4 Employability of students -KPIs as per College goals

4.1 Chapter introduction
The college management after the strategic meeting of the executives and all the staff, listed out four major goals and one of the goals is employability of the college students after their successful completion of studies in the college. The purpose of this chapter is to trace the process of identifying KPIs for the second goal of the college (i.e) employability of the students after completion of the undergraduate degree programs in the college.

4.2 Employability of graduating students
Employability has been defined as ‘a set of achievements skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations.’ These skills include: communication, leadership, problem solving and team working (The higher education academy Engineering subject centre, 2011).

As per this report, employers look for students having communication, leadership, problem solving and team working skills.

The college has a unique department referred as ‘Educational and Professional Development (EDP). All students, irrespective of the Engineering Program they have opted (Please refer Appendix.. for the programs offered by the college), have to study modules having following aims so that the students learn to:

Conduct them professionally and observe high standards of Personal and Professional Ethics,

Be reflective professionals and can identify personal strengths and weaknesses and draw up an action plan to translate weaknesses into strengths,

Be effective team workers with strong interpersonal and intra personal skills,

Be aware of workplace based challenges and are prepared to cope with them,and,

Have an aptitude for leadership with creative and innovative ideas to explore business opportunities in Oman
The above objectives are also publicised in the college website (Caledonian College of Engineering, 2013). These objectives are in alignment with the skills specified by higher education academy, engineering subject centre of UK.

However, not all the students passing out get jobs immediately, and many of them have to wait for an indeterminate period of time and face agonising periods of uncertainty before placements happen. As reported by the author (Ariyawansa, 2008) even if one of the main objectives of the university education is to improve the skills of students to face the challenges in external society, they have to leave from the university without having sufficient self-confidence and assurance for better employments.

Ariyawansa also talks about the attitude of the graduates and quotes the Presidential Committee (In Sri Lanka) appointed to identify problems of graduates -that there are three main reasons for the graduates’ unemployment problem such as; “negative attitudes”, “lack of communication skills”, and “lack of English knowledge”. These traits appear to be common even amongst the fresh graduates passing out from the colleges in Oman.

A study made by the author (Gallaher, 1989) focusses on the learning difficulties of Arab students in a medical college in Saudi Arabia. The author mentions that the difficulties of medical students in coping with English were protean, pervasive and persistent.

However, the authors Jewels & Albon (Jewels, 2012) (rightly point out that many university teachers assume that there is a correlation between language competency and success at a university; though, it is probably inconsiderate to believe that the language competency alone leads to better learning outcomes

There is no one panacea, for the employment issue of fresh engineering graduates. However, it is possible, that all the stakeholders (students, staff and the management of the institute) contribute to increase the employability of the graduates.

The measure of contribution is in developing KPIs and monitoring the parameters.
4.3 KPIs for enhancing the employability of the graduates

Developing KPIs for enhancing the employability-from students’ perspective: As mentioned earlier, students can help themselves, by having clarity about their own need for self-improvement and a determination to improve their communication skills and English knowledge.

A survey conducted in the college in 2012, revealed that students show not much enthusiasm in becoming better in their English communication skills (Survey report in Appendix C).

Further, from the responses to the survey, it is also noted that one third of the students lack the motivation to improve their language and it is really disconcerting. The cause for the lack of motivation is the need to learn the English language in the Arab society.

The lack of interest or motivation can also be ascribed to the need to communicate in a society in a language other than their own (Arabic). In the case of the Arab world, Arab learners have little opportunities to use the foreign language in their society. As a result, many problems occur when they study at a university where the medium of instruction is a foreign language like English as per author (Al Khasawneh, 2010).

However, the author, (Froilan, 2009) has a different take on the subject. The author mentions that the Arab learners speak their mother tongue whenever they are, should not take the blame, as to why they have slow communicative development in English. According to the author, the ineffective teaching and learning process also contribute to this general problem. In perspective, if a student spends four years are more in a professional college, where the medium of instruction is English, and still, if their English language ability is much to be desired, then authors notion, definitely needs a closer second look.

