ( ) | ( ) | ( ) |
4. Does your University/Faculty perform any methods of rating/evaluations currently?

□ Yes  □ No

If yes, what kind of rating/evaluation being implemented?

*(You may tick (✓) more than one option)*

□ Peer Ratings  □ Employers Ratings  
□ Self-Evaluation  □ Student Ratings  
□ Administrator Ratings  □ Others, please specify: __________________________

5. Does the current performance measurement system include metrics in evaluating your achievement?

□ Yes  □ No

*(If No, please proceed to Question 7)*

6. Are the metrics often being updated?

□ Yes  □ No  
□ Unsure

If yes, how frequent is the update made?

□ Within half a year  □ More than a year  
□ Within a year  □ Unexpected/Unsure

7. How often is performance evaluation being conducted?

□ Monthly  □ Quarterly  
□ Every half a year  □ Annually

□ Others, please specify: ______________
8. Is your current performance measurement system computerized?
   □ Not at all (e.g. all documents are retrieved, filled up and submitted manually)
   □ Partially (e.g. Forms are downloaded/retrieved online, printed out and submitted manually)
   □ Fully (e.g. all activities are done electronically/online)

9. Does higher management hold meetings/discussions with you after reviewing your results through the performance measurement system?
   □ Yes □ No

10. The current performance measurement system in your University/Faculty is able to….
    *(Please tick (✓) according to your agreement)*

    | Disagree | Unsure | Agree |
    |----------|--------|-------|
    a. Provide evaluative information on your overall performance |
    b. Provide clear expectations on your overall performance |
    c. Promote excellence and effectiveness in work performance |
    d. Identify staff development needs |
    e. Provide opportunity for promotion and career development |
    f. Provide an environment in which ideas for improvement are encouraged |
    g. Promote better communication between higher management with staff |
    h. Promote staff morale |
    i. Promotes accountability for performance |
    j. Promotes the effectiveness of alignment towards university’s/faculty’s strategies |
    k. Encourage and support staff to have positive work and develop skills |
11. How do you rate the complexity (learnability) of your current performance measurement system?

□ Easy to learn/use     □ Moderate/Average
□ Complex               □ Very Complex

12. Overall, how do you rate the quality (effectiveness) of the current performance measurement system which is being used in your University/Faculty?

□ Not suitable       □ Suitable but improvements are needed
□ Adequate and effective □ Very effective

Section 4: Definition of excellence among academicians and how they prefer their performance to be measured through the e-Balanced Scorecard approach.

13. In your opinion, what constitute(s) excellence in academicians? You may elaborate each of your answer.

(You may tick (✓) more than one option)

□ Teaching/Learning:__________________________________________________
__________________________________________________________________

□ Research & Supervision:
__________________________________________________________________
__________________________________________________________________

□ Publications (Conferences/Journals/Books):
__________________________________________________________________
__________________________________________________________________

□ Patents and other IPR:
__________________________________________________________________
__________________________________________________________________

□ Commercialization of Research Products:
__________________________________________________________________
__________________________________________________________________

□ Administration Duties:
__________________________________________________________________
Contribution to society:
__________________________________________________________________
__________________________________________________________________

Others, please specify:
__________________________________________________________________
__________________________________________________________________

14. How would you rate the following tasks from 1 to 5 according to importance?
[1 = Least Important; 5 = Most Important]
(Please tick (✓) your selection. You may select the same rating for different tasks)

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Research Development and Commercialization</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Networking (National/International)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Administration and Human Resource Development</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Consultancy, Services and Other Activities</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

15. What do you think a good electronic performance measurement system should consist of?
(You may tick (✓) more than one option)

- Web-based system, so that users can access at anytime and anywhere.
- Provides strategies/goals and cause-and-effect mapping to allow users to have the overall view of the flows and its relations.
- Provides automation in calculation of score accumulated by each individual.
- Provides visualization of performance measurement results (e.g. graphs, charts, image).
- Provides an account for each employee to perform his/her own performance evaluation activities (e.g. keep in record all achievements and tasks that have been done before submitting to top management for approval)
- Allows management to set expected targets or goals and measures to be achieved for every individual.
☐ Provides alarming function which sends announcement, notice or reminder to the staff if certain actions need to be taken at a certain time due to poor performance
☐ Others, please specify: ____________________________________________

