

Students' Perception on the Effectiveness of Industrial Internship Programme

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Abstract

Educationalists and policy makers in the higher educational institutes have recently paid a closer attention to the concept of holistic education systems that focus at making a competent and versatile graduate. Incorporating an industrial internship programme in the degree curricular has been a vital requirement towards ensuring a holistic education system. Most of the educational scientists have emphasized the importance of letting the undergraduates to gain industrial exposure as a strategy to securing employability soon after their graduation. The objective of this paper is to explore the effectiveness of the industrial internship programme offered by Department of Textile of the University of Moratuwa (UoM) in collaboration with one of the leading apparel manufacturer in Sri Lanka. This paper also aims to identify existing weaknesses in the industrial training programme offered by the Department of Textile and to provide suggestions for improving the effectiveness of internship programme. This study adopts the case study approach and as such study covers the students of the Department of Textiles who are undergoing training at the selected industrial training provider. Sample size used for the study represents 24 respondents out of the 67 undergraduates who completed industrial internship programme during the last three years and it represents approximately 35% of the population. Data were gathered by way of distributing a structured questionnaire followed by a semi structured interview for the selected sample. As per the findings of the study the students' positive learning experiences are the chance to build up a relationship with the industry, acquire industry work culture, develop self-confidence, execute problem solving activities, develop social interaction skill, and aspire future education and career. However the students negatively ranked the internship programme in providing opportunities for creativity build up activities, working in teams, develop managerial skills, enhance research and project skills and desire to go on learning. Students' feedback was positive for providing a real job experience, transport, meal and good allowance. However they have shown negative feedback on the overall structure of the internship programme since it fails to provide them an overall training covering the whole departments of the organization. Students suggest that the duration of the internship programme should be twelve months instead of six month. Study further suggests that there should be a closure dialogue between the university and the host company.

Key words: *internship, skills, employability, industry*

1. Introduction

The proposition whether the academic degree programmes should incorporate in its degree curricular a room for industrial internship programme has been widely debated by the academics in the national university system of Sri Lanka. While it has been a customary feature for certain degree curricular such as medical science for the vast majority of the degree programmes, industrial internship element has been an alien feature. However owing to the industrial pressure and the growing demand for competent graduates with right knowledge, skills and attitudes, universities and other higher learning institutes have been compelled to incorporate an industrial internship programme to their curricular. Further, owing to educational policy makers have given a due recognition to the industrial training, it has now been a vital requirement for certain degree programmes in getting their degree programmes an accreditation. Most of the educational scientists have emphasized the importance of letting the undergraduates to gain industrial exposure as a strategy to securing employability soon after their graduation.

The objective of this paper is to explore the effectiveness of the industrial internship programme offered by Department of Textile of the University of Moratuwa (UoM) in collaboration with one of the leading apparel manufacturer in Sri Lanka. This paper also aims to identify existing weaknesses in the industrial training programme offered by the Department of Textile and to provide suggestions for improving the effectiveness of industrial internship programme.

In order to achieve the above research objectives this study aims at exploring the followings,

- Experience gain by the students during the internship programme
- The assistance and helpfulness provided university
- The support provided by the training organization during the industrial internship
- Problems and issues encountered by the students during the internship programme

2. Importance of having an industrial internship programme for undergraduates

In the context of ever changing dynamic and highly competitive business environment the industry seeks for a competent and versatile graduate. In this context both academic and professional higher education institutes have to pay a very careful attention to the industrial internship programme. Student internship programme is widely used technique by many academics and professional bodies in order to blend students' theoretical knowledge with the real life working experiences. In the recent past many researchers have studied how internship programme affects to student career development and advancement. Literature provides very clear evidence that many of the researches have studied and explored the importance of industrial internship programmes.

Through the internship programme students are given an opportunity to experience how the theory works in the real life. Since it seems that industry prefers to absorb graduates with training experience internship programmes help the students in securing their sooner employability. Most of the academic institutions, giving a due recognition to the internship programmes, are now tends to incorporate an internship component to their academic curricular. While it has been a compulsory requirement for some degree programmes offered by some of the management universities in Sri Lanka for certain management degree programmes it has still been an alien feature.

