Employers’ Feedback on Job Performance of Engineering Graduates in one Private Academic Institution in the Philippines

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Abstract – This study aimed to determine the level of job performance of engineering graduates from one private institution in the Philippines based in the assessment of their respective employers. Descriptive type of research method was utilized in the study. Results revealed that employers considered electronics and mechanical engineering with very good job performance compared to Industrial engineering in terms of competence. Engineering graduates are considered highly committed on providing necessary support, service and assistance for the welfare of the organization. They have very high level of credibility in performing their duties and responsibilities. They have strong sense of dependability when job requires being responsible and reliable in fulfilling certain duty and obligations. Critical thinking skill is necessary for engineering graduates to possess in order to analyze and solve problems based on scientific approaches to arrive in the right and sound decision. Practical applications of their knowledge in testing hypothesis through conducting experimental researches should also be given importance.

Keywords: job performance, competence, commitment, collaboration, credibility, engineering graduates, employer

INTRODUCTION

Employers are considered one of the important stakeholders of higher education institutions who give more meaning and value to the knowledge, skills and attitude of the graduates [1]. They hire people who they think will serve as contributory to the achievement of the organization’s mission and vision. They have the capability to sharpen the potential of the graduates to become holisitic and integral part of the community and the society. Engineering as a profession requires various characteristics for graduates who could be involved in the company’s growth and development. Having a suitable employer and a work environment is considered a great opportunity to build a strong relationship and rapport among the co-workers.

The feedback of the employers to the performance of the graduates in general is considered an important input to the academic institutions. It is a good measure of determining the responsiveness and relevance of any program curriculum [2]. It provides information on how the graduates fulfill their functions and satisfy the needs of the organization. Omar, Kofli, Mat, Darus, Osman, Rahman and Abdullah [3] noted that the evaluation can be used as a tool to measure the competency of the trainees with respect to the attributes, from the employers’ perspective.

Yen et al., [4] found out that there are few areas where the graduates are not able to perform to the employers’ expectations. Skills like critical skills, problem-solving skills, and ability to apply discipline knowledge and concepts in the workplace are seen as the critical area that needs attention. Meanwhile, Holtzman et al. [5] emphasized that managing time, speaking/oral communications skills, and having strong interpersonal skills were in the top five skills identified by both employers and alumni as important or very important.

Whatever character or work attitude they portray in accomplishing their tasks would always reflect on the institution where they obtained the college degree. Graduates are considered significant part on building the image and reputation of the university or college. Therefore, the evaluation of the graduates from the employers serves as feedback mechanism where the institution can develop new strategies on how to improve the attributes of its graduates.

This study explores on the performance of engineering graduates of one private HEI in the...
Philippines where leadership skill is very essential for successful management and also beneficial for a person’s career in any field of endeavor [6]. This gives emphasis on the leadership brand of the University on how the graduates can portray the 4Cs: competence, commitment, credibility and collaboration in different aspects of their work life. This is also part of the assessment of the learning outcomes of the graduates based on the principle of outcomes-based education [7]-[15].

The leadership brand serves as the guiding principle where the students can use as baseline information and foundation of all their school activities gearing towards the achievement of the school’s mission and vision that will also beneficial for future employment. Developing certain level of maturity of the graduates and sense of responsibility is being held and practiced through the assistance of the Office of Student Affairs where meaningful activities are conducted to help them experience the quality of student life. Employer responses can indicate how well students are prepared for the workforce, and they can help a program faculty to assess how well parts of their curriculum relate to industry needs and requirements [16]-[19].

Engineers can be considered competent, if they can technically perform the requirements of their duties specifically assigned to them such as designing, developing, testing and evaluating integrated systems for managing the operations and processes of the certain department or the organization. They will be assigned to accomplish responsibilities which will require technical skills such as in mechanical, industrial or electronics engineering disciplines where this investigation would like to explore as offered degree programs of the HEI under study.