If it is the lack of motivation or the curriculum or the teaching, ultimately it is the goal that should be attained- that is the students should find placements after their graduation – without long periods of waiting.

The following KPIs in Table 4-1, give an indication of the effectiveness of the employment opportunities offered by the students.
No | Indicator / KPI Code | KPI Measurement |
--- | --- | --- |
1 | Graduate students availability | St.5-Number of students passing out every year  
St.6-Number of students registering with college for employment |
2 | Graduate finishing programs | St.7-Number of students attending finishing programs of the college  
St.8-Percentage of students attending the finishing programs (with total number of graduate students) |
3 | Job fairs | St.9- Number of graduate students attending the job fair.  
St.10-Percentage of graduate students attending the job fair. (At the time of job fair all students attend the job fair, including level 1 students.)  
St.11-Number of student applications submitted for jobs:  
St.12- Number employed due to job fair |
4 | Student internship during the program | St.13-Number of students completing internship  
St.14- Percentage of students completing internship (compared to total students in the final year) |

Table 4-1 Employability (Students Perspective)

**KPIs for enhancing the employability of the graduates- from staff perspective:**
The teaching staffs’ contribution in enhancing the employability of students reflects in the students’ performance at the time of his/her assessment by the employer. In addition to class room teachings, it is important that the students get exposure in terms of regular industrial visits, during their program duration.

As per Shamel, M et al (Shamel) report, the Industrial visits provides the students and programs with “dynamic” real time feedback that is very useful in the program learning outcomes process. The authors suggest a methodology, by which, the teaching staff, prepares a pre visit data/information collection, and informs the students, the input/output of the process, equipment’s applications and safety precautions adopted. After the visit, students’ understanding of the visit is assessed. This way, the students learning is authenticated by practical inputs and exposure. The teaching staff can make the industrial visits truly effective by giving proper inputs to the students and by adopting appropriate methodology of pre and post assessment of the visit.

It is important that each teaching department organises such industrial visits for the students and this criteria form the basis for the staff KPI, as in table 4-2.
<table>
<thead>
<tr>
<th>No</th>
<th>Indicator / KPI Code</th>
<th>KPI Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Industrial visits of students with teaching staff.</td>
<td>Number of industrial visits organized by each Engineering department.  &lt;br&gt;Staff.5- Mechanical &amp; Industrial Engineering department&lt;br&gt;Staff.6-Electronics and Computer Engineering department&lt;br&gt;Staff.7- Built and Natural Engineering department</td>
</tr>
</tbody>
</table>

Table 4-2 Employability staffs’ Perspective

KPIs for enhancing the employability of the graduates- from management perspective:.As reported by Harvey et al and cited by Dr.Crebert,G (Crebert, 1999),employers expect the students to function in the workplace, be confident communicators, good team players, critical thinkers, problem solvers and, in addition, to be adaptive, adaptable and transformative people capable of initiating as well as responding to change. It would be difficult for any college/university to guarantee that all their students would possess the skills expected by the employers. However, it would be the responsibility of the college management to ensure that the students are given ample opportunities to learn the skills expected by the employers. The KPIs listed in Table 4-3, here reflects the opportunities provided by the college to the students to learn the generic skills and be ready to meet the expectation of the employers.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator / KPI Code</th>
<th>KPI Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employment opportunities generated by the management of the institute.</td>
<td>M.7-Number of companies participating in the job fair&lt;br&gt;M.8-Percentage increase in participation compared to previous year.</td>
</tr>
<tr>
<td>2</td>
<td>Interaction with industry.</td>
<td>M.9- Number of occasions when college invited industrial personnel for interaction with students/staff/management&lt;br&gt;M.10-Number of different industrial personnel visiting college for interaction with students/staff/management.</td>
</tr>
<tr>
<td>3</td>
<td>Internship to the students</td>
<td>M.11-Number of companies providing internship to the students.</td>
</tr>
</tbody>
</table>

Table 4-3 Employability Management perspective

The emphasis in this research is not just identification of KPIs but also monitoring of KPIs by the management so that the pertinence of the performance is realized by everyone linked to the parameter. In some cases of KPIs, it is possible that the system itself has to be improved for the KPI to be effective. For instance, in the case of KPIs (Code Staff 5, 6 &7) relating to industrial visits, the spirit of the KPI hinges on the knowledge gained by the students after the industrial
visit. Keeping track of the number of visits alone is not going to be beneficial either to the teaching institution or the students.