Internship programmes provide not only significant benefits to students in terms of career preparation and income, but also to strengthen their self confidence and self satisfaction in the lifelong learning process. Many graduates of educational administration programmes have reported that internship is the most valued experience in the educational administration preparation process (Fry et al., 2005; Hess and Kelly, 2005; Milstein and Kruger, 1997). At the same time, they said that the internship experience needs to be expanded and improved (Fry et al., 2005; Morrison, 2005). Morrison even suggests that administrative programmes provide students more leadership experiences. Interns must be welcomed into the “trenches”, given problems to resolve, and allowed to truly experience what administrators do on a daily basis.

Literature shows different terms are being used to refer the term internship. Thus, terminologies used to describe this relationship between learning and work becomes important. Terms such as work-related learning, workplace learning and work-based learning (WBL) have been used to discuss and describe internship programmes. However, the similarities and differences of these terms are not entirely clear (Streumer and Kho, 2006). The internship programme described in the paper of “Students’ perception of Industrial internship programme” (Renganathan, Karim and Chong Su Li, 2012) is designed for the undergraduates to gain work experience, ie, experience gained through the workplace as opposed to the experiences the students gain in lectures and classrooms. Thus, the term WBL will be used broadly to encompass these experiences and the literature on WBL is also included to explore the importance of internship programmes for undergraduates. In general, internship programmes aims to merge students’ learning gained in a classroom-based environment with real-life working environment.

WBL involves a conscious effort to establish a mechanism where learning takes place in real-life contexts allowing the students learning by doing. WBL is based on the notion that “if you read something you will forget, if you see something you can remember and if you do something you will learn. WBL encourages a “more participative, learner-centered approach,

which places an emphasis on direct engagement, rich learning events and the construction of meaning by learners” (Lee et al., 2000, p. 225).

Giving undergraduates an opportunity to experience in a real-world working environment will offer a chance for the students to apply theoretical knowledge learned in the earlier years as undergraduates to related, authentic working sites (Hughes, 1998). Many engineering and technology courses in higher education institutions have “sandwich” industrial internship courses where undergraduates do their industrial attachment in either year three or four of their undergraduate programme (Auburn and Ley, 1993; Foster and Stephenson, 1998). This will complement their degree programme whereby the industry location will provide the added practical learning experience. Learning is therefore seen as a two-way process whereby practical experience gained during internship can complement studies undertaken earlier in the universities (Little, 2004).

Knowledge and experience obtained from classrooms differs from that gained during industrial internships. Universities provide formal structured education which is often guided by the teaching staff whereas work placement experience promotes informal or incidental learning (Brennan and Little, 1996; Hughes, 1998; Johnson, 2000). In addition, classroom inputs are usually uniform for all students whereas during internships, the learning environment differs for each student (Agarwal and Gupta, 2008). According to Trotskovy and Sabag (2010, p. 5), students also have the opportunity to identify the differences in “traditional learning process in the academic environment and real-design process in the industrial environment”. Thus, WBL can also contribute to a better academic understanding when students return to their respective universities in their final year (Jackson, 1995).

In addition to better academic understanding, participation in internships is also regarded as increasing the marketability of the students when they graduate. The employment market now does not only demand graduates who have a high level of academic knowledge, but also graduates who can demonstrate core competencies essential to succeed in the work environment (Binks, 1996; Johnson, 2000; Okay and Sahin, 2010). Some of these competencies such as working in teams, presenting orally and problem-solving skills can enhance graduate employability (Mason et al., 2006). Thus, through internship placements, students have the opportunity to develop these much needed skills while pursuing their academic qualifications in the universities (Semedo et al., 2010; Young, 1995).

While students are still at university, internships can help them develop a core of global market skills that are now considered requirements, such as communication and time management skills, better self-confidence and better self-motivation (Gill and Lashine, 2003; Dennis, 1996). Work experience through co-operative programmes provides credible means for softening the reality shock of transitioning from the world of academics to the working

world. (Garavan and Murphy, 2001; Collin and Tynjalla, 2003). In fact, internships improve job opportunities for students since it allows them to hone their job skills and work values, focus on their career choices, directly access job sources, even to impress potential employers. As a result, students who have internships tend to find jobs more quickly upon graduation than students who did not have internships (Knouse et al., 1999).

