New Trends in Modern Industry and Oral Presentation Barriers of Engineers of Pakistan

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Abstract

Professional competence of an engineer is never based on his or her technical skills in this modern age of industrialization but it is combination of both technical and non technical skills. This study aimed to investigate barriers of engineers that hindered effective oral presentation performance in engineering workplace of Pakistan. Thirty engineers from two engineering organizations participated in this study. Purposive sampling method was used to gather information from respondents regarding barriers. Data were computer analyzed using Statistical Package for Social Sciences (SPSS 15.0). Information was coded according to survey questions and frequency information was determined. The results of the study revealed that barriers for instance poor oral communication skill, low self confidence, stress and nervousness and low motivation hindered effective oral presentation performance of engineers. Thus, results indicate that engineers of Pakistan face barriers during their job performance at workplace. The results of this study are consistent with literature review findings on barriers that hinder effective oral presentation performance of engineers at workplace.

Keywords: Oral presentation barriers, oral communication, modern industry, engineers

1. Introduction

There is enough evidence that engineering graduates do not receive communication skill trainings during study time and following graduation at workplace to be successful in this competitive work environment of organizations. As a result, poor communication skills such as oral communication and oral presentation skills affect engineers’ job performance as well as workplace productivity of organizations. These concerns stem from employer surveys that clearly indicate that modern engineering graduates lack in effective oral communication and oral presentation skills. Thus, they cannot be hired for outdoor workplace jobs that employ multiple stakeholders. Communication skills such as oral presentation skills are essential skills to be required for modern engineers to perform workplace jobs effectively according to employer and customer satisfaction. On the other hand, communication challenges also surface for engineers to perform workplace jobs effectively. That is why employers demand from engineering graduates to be proficient in communication skills such as oral presentation skills in order to perform workplace jobs effectively and bring various financial benefits for organizations. This study aims to investigate barriers that hinder effective oral presentation performance of engineers in engineering workplace of Pakistan.

2. Literature Review

Globalization has brought dramatic changes in the workplace especially in engineering workplace. It is the blessing of globalization that almost all engineering organizations conduct business all over the world. In order to be fit in this competitive work environment of global organizations engineering graduates should acquire effective communication skills such as oral communication and presentation skills to perform workplace jobs effectively according to employer and customer satisfaction. The job market for engineers has become international (McGraw, 2004) due to increasing role of globalization and industrialization in the workplace and the skills that modern engineers need today are entirely different from past decade engineers (Jones, Butcher & Prey, 2005) in terms of
skills and knowledge such as oral communication and presentation skills. There is a general perception in modern industry that strong soft skills such as communication, oral communication and presentation skills are essential skills to obtain a job and thereby succeed in job career at workplace (Tuleja & Greenhalgh, 2008). It is a fact that engineers equipped with effective oral communication and presentation skills bring various financial benefits for organizations.

On the contrary, engineers equipped with poor oral communication and oral presentation skills damage interests of organizations at a large measure. Moreover, employers have established a mindset that they value communication, oral communication and presentation skills (Pittenger et al., 2004) of engineering graduates to hire them for workplace jobs.

In a recent survey of 320 employers conducted by Peter D. Hart Research Associates on behalf of The Association of American Colleges and Universities communication skills are the most important skills employers look for in new hires (How Should Colleges . . ., 2006) to be hired for workplace jobs. The Job Outlook 2008 survey of 276 employers conducted by the National Association of Colleges and Employers (NACE) found that employers named communication skills as the most sought qualities in new hires (Di Meglio, 2007). The results of the Graduate Management Admission Council’s (GMAC) Survey of Recruiters conducted since 2002 constantly indicate that soft skills such as communication, oral communication and presentation skills are highly important skills in hiring new employees. Moreover, according to a survey of 1,400 chief financial officers by Robert Half Management Resources, 53% of respondents said they would hire a candidate with less technical expertise if that person had excellent soft skills such as communication skills (Weinstein, 2008).

Despite increased demand for soft skills in the workplace, there is widespread feeling among employers that modern graduates are deficient in workplace skills particularly in communication skills such as oral communication and presentation skills (Mast, 2006). A recent employer survey (How Should Colleges . . ., 2006) found that 73% of employers opined that colleges and universities should put additional emphasis on soft skills of graduates. The survey concluded that employers are frustrated by the challenges of hunting 360 degree people who possess both technical skills and the broader skills such as communication skills.