16. Have you ever heard of a performance measurement technique named “Balanced Scorecard” which was introduced by Kaplan and Norton in 1992?
☐ Yes ☐ No

“Balanced Scorecard (BSC) is a performance measurement scheme which views the performance of an organization into four perspectives”

17. Do you agree with the division of performance evaluation according to these four perspectives to produce a clear and adequate understanding of your University’s/Faculty’s performance?
☐ Yes ☐ No

18. Which of the following perspectives does your current performance scorecard or measurement system include?
(You may tick (✓) more than one option)
☐ Financial ☐ Internal Business Process
☐ Customer ☐ Learning and Growth
☐ Others, please specify:__________________________________________
19. Do you agree with the suggestion of putting a performance measurement system completely electronically as web-based system?

☐ Yes  ☐ No

If yes, which of the following BENEFITS below that you agree could be obtained?

(You may tick (✓) more than one option)

☐ The electronic/computerized system will make things easier to handle and save time.

☐ Users can access to the system anywhere and at anytime

☐ It provides better interaction between higher management and staffs as users can provide enquiries, feedbacks or replies at a minimized time.

☐ Modifications/updates can be done directly through the online-based system which removes the manual processes.

20. How do you rate your agreement on the usefulness in developing this project?

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

General Comments: If you have any general comments, please do not hesitate to write them in the space below

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

*********************************************************************

Thank you for your time and participation in this survey
APPENDIX E

SAS Documents

SAS® for Performance Management

*Don’t just manage performance—improve it*

To know which actions will improve your organization’s performance, you need a deep understanding of the factors that influence it. That understanding requires much more than a pretty dashboard sitting on top of basic reporting applications.

Organizations that rely on a few shallow capabilities for performance management often find it difficult to pinpoint the root cause of performance issues, identify business opportunities, make agile decisions or sustain profitable growth.

SAS provides the widest, deepest range of offerings for performance management. All our software is built on a single enterprise intelligence platform that seamlessly integrates data integration, storage, business intelligence and analytic intelligence.

We offer solutions to help you answer tough questions in every functional area of your enterprise. Our industry-specific solutions are also tailor-made to the unique demands of your market. In particular, SAS offers:

- An end-to-end enterprise intelligence platform.
- Dashboarding and alerts.
- Strategy planning and modeling.
- Predictive scorecarding.
- Cost and profitability management.
- Integrated budgeting, planning and reporting.
- Campaign management, customer analytics and marketing performance management.

- Workforce analytics.
- IT resource, service and cost management.
- Procurement analysis.

SAS for performance management brings context and direction to business intelligence initiatives and supports a continuous process for improvement across the enterprise.

Together, all the capabilities SAS provides let you to do more than manage the performance of your organization—they help you improve it.

Better align resources with strategies

When you understand which measures drive your business, you can begin to align operations toward those drivers and, in turn, your long-term goals. SAS provides predictive scorecarding capabilities that let you tie traditional scorecard features such as traffic lights and speedometers to powerful predictive analytics.

Using these capabilities, you can verify your strategy by analyzing historical trends or by creating forecasts and simulations.

Ultimately, SAS helps you identify, quantify and prioritize improvement opportunities, mitigate threats and measure results. With the intelligence that SAS provides, you can ensure that resources are aligned across departments. Then see how changes in one department might affect another’s performance.
Making Change Happen
Portuguese public administrators think strategically with SAS®

Industry
Public Sector

Business Issue
Provide business intelligence that fosters the performance of every employee in the Portuguese public sector.

Solution
SAS® integrates data from Oracle, SAP and other systems, analyzes the information and presents executive-level reports in a dashboard format.

Benefits
SAS® provides strategic information more quickly and more accurately than ever before.

The Portuguese National Institute for Public Administration, or INA, provides training, consulting and research activities for nearly 16,000 public sector employees each year. Through its training programs, INA offers more than 500 courses. Its public policy research is often applied at both national and international levels. And its mission to foster the performance of every employee in the public sector is a demanding goal.