The teaching staff should ensure a system of pre and post assessment (of visit), so that the number of visits effectively reflects a possible increase in students gain of generic skills. This kind linkage is to be analysed and established for each of the KPI.

4.4 KPI Links

It is possible that the college adopts the KPIs, but the success of KPI and its usefulness will be evident only if the KPIs are well embedded in the college system and all the stakeholders are aware of the preparation and links that are required prior to its installation.

For instance, each of the KPIs listed above need prior fitting of certain activity elements. The KPI map facilitates understanding of these elements. The mapping of these parameters is referred as KPI links. The term KPI link is coined by the author as it is found to be not in use in any of the literatures. The map gives the KPI selected and connects the KPI measurements and this in turn is connected with the supporting activity elements.

Graduate students availability St.5. The KPI mapping links are as given in Figure 4-1.

Figure 4-1 KPI Link Employment(Student)

Graduate finishing program - KPI mapping Links: From the two KPI maps, it must be clear that unless the building blocks are in place (support links needed for successful installation), effectiveness of the KPIs will be very much muted.
The above two KPIs also bring out another important link that needs to be created by the college in the information system. It is required that a separate web page is created for the students employability, which should be frequently assessed by the students to know –not only the employment opportunities but also a develop links such as the syllabus for the finishing school, and the feedback from the students on its effectiveness.

Referring Figures 4-1 to 4-2, the first map indicated the installation and creation of web page for the employability of the students and the second one gives additional elements such as the syllabus and the feedback.

Students must be in a position to scan the feedback of other students as well and that would motivate more students to participate and make the feedback more a dynamic one. There should be a staff(s) assigned to give answers to students’ feedback. This kind of system could prove very useful and in the chain of events change the trend towards more positive factor for employment of the students.
Many universities in the west prepare their students as to how to face the job fair companies. As per the information posted by Virginia Tech, advised the students not to talk about the salary and benefits straight away and let the employer initiate the discussion on this topic. According to them Job fair is not the appropriate place to start discussion about the compensation package. The context can be different for Sultanate of Oman and hence the organizing staff should be able to brief the students in the appropriate manner before they meet the job fair company executives.

Figure 4-3 gives the KPI first link in respect of job fairs.
According to ASME report (Abrams, 2011), the internship is not just a training ground for students, or an opportunity for employers to get some work done on the cheap. Increasingly, employers are drawing all their hires from their internship programs. If the above report is to be taken seriously, then, it is imperative that all students graduating are placed as interns in jobs, even, prior to graduation. According to a newspaper report (Ramya, 2013), at the regional workshop on 'AICTE-CII Survey of Industry-Linked Technical Institutes 2013' it was emphasized that the idea was "not to create jobs, but to improve employability".

It is essential that the college management and staff inform the students suitably that the internship could lead to employment and the purpose of the internship is to make the students gain workplace skills. As this will be the first time the students take up a job like commitment, it is necessary that the college institutes a set up that would guide the students during this period of internship. Singapore Management University (https://singapore-management-csm.symplicity.com/) mentions that these internships practices offer students real world insights and exposures to actual working life, an experiential, foundation to their career choices, and the chance to build valuable business networks. As per their website, the typical internship period would be ranging between 10-16 weeks. Students could also take a semester off to embark on a local or overseas internship stint. SMU also has a web page in their portal – career service management system – a
similar website page creation is suggested to the College for more effective monitoring of the entire training/job creation facilities for the graduating students.

**Industrial visits arrangement by staff: KPI Links:**

- Staff.5- Number of Industrial visits organized by M&IE
- Staff.6- Number of such visits by E&CE
- Staff.7- Number of such visits by BNE
- Student awareness of the benefits
- Pre & post assessment of visits.