3. Significance of the Study

This study will benefit three parties. First it will directly benefit students as the improving the effectiveness of the internship programme will enable the students to gain quality training and minimize their expectations gap. Second it benefits to the industrial training provider to build up a close tie up with the university and the trainee that will avoid misunderstanding among the three parties and build up a sustainable win-win relationship. Finally it will support the university in identifying pre-placement activities and objectively administer the internship matters more effectively and thereby improve the internship programme. An effective internship programme will reduce the university administrative burden and will uplift its reputation among the students as well as in the industry and moreover they can take competitive advantages among other universities.

4. Methodology

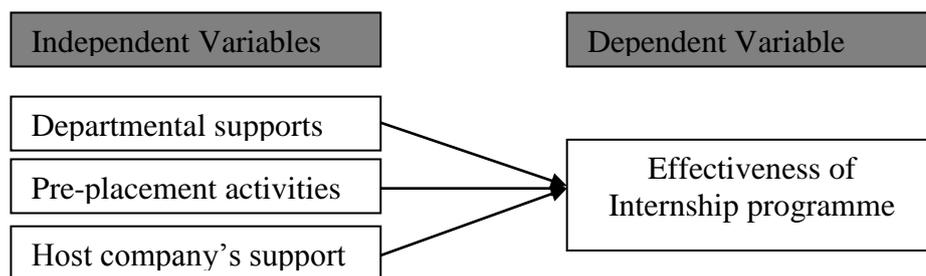
This study adopts the case study approach and as such study covers the students of the Department of Textiles who are undergoing training at the selected industrial training provider. This study recognizes effectiveness of the internship programme as the dependent variable and Organization support, efficiency of pre-placement activities by university and the assistance and support provided by university internship unit as the independent variables. Sample size used for the study represents 24 respondents out of the 67 undergraduates who completed industrial internship programme during the last three years and it represents approximately 35% of the population. Stratified random sampling technique was used to select a representative sample from each year giving relatively a high priority for the recent years.

Data were gathered by way of distributing a structured questionnaire followed by a semi structured interview for the selected sample. Student's perceptions for each variable were measured according to the students' feedback received from survey questionnaire. Questionnaire included questions to measure the students' perception on the support given by the training organization, effectiveness of the pre-placement activities, and university support for the industrial training programme. Further in order to measure the effectiveness of the internship programme, as the dependent variable, five point likert scales was used rate the student's perception on the types of the skills they managed to improve during the training

programme. In this study researchers have used both qualitative and quantitative data on which to base the study.

5. Conceptual model

By referring to the literature authors derive the following model to conceptualize the factors affecting to the effectiveness of the industrial internship programme. When developing this model authors have paid particular attention to the conceptualization model used by S.Renganathan et al in their study of the students' perception of industrial internship programme of the University Teknologi PETRONAS.



Source: Author constructed.

Above diagram illustrates that the effectiveness of the internship programme depends on the three main independent variables; host company's support, pre-placement activities and departmental support extended by the university staff for the students industrial training. The dependent variable of this study is Effectiveness of internship programme. This conceptual model can be used as a tool to achieve the research objectives in order to address the research problem.

5.1 Departmental support

Departmental support refers to the support extended by the staff of the Internship Unit (IU) of the Department of Textile in conducting the industrial training programme. In order to assess the student's perception on the support given by the IU following questions were included in a five point likert scale allowing students to rank them as 1 for strongly disagree and 5 for strongly agree.

DS1: IU maintained a good rapport with you and training provider

DS2: IU staff was always available when required

DS3: IU staff attended to arising issue promptly

DS4: IU staff was always helpful

5.2 Efficiency of the pre-placement activities

This refers to the procedures established by the university and the guidance given by the IU before finding a training placement. It is generally accepted that students should be well guided for the internship programme so that they can understand the university expectation

and the expectations of the industrial training provider as well as the trainee's expectations. Internship orientation programmes minimize the expectation gap among the above parties and strengthen the industrial relationship and students' confidence. Following questions are included in the questionnaire to assess the student's perception on the effectiveness of the pre-placement activities.

PA1: The guideline provided by the IU was comprehensive

PA2: Efficient placement procedures were carried out to select your training places

PA3: The orientation given by university IU was sufficient and informative before starting the internship

5.3 Host company's support

The host company's support is very crucial for the success of any industrial training programme. In this regard there must be a relationship between the academic institute and the host company. Establishing close relationship and understanding between the two institutes will create a flexible work schedule comfortable work environment for the trainee which will lead them to achieve a wider scope of training and experience opportunities. Following questions were included aiming to assess the students' perception on the host company's support for the training programme.