SAS helps INA reach that goal with business intelligence solutions that support information management and knowledge-based strategies for change.

“We’ve been using SAS to help us get a better view of our management responsibilities,” says Manuel João Peres, Vice President of Information Services. “And we also use SAS when we want to help the Portuguese public administration design objectives and review their performance using information that is available in many different systems.”

For example, INA recently used SAS to design an information management board for each of the country’s public hospitals. Likewise, many of the country’s police departments are turning to SAS for balanced scorecard initiatives that help measure and define strategy through a series of key targets.

At the national level, INA has implemented a data warehousing and balanced scorecard initiative with SAS. The new system integrates an Oracle database with SAP R/3 data and data from a proprietary budgeting system. The result is an executive-level dashboard, designed with SAS Strategic Performance Management, which replaces a series of paper-based reports that executives used in the past to make decisions.

“We try to help the leaders of the Portuguese public administration make change happen,” says Peres. “SAS plays a very important role in that process.”

Improved accuracy, reduced time to intelligence
Before implementing solutions from SAS, Peres says the agency faced a number of obstacles in delivering business intelligence. “We had to extract data from paper printouts, and we also had to extract information from each of these three different systems. It was a process that took us much more time, and the number of mistakes we had was much higher.”

With SAS, INA now has timely, accurate information – and a better understanding of its constituents: “The data we extract can be quite useful for the decision makers of our company,” says Peres. “How many students are actually enrolled in a particular area or segment of courses? How long does it take to get an invoice to be paid? What is the perception of our students for a particular teacher? The meaning of information that we get from SAS is really important for us.”

With its new balanced scorecard, INA uses SAS to monitor, manage

APPENDIX F
236
SYSTEM EVALUATION QUESTIONNAIRE

e-Balanced Scorecard (e-BSC) System

Soo Hsaio Pei
Faculty of Computer Science and Information Technology
University Malaya,
Kuala Lumpur, Malaysia
Email: hpsoo0912@perdana.um.edu.my

Objective:
This questionnaire is conducted to gather data on user acceptance of the e-BSC Performance Measurement System for academicians. It consists of 2 sections.

I am very grateful for your time and your willingness to complete this questionnaire. Thank you.

Section 1:
Please circle the most appropriate score for each question given below pertaining to each system module.

**A: Staff Module**

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Provide understandable and clear information (Balanced Scorecard information, Strategy Maps, KPIs information)
   - 1 2 3 4 5
2. The target change request method is suitable to be used
   - 1 2 3 4 5
3. The guidelines and help function give staff a clear understanding of how KPIs are selected and the how score calculation is performed
   - 1 2 3 4 5
4. Provide ease of use and convenience for staff to fill up their performance records through the different types of forms
   - 1 2 3 4 5
5. The system is able to show how KPIs are cascaded from the strategic objectives in the predefined strategy map which are categorized in the four perspectives of BSC
   - 1 2 3 4 5
6. The information of staff’s performance result (score calculation, performance charts) is sufficiently shown
   - 1 2 3 4 5
7. The sequence of processes in measuring the staff’s performance is logical
   - 1 2 3 4 5

**B: Appraiser Module**

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Sufficient and relevant information is displayed
   - 1 2 3 4 5
2. The options in search functions are adequate and sufficient
   - 1 2 3 4 5
3. Screen sequence is logical
   - 1 2 3 4 5
4. The marking process is straightforward and understandable
   - 1 2 3 4 5
5. Appropriate viewing constraints are applied for different
levels of appraisers (i.e. Dean and Head of Department)

6. The functionality of performance tracking is suitable
7. Sufficient information for the review on performance results

-------------------------------------------------------------------------------------------------------------

C: System Administrator Module

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Easy to use and straightforward
2. The options in search functions are adequate and sufficient
3. Provide adequate warnings for drastic actions (i.e. deleting data)
4. Provide constraints to prevent illegal operations (i.e. disable functions where there is referential integrity constraints, only numeric values for IC number)
5. Provide sufficient features for system management and maintenance