**Figure 4-5 KPI Link Industrial visit (staff)**

Referring Figure 4-5, the students can realize the benefits only if the staff arranging and accompanying the Industrial visits of students, gives due importance not only to the event of the visit—but also treat the visit itself as a process by proper inputs prior to the visit and a post assessment of the gains by the students. Employment opportunities through Job fairs-KPI links:

- Job fairs by the college.
- M.7- Number of companies participating in the job fair.
- M.8- Percentage increase in the number compared to
- Details of graduates awaiting placement.
- Possible job vacancies in students’ information website of college.
- Post fair follow up for students’ placement.

**Figure 4-6 KPI Link Job fair (Management)**
Follow up is a key element in getting placements for the students. It is possible that the participating firm requires additional slots to be filled in after the fair. The department entrusted with the task, should be prompt in their responses, as otherwise, the firms get a wrong signal, and may not even show interest in future participation in the job fair. (Figure 4-6)

**Industry interaction –KPI Links:**

The report (Edmondson, 2012), talks about transactional partnerships that are lesser interactions, such as an executive agreeing to teach a course, which may lead to doing more and bigger projects together in the future. This brought out in Figure 4-7.

We have already dealt with Internship KPIs.

### 4.5 Classification as per Balance Score Card guidelines

The balanced score card, as mentioned earlier, in chapter 4 has four headings.

1. Financial KPIs
2. KPIs relating to customers (Students/Parents)
3. Internal business process, and,
4. Learning and growth.
The KPIs identified in this chapter is classified as per the above categories. However, financial KPIs relate more to the financial turnover, return on capital etc., This is being intentionally left out, as, we would focus more on non-financial KPIs, that are not normally tracked. The KPIs listed so far, can be classified as shown in Table 4-4.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Employability KPIs</th>
<th>KPI classification as per BSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All KPIs relating to students</td>
<td>Customers perspective / Learning and Growth</td>
</tr>
<tr>
<td>2</td>
<td>1. KPIs relating to Industrial visits</td>
<td>Learning and Growth and internal business process.</td>
</tr>
<tr>
<td></td>
<td>2. KPIs relating to job fairs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. KPIs relating to industrial interaction</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>All the three categories of KPIs mentioned in the classification of internal business process can also be grouped here. The reason is that each of these processes led to internal learning and growth of the teaching staff as well as the organization.</td>
<td>Learning and growth/ Internal business processes &amp; Stakeholder (Customer) Perspective.</td>
</tr>
</tbody>
</table>

Table 4-4 KPI Classification (Employability)

4.6 Chapter summary

Employability of students is one of the prime concerns of any professional college or university. As per the Chinese wisdom, “The goal of education is to produce men of quality who combine competence with virtue” (Chinese philosopher Confucius.).

The KPIs from the perspectives of the three main stakeholders, namely, students, staff and the Management have been developed based on the second goal of the College- Employability of the graduating students.

Based on the KPIs and the KPI links in this chapter following specific suggestions are made to the college:

1. Creation of interactive web page in college portal for students’ employment.
2. All graduating students to register in the web page seeking assistance from the college for employment. (Few students may not register –SPT/PT or students going in for higher studies.)
   This would also give clear idea for the KPI monitoring
3. Part of the interactive web page should include separate pages for:
Finishing School:
I) Finishing school – date of commencement / Duration/Syllabus
ii) Interested students should be able to register on line for the finishing school.(Facilitates monitoring of KPI)
iii) Students should be in a position to give the feedback to the college(Feedback for further improvement)

Job fair/Career fair:
i) List of companies taking part in the fair(Facilitates monitoring of KPI)
ii) Brief about the companies
iii) Students skill set required by the companies.

4) The companies should be in a position to access a web page in our college portal to indicate their requirement of students at any point in time – before /during/after the job fair.
5) Each and every student, having internship should be under the guidance of an academic advisor who should be able to guide the students about the possible expectations /and clear any misgivings of students.

6) On similar lines, it is suggested that we also make the industrial visits more effective for students by staff with pre and post assessment of the event.

In the next chapter, selection of KPIs is done based on the goal of the college that it should establish a canter of excellence.