Job proficiency will not be acquired without applying the principles into practice. Bailly [20] noted that employers regard the qualities required at work as either learnable or innate. The work environment is significant factor in order to achieve certain level of competence with respect to the length of time spent on specific task or job assignment. Non-technical skills or the soft skills are important ingredient on how to become successful part of the organization on which the employers can easily recognize. This is where the communication, creativity, adaptability and emotional intelligence come in to maintain the culture of excellence and quality in all aspects of business operation. Employer’s organizational demands can vary greatly in, for example, size and type of business, market orientation, geographical location, and the professional orientation of the employee [21].

Engineers are always being encouraged to work on a multidisciplinary team to gain more involvement and participation of people in the accomplishment of certain project. This is one of the characteristics being looked into by the employers if one employee is a good team player who could be able to socialize and interact in different types of people within the group.

The feedback of the employers regarding the performance of engineering graduates are considered important inputs to the Engineering department to address some gaps on their job performance which are not yet fully evident to the graduates as members of the organization. The employers as significant partners of the academic institution really provide substantial information to generate the student development program.

**OBJECTIVES OF THE STUDY**

This study aims to determine the employer’s feedback on the job performance of the graduates anchored in the University’s Leadership Brans in terms of competence, commitment, credibility and collaboration.

**METHOD**

This study on employers’ feedback used the descriptive research design wherein according to Shuttleworth [22], it is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way. The subject is being observed in a completely natural and unchanged natural environment.

Employers of the engineering graduates from 2013 to 2015 were only considered in the study. The participants of this study are the seven (7) employers of Electronics Engineering graduates, 31 for Industrial Engineering and 10 for Mechanical Engineering with the total population of 48 employers but only 35 of them returned the survey questionnaire with 73 percent retrieval rating.

The questionnaire for the employers’ feedback on the job performance of the Engineering graduates is based on the leadership brand of LPU-Batangas wherein graduates should possess the 4Cs to exemplify the good image and uniqueness of being a Lycean. This was content-validated by the Department Chair of Computer Engineering, Dean of the College of Engineering and one Language teacher. The instrument was pilot-tested to ten (10) employers of engineering-related profession and obtained a value of
0.84 Cronbach’s Alpha which is within the range of acceptable level of internal consistency.

The respondents were informed on the purpose of the study and invited to participate in the survey with the assurance that the data provided in the survey will be treated with utmost confidentiality and will solely be used for the purpose of this research. The researchers administered the questionnaires through online survey.

Weighted Mean and rank are the only statistical tools used to analyze the result of the data gathered. The given scale was used to interpret the employers’ feedback: 3.5 – 4.00: Very Good (VG); 2.5 – 3.49: Good (G); 1.5 – 2.49: Fair (F); 1.0 – 1.49: Poor (P).

RESULT AND DISCUSSION

Table 1 presents the employer’s feedback on the job performance of the graduates in terms of Competence. Engineering students are considered very good in adapting easily to the new technology and engineering as denoted by the total weighted mean score of 3.52. Berry, DiPiazza and Sauer [23] noted that the greatest advantages of a generalized undergraduate curriculum are aimed at providing entry-level graduates with a profound understanding of broad and universally important principles, as well as abilities to learn and adapt to technological advances.

Meanwhile, applying appropriate engineering skills in performing required duty or functions is considered good by the employers as indicated by the total weighted mean score of 3.49 followed by demonstrating assertive communication skills in dealing with colleagues, customers and other stakeholders (3.47) and working professionally with the team in applying suitable task (3.44). However, providing sound decision making in responding to the needs of the organization obtained the least total weighted mean score of 3.40. Saad and Majid [24] noted that having the ability to think, reason and make sound decisions is crucial for all employees especially when they are professionals who are supposed to act as the trouble shooters and solution providers for their organizations.