HS1: Training provided was related to course

HS2: Training programme was well-structured

HS3: Reasonable evaluation procedure was carried out

HS4: Provided a real job experience

HS5: Maintained good rapport between student and mentor

HS6: Flexibility to attend university activities

5.4 The effectiveness of the internship programme.

In the context of this study the effectiveness of the internship programme is assessed based on the degree to which the trainee is exposed to gain skills in three areas; academic skills, personal skills and enterprise skills. Academic skills cover skills such as application of theory in practice, research skills, and report writing and presentation skills. Personal skills include implicit skills of a person such as creativity, relational skills, problem solving and analytical skills, self confidence and hold independent judgment. Finally enterprise skills include teamwork, acquire industry work culture, managerial skills, social and ethical behavior. In order to assess the effectiveness of the internship programme following questions were included in the questionnaire.

5.4.1 Academic skills

AS1: You were able to apply theoretical knowledge with practices in industry?

AS2: You could enhance your Research and project skills?

AS3: You could develop oral and presentation skills?

AS4: You had a chance to aspire future education and career?

5.4.2 Personal Skills

PS1: You could enhance your creativity

PS2: You could execute problem solving activities

PS3: You developed your self confidence

PS4: You could work independently

PS5: You could develop social interaction skill

PS6: You could deal effectively with conflict

5.4.3 Enterprise Skills

ES1: You were able to develop team working skills

ES2: You acquired industry work culture

ES3: You could effectively prioritized task

ES4: You were able to develop managerial skills

ES5: You could appreciate the social and ethical responsibility

6. Data Analysis and Findings Mean score analysis

Mean scores are derived to determine whether the students have positive or negative perception regarding the internship programme. As a five –point Likert scale was used, a mean score of more than three is treated as an indicator of a favorable response from the students. Mean scores of the key variables are shown in the Table 1 below.

Table 1

Variable	Mean
Organization support	3.343
Efficiency of the pre-placement activities	3.739
The assistance and helpfulness provided by University Internship Unit	3.458
Students' learning experience	3.350
Students' learning experience-Academic skills	3.187
Students' learning experience-Personal skills	3.410
Students' learning experience-Enterprise skills	3.450

On average, the students rate their Organization support with an overall mean score of 3.343. This means that the majority of them evaluated their organization support in between Neither Agree nor Disagree and Agree. But this doesn't mean that they received satisfactory or dissatisfactory support from organization. With regard to efficiency of pre-placement activities, the assistance and helpfulness provided by university internship unit and students' learning experience, the average rating given by the students stand at 3.739, 3.458 and 3.350 respectively. These findings imply that the internship programme given by host company is indeed average from the student point of view. Students' learning experience is categorized in

to three dimensions as Academic skills, personal skills and enterprise skills. Mean scores stand at 3.187, 3.410 and 3.450 respectively. Comparing mean scores of above three dimensions, Academic skill development has low mean compared to others. That means students have low opportunity for Academic skill development compared to enterprise skill development. In the following sections, this paper examines in detail the four key variables.

6.1 Organization support

According to the above Table I, the mean score received for organization support is 3.343 and that is an average rating. By analyzing in detail of this variable, as per below Table 2, the lowest rating (17 percent) by students is for the item “Organization provided Well-structured training programme to cover all areas in the Company”. A well-structured work based learning programme will lead to graduates being employed within six months upon graduation and secure “graduate level” jobs (Mason *et al.*, 2006). Student rating is 21 percent for the item “You received maximum opportunity for training in each Department of your organization”. According to this percentage it is obvious that students have lower opportunity to get the internship covering each department of the organization. Also 42 percent rating is given for the item “Your Organization carried out an evaluation after finished internship”. Majority of students have marked that Host Company does not carry out an evaluation after the internship programme.

Table 2

Organization support	Students
Internship Training was highly related to your course or degree	58%
Organization provided real job experience	92%
Organization provided Well-structured training to cover all areas in the Company	17%
Your Organization carried out an evaluation after finishing internship	42%
Organization was supportive in providing transport/meal/allowances.	79%
You could built good rapport with your Mentor	71%
You received an opportunity to train in each Department of your organization	21%
There is a flexibility to attend university activities during your internship program	50%

6.2 Efficiency of the pre-placement activities

University holds the responsibility for all pre-placement activities to prepare students for the internship programme. According to the Ball et al. (2006) a successful, meaningful and fulfilling WBL experiences for students require the centralized work placement unit to have clear guidelines and experienced staff. Therefore it is important to examine the support provided by University for the pre-placement activities.