-------------------------------------------------------------------------------------------------------------

D: Faculty Module

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Easy to use and straightforward
2. Method of selecting faculty KPI from the corporate scorecard shows alignment of strategies
3. Method of assigning the first appraiser for each department is suitable and sufficient
4. The staff and faculty performance charts provides relevant information to reflect achievements.
5. Provide adequate warnings for drastic actions (i.e. deleting inf006F)
6. Provide constraints to prevent illegal operations (i.e. disable functions where there is referential integrity constraints, limit each department to one first appraiser only)

7. Provide sufficient features for faculty performance management and planning

**Section 2: Evaluation of e-BSC System**

Choose and circle the most appropriate score for each question given below pertaining to the e-Balanced Scorecard System.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Easy to use
2. e-BSC has all the functions and capabilities that it should have
3. Provide evaluative information on academician’s overall performance
4. Provide clear expectations on your overall performance
5. Provide better communication between higher management with staff
6. Promotes the effectiveness of alignment towards University’s/Faculty’s strategies
7. Encourage and support staff to have positive work ethics and develop skills
8. The overall layout of the system is easy to remember and familiarize one’s self with.

9. How do you rate the complexity (learnability) of e-BSC system?
10. Overall, how do you rate the quality (effectiveness) of e-BSC performance measurement system to be used in your University/Faculty?

☐ Not suitable  ☐ Suitable but modifications are needed  
☐ Adequate and effective  ☐ Very effective

11. Please rate the improvements (if any) in this system compared to the current performance measurement system used.

<table>
<thead>
<tr>
<th>Significant degradation</th>
<th>No improvement</th>
<th>Not sure</th>
<th>Slight Improvement</th>
<th>Significant improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

General Comments:
Other comments about e-BSC (if any):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you for your kind participation

APPENDIX G
<table>
<thead>
<tr>
<th>Respondent</th>
<th>Modules</th>
</tr>
</thead>
</table>
| **Respondent 1** | **Staff** - allow dean to select KPIs for the whole faculty, which will then be used for selecting KPIs relevant to different levels of staffs  
**Appraiser** - View score given for all staffs in the dept before final score is given to staffs.  
**Faculty** - Mail server to ease communication (Auto-information of username & password by email) |
| **Respondent 2** | **Staff** - Roll back final submission, in case dateline is postponed  
- Allows negotiation of final scores if there is dissatisfaction  
- HOD(1st Appraiser) is first asked for target approval, then only forward to dean for approval with the HOD approval status  
- No date or month for “book type”  
- Quantity and quality (total amount) of grant, both should be considered  
- Position held in a project should be considered  
- Faculty Performance Review:  
  -> View by number of staffs achieved target  
  -> Find out how achievement of dept is viewed? View the total number of the KPI result (number of published paper) for the whole department (balanced concept) or count individual performance?  
- Generate a line graph to see the score given to each staff so that appraiser can do  
**Appraiser** - View score given for all staffs in the dept before final score is given to staffs.  
**Faculty** - Mail server to ease communication (Auto-information of username & password by email) |
| **Respondent 3** | **Staff** - No date or month for “book type”  
- Quantity and quality (total amount) of grant, both should be considered  
- Position held in a project should be considered  
- HOD(1st Appraiser) is first asked for target approval, then only forward to dean for approval with the HOD approval status  
- Show marks given by HOD while dean performs evaluation  
**Appraiser** - View score given for all staffs in the dept before final score is given to staffs.  
**Faculty** - Mail server to ease communication (Auto-information of username & password by email) |
<table>
<thead>
<tr>
<th>Respondent</th>
<th>Staff</th>
<th>Appraiser</th>
<th>Faculty</th>
<th>Administrator</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provide more dropdown lists to ease the convenience of data insertion (ie. Grade for each position, ISI scopus journals)</td>
</tr>
<tr>
<td></td>
<td>-Be more specific /detail of the KPI records to increase the efficiency of data insertion (ie. Ranking for publication-ISI Scopus, First author, second author)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Allow staffs to change target only after 6 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Performance Indicator: Add in yellow light for minimum target achievement</td>
</tr>
<tr>
<td></td>
<td>-Take into account how appraisers &amp; dean are appraised</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Take into account how if appraiser is changed in the middle of the year, role change from appraiser to staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>-During scorecard setting, two options may be provided for the dean if cancellation is to be done: i. Cancel the entire activity and restart again from the beginning for next time ii. Keep what have been inserted and continue from that point for next time, but the status is stated to be incomplete</td>
<td></td>
<td></td>
<td>-Directly import KPI list from SPU instead of entering in one by one or directly allow SPU to key in the KPI into the system</td>
<td>-Modules should be named specifically Staff-&gt; Academician Staff Module Faculty-&gt;Faculty Management Module -Different lecturer may have different scorecard (according to their level: Lecturer, Senior Lecturer, Professor) -Ensure who are the potential users of this system especially to build the different scorecards -Allow flexibility for system (ie List the criteria or...</td>
</tr>
<tr>
<td>Respondent</td>
<td>Modules</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff</strong></td>
<td>Appraiser</td>
<td>Faculty</td>
<td>Administrator</td>
<td>General</td>
<td></td>
</tr>
<tr>
<td><strong>Respondent 7</strong></td>
<td>- date of publications are subjective (dates of journal articles are not specific) - feedbacks / reason after final submission should not allow empty space to be entered. - auto let user update according to number of records to be entered (system should auto know if target is only 1 record, then put in B1, extras put in B2). - teaching load include details of no. of credit hours of subject taught, supervision, no. of students</td>
<td>- tracking/ review performance of staff should have hyperlink at the name of the staff. No need additional column for that - KPI graph result should average out KPI (i.e. no. of staff x 2 and compare with actual total journals achieved) - doesn’t agree with balanced concept that a dept is considered performing if targets are all achieved even though contribution is made by one or few individuals and not all. (Except if 50/50 considered ok). Seniors should naturally outperform juniors while juniors must improve. - KPI graph also must show if the faculty performed in overall.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KPI in categories for different level of staffs, allow the auto creation of new category) -use better terminologies for system (i.e. academics instead of academician which is too general) -prepare modules for training purposes that can do automatic deletions (from bottom up)