Engineering students are exposed to various kinds of technology in manufacturing industry. They have certain level of adaptability which demonstrates their interest towards engineering [25]. They would be able to apply what they have learned from theories and practice through internship and laboratory activities. However, the level of providing sound decision making would not be as high compared to the employees with longer experience and length of service in the organization to share what they believe as better process for improvement. The subjects under study are only employed in their respective companies for at least one to four years utmost. Therefore, there is a certain level of adjustment in learning the culture and processes of the organization. Male et al. [26] emphasized that it can be difficult for engineering academics to give communication and teamwork the necessary status to be taught and learnt seriously within traditional engineering faculties, without cultural change.

Engineering graduates let themselves open to know more about the technical aspects of the job and they continuously communicate with people in the department to understand better the company operations. Getting a closer look in the details of their job enables them to appreciate more and recognize the elements of their projects that they still need to learn. The quest for continuous improvement is always part of the goals of every organization where engineers are also responsible in quantifying and measuring the extent on the needs for development.

<table>
<thead>
<tr>
<th>Competence</th>
<th>IE</th>
<th>EcE</th>
<th>ME</th>
<th>Total</th>
<th>WM</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Applying appropriate engineering skills in performing required duty/functions</td>
<td>3.45</td>
<td>3.52</td>
<td>3.57</td>
<td>3.49</td>
<td>G</td>
<td>2</td>
</tr>
<tr>
<td>2. Providing sound decision making in responding to the needs of the organization</td>
<td>3.38</td>
<td>3.41</td>
<td>3.46</td>
<td>3.40</td>
<td>G</td>
<td>5</td>
</tr>
<tr>
<td>3. Adapting easily to the new technology and engineering equipment</td>
<td>3.48</td>
<td>3.67</td>
<td>3.57</td>
<td>3.52</td>
<td>VG</td>
<td>1</td>
</tr>
<tr>
<td>4. Demonstrating assertive communication skills in dealing with colleagues, customers and other stakeholders</td>
<td>3.46</td>
<td>3.61</td>
<td>3.42</td>
<td>3.47</td>
<td>G</td>
<td>3</td>
</tr>
<tr>
<td>5. Working professionally with the team in applying suitable technology to accomplish certain task</td>
<td>3.41</td>
<td>3.54</td>
<td>3.49</td>
<td>3.44</td>
<td>G</td>
<td>4</td>
</tr>
<tr>
<td>Composite Mean</td>
<td>3.44</td>
<td>3.55</td>
<td>3.50</td>
<td>3.46</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>
Nilsson [21] noted that in a diverse and ever-changing working world, where work tasks and the nature of the work constantly change due to external structural factors and individual employees constructing and reshaping their job requirements, it is increasingly difficult to assess graduates’ employability objectively in relation to requirements of a specific job. Therefore, employers may find difficult in identifying potential graduates, who have specialized competence for an advertised position.

Table 2 presents the employer’s feedback on the job performance of the graduates in terms of commitment. The employers assessed the commitment of the engineering graduates as very good in providing necessary support, service and assistance for the welfare of the organization as denoted by the computed total weighted mean score of 3.61. Engineering students are considered good in terms of demonstrating passion for execution and sense of urgency in all tasks (3.44) and transcending personal needs when organizational concerns need to be attended to (3.38). They could also participate in making decisions and implementing the activities of the organization (3.37) and accepting willingly and performing leadership roles in various activities with an exceptional sense of duty and dependability (3.25) with the least total weighted mean score.

The computed composite mean score of 3.41 implies that the engineering students have high job performance in terms of commitment as one of the leadership brands of the University. They could be able to provide necessary support as response to the needs of the organization. They are committed to bring quality service through demonstrating their dedication towards work. They acknowledge the duties and responsibilities of their profession and they recognize the value of the company’s mission to accomplish certain roles and achieve specific goals.

Going beyond of what is expected of them to perform is also being given importance by the graduates to really express their sincerity and commitment towards work and the organization where they belong [27].