Table 3 below shows the students’ perception regarding the pre-placement activities provided by University of Moratuwa. Generally ratings are above 60% of the students’ perception as “agree” or “strongly agree” for three dimensions and 58% is for the item “The briefing given

by University internship Unit was sufficient and informative before starting the internship”. Therefore students’ ratings are favorable for this variable.

Table 3

Efficiency of the pre placement activities	Agree/ strongly agree
The comprehensive guideline was provided by University internship unit	67%
The efficient placement procedures was carried out to select your training places	63%
The briefing given by University internship Unit was sufficient and informative	58%

6.3 The assistance provided by University Internship Unit

Like pre-placement activities university is responsible for the variable of assistance and helpfulness provided by internship unit. Students’ perception for assistance and helpfulness for the item of “IU staffs were always available when required” is low percentage of 46 (Table 4). Others three dimensions show the more than 50 percentage as “agree” or “strongly agree”.

Table 4

Assistance provided by the University Internship Unit	Students rating
Internship Unit (IU) maintained a good rapport with You and Organization	50%
IU staff were always available when required	46%
IU staff attended to arising issue promptly	54%
IU staff were always helpful	63%

6.4 Students' Learning Experience -Academic skills

According to the following Table 5, majority of the students rated their perception on “You were able to apply theoretical knowledge with practices in industry”, “You could enhance your Research and Project skills” and “You could develop oral and presentation skills” as “disagree” or “strongly disagree”. However 54% of the students agree that they had a chance to aspire their future education and career.

Table 5

Student Learning Experience-Academic Skills	Rating
You were able to apply theoretical knowledge with practices in industry	46%
You could enhance your Research and Project skills	33%
You could develop oral and presentation skills	46%
You had chance to aspire future education and career	54%

6.5 Students’ Learning Experience-Personal skills

As per the Table 6 below majority of the students not agree on “You could enhance your creativity” and “You desired to go on learning”. As far as other aspects are concerned majority of the students rated as they agree/ strongly agree with the fact that they got an opportunity to enhance their problem solving skills, self-confidence, and work independently,

interpersonal skills and dealing effectively with conflicts. It seems that the students overall perception on personal skill development is favorable than the academic skill development.

Table 6

Student Learning Experience – Personal Skills	Agree / Strongly Agree
You could enhance your Creativity	38%
You desired to go on learning	42%
You could execute problem solving activities	63%
You developed your self confidence	63%
You could work independently	54%
You could develop social interaction skill	58%
You could deal effectively with conflict	54%

6.6 Students' learning experience-Enterprise skills

Mean score of personal skills is 3.45 (Table 1 above). According to the detail analysis of the dimension of enterprise skills as shown below Table 6, majority of the students not agree with “You were able to develop Team working skills” and “You were able to develop managerial skills”. However, majority of the students agreed that they had an opportunity to acquire industry work culture, prioritize tasks and aspiring social and corporate ethics. It seems that the students perception on enterprise skill development is favorable than the academic and personal skill development.

Table 7

Student Learning Experience-Enterprise Skills	
You were able to develop Team working skills	46%
You acquired industry work culture	58%
You could effectively prioritized task	58%
You were able to develop managerial skills	46%
You could appreciate the social and ethical responsibility	50%

6.7 Students' perception on weaknesses and suggestions

As far as the students perception on strength and weakness of the existing internship programme is concerned ten students out of twenty four mentioned that they received specialized training apart from overall training. Also nine students mentioned that they had lack of overall practical knowledge. Some of the other weaknesses that the students mentioned are lack of project and presentation skills, No proper evaluation done by HR, No creativity build up activities, No proper training schedule to cover all departments in the company and work overload and more responsibility for interns. Qualitative part of the questionnaire was covered students suggestions for above weaknesses as well. Most of them suggested that they need proper training schedule to cover all the department of the company. They preferred overall training rather than a specialized training. Also suggested that they

required project allocations, need more chances to apply theoretical learning in to industrial activities, factory visits, freedom to work independently, proper evaluation and feedback by the host company.