**APPENDIX H**
General

i. Change Password

1. Click on the "Change Password" link on the right panel of the page.

2. In the password window (shown below), enter your current/old password in the first box.

3. Enter your new password (as you would like it to be) in the second box.

   **Note:** Password must have legal characters and be 5-8 characters in length

4. Confirm your new password by retyping the new password in the third box.

5. Click the "Change" button.
i. Performance Measurement: Contracting

1. Click on the "Contracting" link on the top icon bar of the page.

2. Your personal information and status of contact will be displayed.

   Contract Status:
   [Agreement between staff and appraisers on the targets set for all KPIs]
   i. Under Negotiation : Discussion/request is still in process regarding on the targets.
   ii. Contracted : Agreement has been confirmed between staff and appraiser.

3. Details for all KPIs will be displayed in table. The list of KPIs is selected by the faculty.
   Measures and weightage [with the total of 100%] are set by faculty as well.

4. Click on the "Confirm to contract button to confirm your performance evaluation contract.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Target (Min.Quantity)</th>
<th>Weightage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awards Number of</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Research</td>
<td>2</td>
<td>20</td>
</tr>
</tbody>
</table>

5. Your performance tracking will only starts once confirmation has been done.

ii. Performance Measurement: Tracking
1. Click on the "Tracking" link on the top icon bar of the page.