Nilsson [21] noted that a common understanding among the graduates is that the employers expect commitment to the organization and loyalty from employees. Important employability aspects include one’s involvement in the organization, generosity, earnestness and honesty, sharing information with colleagues, ability to satisfy the job requirements, conscientiousness, trustworthiness, and reliability in the professional role. It can be noted that the engineering employees are committed and at the same time satisfied on how the organization encourages motivation [28], [29].

Table 3 presents the employer’s feedback on the job performance of the graduates in terms of caring. The employers assessed the caring character of the engineering graduates of LPU-Batangas as very good in terms of maintaining harmonious and friendly relations with superior, peers and subordinates through respecting their individual differences (3.53) and demonstrating the significant values of the organization in achieving its vision and mission (3.52). The obligation to provide better service for their clients and colleagues within their circle is being demonstrated through participating in various activities that also help them in shaping their character to fit the culture and significant values of the work place.

Engineering students are considered good in promoting positive image of the department through serving customers effectively (3.39) and fostering the sense of family in the workplace by helping co-employees with difficulty in completing some tasks (3.37).
Table 3. Employer’s Feedback on the Job Performance of the Graduates in terms of Caring

<table>
<thead>
<tr>
<th>Caring/Collaboration</th>
<th>IE</th>
<th>EcE</th>
<th>ME</th>
<th>Total</th>
<th>WM</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fostering the sense of family in the workplace by helping co-</td>
<td>3.39</td>
<td>3.45</td>
<td>3.27</td>
<td>3.37</td>
<td>G</td>
<td>4</td>
</tr>
<tr>
<td>employees with difficulty in completing some tasks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Maintaining harmonious and friendly relations with superior, peers and</td>
<td>3.56</td>
<td>3.42</td>
<td>3.48</td>
<td>3.53</td>
<td>VG</td>
<td>1</td>
</tr>
<tr>
<td>subordinates through respecting their individual differences</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Showing marked interest and pride in the present job by completing tasks on</td>
<td>3.31</td>
<td>3.36</td>
<td>3.42</td>
<td>3.34</td>
<td>G</td>
<td>5</td>
</tr>
<tr>
<td>time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Promoting positive image of the department through serving customers effectively</td>
<td>3.45</td>
<td>3.33</td>
<td>3.24</td>
<td>3.39</td>
<td>G</td>
<td>3</td>
</tr>
<tr>
<td>5. Demonstrating the significant values of the organization in achieving its vision</td>
<td>3.52</td>
<td>3.46</td>
<td>3.57</td>
<td>3.52</td>
<td>VG</td>
<td>2</td>
</tr>
<tr>
<td>and mission</td>
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</tbody>
</table>

Composite Mean: 3.45 

However, the employers also considered the engineering graduates under study as good in showing marked interest and pride in the present job by completing tasks on time with the least computed total weighted mean score of 3.34. The total composite mean score of 3.43 implies that the engineering graduates of LPU-Batangas have high level of compassion towards people and work.

From the study of De Castro et al. [27] for Computer Engineering graduates from the same institution, emphasized that the employers have seen these graduates as employees with utmost concern to the welfare of the clients as part of building the image of the department as well as the entire organization. The character of showing genuine interest to any work assignment given to them is a sign of their appreciation to the people around them and respect to the precious schedule of other work units who will possibly need their outputs in any given time.

Table 4 presents the employer’s feedback on the job performance of the graduates in terms of credibility. The employers assessed the credibility of the engineering graduates of LPU-Batangas as very good in terms of protecting and preserving company’s property through careful and wise use of the resources (3.66) and practicing honesty, fairness and transparency in all business transactions with the stakeholders (3.53). They are considered good in setting oneself as an example of moral and ethical behavior to all stakeholders (3.47) and demonstrating professionalism in dealing with colleagues (3.46).

However, the employers also considered the engineering graduates under study as good in becoming a model of leadership who adheres to the policies, rules and regulations of the organization with the least computed total weighted mean score of 3.40. The total composite mean score of 3.50 implies that the engineering graduates of LPU-Batangas have very high level of credibility in performing their duties and responsibilities.