7. Discussion of findings

As per the students' perceptions the positive learning experiences are the chance to aspire future education and career, execute problem solving activities, develop self-confidence, develop social interaction skill, acquire industry work culture and effectively prioritized task. Although internship presents opportunities for students to apply theoretical learning in to practice both studies' findings illustrates that students have negative perception for the item "theoretical learning in to practice" during their internship programme. Further the internship programme of the Department of Textile shows that negative feedback for creativity build up activities, working in teams, develop managerial skills, and enhance research and project skills and desire to go on learning. The exploratory research done in internship at Greek universities by Mihail, D.M. (2006), has shown that internships had the greatest impact on academic and enterprise skills. According to the ratings given by the students, the most important benefits were accrued in the areas of skills such as Specialist knowledge, Information technology, Time management, Communication skills, Ability to prioritize tasks, Team work. Thus results clearly evident that the industrial internship programme is effective in gaining skills such as personal skills and enterprise skills of the students. The finding shows that students have given average feedback for the pre-placement activities and the assistance and helpfulness provided by university internship unit during the internship programme at the host company of the . The mean score stand at 3.739 and 3.458 respectively. The literature also mentions that University administrative support and helpfulness is positive in student's point of view. Also literature suggests that a detailed investigation into the various support provided by the internship unit needs to be carried out to determine clearly its effectiveness.

This study revealed that Organization support given to students is average during the internship at Host Company. The concern regarding the Organization provided Well-structured training programme to cover all areas in the Company is raised in this study. Students have shown negative feedback for this and finding suggests that there should be a proper training schedule to cover the all departments in the organization. Also this study revealed that students have low opportunity for training in each department in the organization. Further to above positive feedback is given for real job experience providing, transport, meal and good allowance providing. Also University Teknologi PETRONAS's internship at Malaysia highlights the importance of a well-structured internship programme and therefore, a well-structured internship programme will ensure greater opportunities for

the interns to gain the much needed working experience in the limited time given to them. Also it suggests that both industry and academic work together to develop a comprehensive industrial internship programme that will provide relevant practical experience and knowledge to the students.

Findings of this study can help to design an effective internship programme which will be beneficial for students, university and organization. Also the feedback received from the qualitative part of the questionnaires for weaknesses and suggestions were analyzed. Majority of the students highlights that they received Job training or specialized training than overall training. They preferred to cover all areas in the company during the internship training period. Other than that students have lack of skill development in areas such as practical knowledge, project and presentation skills. Absence of proper training schedule to cover all departments in the organization and no proper evaluation method done by human resource department is mentioned as weak areas in the internship programme. Internship period starts from six to twelve months and students' suggestion is to have overall training period in three to six months and rest of the period for specialized training. An exploratory study of Internship at Greek universities (M.Mihali, 2006) also revealed that brief length of internship as a weakness and it suggested that internship period ranging from six to twelve month would benefit both students and employing firms. The suggestions for improvement given by students who completed internship programme at Host company are, need for proper training schedule to cover all the departments in the company, overall training than specialized training, Projects allocation, need to give more chances to apply theoretical based learning to industrial activities, Factory visits and supplier/customer visits, Freedom to work independently, Proper evaluation should be done by HR and need more participation for team work activities. However findings suggest that students' perception for internship programme of Host Company is average and need further improvement in order to get more benefits for the students, university and organization as a whole.

8. Conclusion

According to the findings of this study, the mean score of students' learning experience is 3.35. That means students didn't rate their learning experience as "good" or "excellent". Also mean scores of pre-placement activities, assistance and helpfulness by university and organization support stand at 3.739, 3.458 and 3.343 respectively. All mean values are not up to 4 or above to be the "good" or "excellent". Therefore internship programme provided by Host company is within average level and it is required further improvements to be an effective one.

As per the findings of this study both industry and university should work together to make comprehensive internship programme for students. It is required to have overall training for some period of three to six months and balance for the specialized training. Therefore suggests that internship programme period to be the twelve months' time instead of six month. To success this internship programme it is important to have well-structured training schedule to cover the whole area in the organization. Since internship provides chances to apply theory based learning in to practice, the organization should be more concerned about the students' skill development via academic, personal and enterprise. Especially creativity based learning, projects and presentation skills, team working activities and developing managerial skills are some important skills to be developed more. Also university administrative part should link with industry to build good relationship among others in order to have effective internship programme. Students should build good rapport with both industry and organization as they are the middle source of the internship programme.

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