2. Details and number of records for each KPI will be displayed in the table of PART 1.

<table>
<thead>
<tr>
<th>RECORD(S)</th>
<th>STRATEGY OBJECTIVE</th>
<th>KPI</th>
<th>MEASURE</th>
<th>WEIGHTAGE (%)</th>
<th>TARGET (Quantity)</th>
<th>ACHIEVEMENT (Quantity)</th>
<th>PERFORMANCE INDICATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>View/Edit/Delete</td>
<td>Excellent Research Programs</td>
<td>#1.1</td>
<td>Number of Recognition Awards</td>
<td>10</td>
<td>5</td>
<td>Target Achieved</td>
<td></td>
</tr>
<tr>
<td>Add</td>
<td>Excellent Research Programs</td>
<td>#1.2</td>
<td>Involvement in Research Project</td>
<td>20</td>
<td>2</td>
<td>Below Target</td>
<td></td>
</tr>
</tbody>
</table>

   i. Achievement : Indicates the total of KPI records that you have achieved. Once it reaches the required target, a message of "Target Achieved" will be displayed.

   ii. Performance Indicator : Indicates the status of the particular KPI whether you have passed the required target or having records below the target.

3. Click on the "Add" icon at the "RECORD(S)" column to add new records for the particular KPI. The "Add" icon will be disabled when you have inserted the sufficient records in achieving the required target.

   In the "Add" window, insert all the required information. Click the "Save" button to save the new record.

4. Click on the "View/Edit/Delete" icon at the "RECORD(S)" column to open the particular KPI Window.

   In the KPI window, the details all the KPI records will be displayed:
**ADD RECORD:**
Click on the "Add" icon to add new record. The "Add" icon will be disabled when you have inserted the sufficient records in achieving the required target.

*Note:* Before performing the action of deletion or update, select the records that you want to perform the action on by checking the checkbox attached to each KPI record.

Click on the "View" icon to enter into KPI window that displays all the records.

**DELETE RECORD:**
Click on the "Delete" button once records selection has been made. A confirmation box will be displayed. Click "OK" to delete the selected record(s).

*Note:* If there is record inserted in PART 2 as the additional record for the particular KPI, the additional record will automatically be inserted into PART 1 as KPI record.

**UPDATE RECORD:**
Click on the "Update" button, once records selection has been made. This will lead you to the KPI update window. After changes have been made, click "Save" to save the changes.

5. Details and number of *additional* records for each KPI will be displayed in the table at PART 2.

Adding, updating and deletion actions are performed similarly as the table at PART 1.

*Note:* You are only allowed to add additional records for a certain KPI after you have achieved the required target for that particular KPI except for other achievement records.
6. During the end of evaluation period where all the records for all KPIs have been inserted into the system, final submission can done by clicking on the "Final Submission" icon.

7. You are required to submit a reason if you unable to achieve all required targets, else you are enquired to give a feedback or opinion before final submission can be done. Click on the "Submit" button when you have confirmed all the information and ready to be evaluated.


The evaluation report shows the staff's performance result achieved from the performance measurement processes which are done during the whole evaluation period. Evaluation starts from the point when contract is confirmed and ends once the staff has submitted his/her final performance report.

1. To view your performance records, click on the "Evaluation Report" icon at the menu bar on top of the page.

2. If you have gone through two or more than two times of evaluation with this e-BSC system, a performance chart will be displayed, showing the history records of your final score for each evaluation. This chart able to show (max of 5 records) the comparison of your performance achievements from time to time.

3. The table of your detailed performance scores for each KPI for PART 1 and PART 2 will be displayed in the tables.
4. A pie chart is drafted to illustrate your KPIs target achievement result.

5. In the end, the final score is displayed to show how score is calculated.

### iv. Request Target Change

Initially, target for each KPI is set accordingly by Faculty after discussion has been done. However, staffs can send request mail to their respective appraisers to request for target change with their suggestion of target.

1. Request of target change for a particular KPI can be performed during **contracting** and **tracking** process by clicking on the "Send New Request Mail" button to enter into the request mail window.

2. History of requested mail can be viewed by clicking on the "Requested Mail" link which displayed together with the number of request mail records that have been sent.

2. In the request mail window (shown below), the list of KPIs will be displayed. Select the particular KPI that you want to make the target changes on.

3. Insert the target that you want to request in the field of "Requested Target".
4. Include your reason as well to support your target suggestion. Reminder: Only valid reasons will be accepted for the approval.