The character of engineers is honed using exact science in making decision that follows ethical standards and procedures on how to utilize properly the resources of the organization [27].

Table 4. Employer’s Feedback on the Job Performance of the Graduates in terms of Credibility

<table>
<thead>
<tr>
<th>Credibility</th>
<th>IE</th>
<th>EcE</th>
<th>ME</th>
<th>Total</th>
<th>WM</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. becoming a model of leadership who adheres to the policies, rules and</td>
<td>3.32</td>
<td>3.46</td>
<td>3.59</td>
<td>3.40</td>
<td>G</td>
<td>5</td>
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<tr>
<td>regulations of the organization</td>
<td></td>
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<tr>
<td>2. practicing honesty, fairness and transparency in all business transactions</td>
<td>3.54</td>
<td>3.43</td>
<td>3.55</td>
<td>3.53</td>
<td>VG</td>
<td>2</td>
</tr>
<tr>
<td>with the stakeholders</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>3. protecting and preserving company’s property through careful and wise</td>
<td>3.67</td>
<td>3.54</td>
<td>3.68</td>
<td>3.66</td>
<td>VG</td>
<td>1</td>
</tr>
<tr>
<td>use of the resources</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. demonstrating professionalism in dealing with colleagues</td>
<td>3.32</td>
<td>3.46</td>
<td>3.49</td>
<td>3.46</td>
<td>G</td>
<td>4</td>
</tr>
<tr>
<td>5. setting oneself as an example of moral and ethical behavior to all</td>
<td>3.44</td>
<td>3.58</td>
<td>3.52</td>
<td>3.47</td>
<td>G</td>
<td>3</td>
</tr>
<tr>
<td>stakeholders</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Composite Mean: 3.48
CONCLUSION AND RECOMMENDATION

The employers considered electronics and mechanical engineering with very good job performance compared to Industrial engineering in terms of competence. Engineering graduates know where and when to apply necessary engineering skills on specific task and condition. They are well-rounded individuals and they keep on learning and see every aspect of the work environment as an opportunity to get more useful information. They have technical skills that demonstrate their ability to identify and solve methodical problems.

Engineering graduates are considered highly committed on providing necessary support, service and assistance for the welfare of the organization. They are also highly collaborative in maintaining harmonious and friendly relations with superior, peers and subordinates through respecting their individual differences. They are also service oriented where they actively seeking for ways to assist people in the team with proper coordination and cooperation.

They have very high level of credibility in performing their duties and responsibilities. They have strong sense of dependability when job requires being responsible and reliable in fulfilling certain duty and obligations.

They have the desire for the organization to move up and achieve whatever its goals based on targets. Being resourceful is one of the characteristics of these graduates that give them more ideas on how to be creative and innovative on their respective work places. They could be able to address and manage concerns of the department efficiently. They can manage resources through appropriate use of equipment, company facilities and materials needed to accomplish certain task.

Critical thinking skill is necessary for engineering graduates to possess in order to analyze and solve problems based on scientific approaches to arrive in the right and sound decision. Engineering students may be provided research activities that would develop their analytical and critical thinking skills. Practical applications of their knowledge in testing hypothesis through conducting experimental researches should also be given importance. This must be given emphasis in the assessment of student outcomes as significant part of their competence. This would somehow provide them proper channel to gain certain level of maturity through practice.

The level of commitment of the engineering graduates in the context of leadership can still be enhanced. But performing certain leadership roles in the company may take longer period for some graduates to adjust with the environment. What the school can teach to future engineers is on how to take responsibility and accountability towards a certain project or activity where they can also serve as important part of the team. Allow the engineering students to take the lead in planning, organizing, directing, controlling and implementing any school program as part of their co-curricular or extra-curricular activities so that they can assume leadership roles and enhance their sense of duty and interest towards work.

REFERENCES