5. Click on the "Submit Request" button to send the request mail to the respective appraiser for the approval.

6. Once request has been approved, your target for the particular KPI will be changed automatically.

**Appraiser Module**

i. **Track Staff**

1. Click on the "Staff Review" icon on the menu bar on top of the page.
2. Choose one of the options to search for a staff

A list of staffs will be displayed:

3. Click on the "Review" link at the end of the staff's record that you want to view. This will direct you to the performance report page of the staff.
Note: You are only allowed to track staff’s performance after contract confirmation has been done by the staff.

ii. Evaluate Staff

1. Click on the "Evaluate Staff" icon on the menu bar on top of the page.
2. Choose one of the options to search for a staff

A list of staffs who have not been evaluated will be displayed:

3. Click on the "Evaluate" link at the end of the staff’s record that you want to view. This will direct you to the evaluation page of the staff.

Note: You are only allowed to evaluate staff’s performance after performance report has been submitted by the staff.

4. At the staff’s evaluation page, insert your marks in the score box situated at the right of each KPI record.
Note: Insert marks between the given range

5. Click on the "Submit Marks" button at the bottom of the page to submit your evaluation marks.

### iii. Review Staff Performance

1. Click on the "Staff Review" icon on the menu bar on top of the page.
2. Choose one of the options to search for a staff

   ![Performance Review: Staff](image)

   A list of staffs will be displayed:

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Position</th>
<th>Contract</th>
<th>Report</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melissa Soo</td>
<td>Artificial Intelligence</td>
<td>Lecturer</td>
<td>Contracted</td>
<td>Submitted</td>
<td>Review</td>
</tr>
<tr>
<td>Crystal Lee</td>
<td>Artificial Intelligence</td>
<td>Associate Professor</td>
<td>Under Negotiation</td>
<td>In-progress</td>
<td>Review</td>
</tr>
</tbody>
</table>

3. Click on the "Review" link at the end of the staff’s record that you want to view. This will direct you to the performance report page of the staff.
4. The evaluation report shows the staff’s performance result achieved from the performance measurement processes which are done during the whole evaluation period. Evaluation starts from the point when contract is confirmed and ends once the staff has submitted his/her final performance report.
If the staff has gone through two or more than two times of evaluation with the e-BSC system, a performance chart will be displayed, showing the history records of the staff's final score for each evaluation. This chart able to show (max of 5 records) the comparison of the staff's performance achievements from time to time.

![Performance Chart Example](image)

5. The table of the staff’s detailed performance scores for each KPI for PART 1 and PART 2 will be displayed in the tables.

![Table Example](image)

4. A pie chart is drafted to illustrate the staff's KPIs target achievement result.

![Pie Chart Example](image)

5. At the end of the page, the final score is displayed to show how score is calculated.
iv. Review Faculty Performance

1. Click on the "Faculty Review" icon on the menu bar on top of the page.

2. The number of staffs who have achieved the required target for each KPI will be displayed in a table.

<table>
<thead>
<tr>
<th>KPI</th>
<th>BSC Perspective</th>
<th>KPI Description</th>
<th>Number of Staffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP11</td>
<td>Internal Processes</td>
<td>Number of Recognition/Awards</td>
<td>0</td>
</tr>
<tr>
<td>IP12</td>
<td>Internal Processes</td>
<td>Involvement in Research Project</td>
<td>1</td>
</tr>
<tr>
<td>IP16</td>
<td>Internal Processes</td>
<td>Supervision</td>
<td>2</td>
</tr>
<tr>
<td>IP21</td>
<td>Internal Processes</td>
<td>Teaching Evaluation Survey</td>
<td>3</td>
</tr>
<tr>
<td>LG2.1</td>
<td>Learning &amp; Growth</td>
<td>Member of Professional Bodies</td>
<td>2</td>
</tr>
<tr>
<td>LG2.5</td>
<td>Learning &amp; Growth</td>
<td>Committee/Reviewer/Editorial in International publications/conferences</td>
<td>1</td>
</tr>
<tr>
<td>LG4.1</td>
<td>Learning &amp; Growth</td>
<td>Enhance ICT &amp; Technology</td>
<td>1</td>
</tr>
</tbody>
</table>

3. Below the table, the bar graphs of faculty’s performance will be illustrated.