Moreover, researchers indicate that effective communication skills such as oral presentation skills lead towards workplace productivity (Cascio, 2005 cited in Sherwani Naseem, 2010) of organizations. On the other hand, employers value effective communication such as oral communication and presentation skills of employees (McPherson, 1998). Unfortunately, modern graduates usually lack in communication skills (McDonald, 2007). Many studies show concern over graduates’ lack of communication skills such as oral presentation (Tay, 2008) skills. No doubt, effective oral presentation skills assist engineering graduates to obtain a job and thereby excel in job promotion ladder at workplace. Thus, engineers should be proficient in oral presentations (Bhattacharyya et al., 2009) to advance in their professional pursuits at workplace.

Truly speaking, research has identified that engineers face communication barriers during presentations, seminars, conferences and the workplace (Kedrowicz, 2006; Orr et.al. 2005; Freeman, 2003; King, 2002; Polack-Wahl, 2000). This is mainly due to poor oral presentation skill trainings provided to them during graduation time and following graduation at workplace. Moreover, the main focus of engineering universities of Pakistan is on technical skills of engineering students ignoring the fact that communication, oral communication and oral presentation skills play paramount role in the job career of engineer at workplace. Employers constantly demand from engineering universities to prepare better engineers in terms of technical and non technical skills such as oral communication and presentation skills. They have communicated this concern to academic institutions a number of time to prepare modern engineering graduates according to changing nature of workplace environment. Moreover, they usually communicate this concern to engineering universities that communication skills trainings cost heavy expenditures for them therefore they cannot afford heavy expenditures incurred upon communication skills trainings of engineering graduates at workplace. Thus, they provide them productive engineers equipped with technical and non technical skills.

It is an established fact that oral presentation barriers affect job performance of engineers at workplace. Resultantly, these barriers affect workplace productivity of organizations and employers never bear this skill deficiency of engineers. Employers never like engineers equipped with poor presentation skills because their main target is to earn profits from organizations. Engineers equipped with poor presentation skills harm interests of organizations and never bring any major projects in favour of organizations. Employers usually cry that they do not find engineers
equipped with effective oral communication and presentation skills that assist them to promote business of organizations at international level. It is a fact that every organization has established marketing departments to promote business of organizations. Thus, they look for hiring engineering graduates equipped with effective oral communication and presentation skills to persuade industrialists to buy their company made articles.

Katz (1993) interviewed professionals from industry. Professionals from industry indicated “their communication skills are not good; they’re less than not good, they’re really bad. This clearly indicates that employers are never satisfied with communication skills such as oral communication and presentation skills of modern engineering graduates. According to King (2002) poor presentation skills and speech anxiety are the main factors that hinder oral presentations of engineers. Thus, poor communication skills serve to undermine whole profile of an engineer (Riemer, 2002) and it bring poor productivity for organizations. Poor presentation skills of engineers affect workplace productivity of organizations and employers never promote such engineers on higher posts. In certain instances employers relieve them from jobs when they find that they are never productive for organizations. It is a time to decide that modern industry needs a different type of engineer equipped with effective oral communication and presentation skills to contribute towards workplace productivity of organizations. Due to poor communication skills such as oral communication and presentation skills graduates fail at workplace (Cangelosi et al., 1998). A recent research conducted by the Chartered Institute of Management Accountants (CIMA) (2009) surveyed almost 4,500 global statements on the future finance department. The views expressed call for finance professionals to become a, “business partner,” with other members of the organization. The findings of CIMA reveal that finance is not fulfilling its role, mainly due to the lack of communication skills.

Engineers are never comfortable with oral presentations (Clayton, 1997) due to low self confidence and organizations usually demand employees with self confidence (Dam et al., 2004) to promote business of organizations in this competitive work environment of organizations. It is not an exaggeration to add that engineers equipped with self confidence communicate with industrialists confidently and persuade them to buy their company made articles and win millions of projects in favour of organizations. Thus, engineers equipped with self confidence play significant role to generate revenue for organizations. Low self confidence and the inability to communicate can affect graduate job employment (Zeigler, 2007) of engineering graduates following graduates. This is because modern workplace environment have become very competitive and employers focus technical and non technical skills of engineering graduates during job employment interviews. Malaysian employers are never happy with the level of soft skills or communication skills possessed by graduates entering the workforce. The main reason is Malaysian graduates lack in self confidence and possesses poor communication skills (Sonia, 2008).

Many people face stress and nervousness during oral presentation (Lucas, 2001). Researchers have found that out of 20 persons 1 person face communication apprehension (Sprague et al., 2003). Thus, stress and nervousness is the most common barrier that hinders effective oral presentation performance of engineers at workplace. A motivated employee is in the favour of organizations. In other words, a motivated engineer motivates his subordinates to perform workplace jobs effectively to promote business of organizations. In this perspective, employers usually like motivated engineers who can direct organizations towards increased profitability. Motivation enables organizations to be profitable (Shahzad & Bhatti, 2008) and motivated employees generally perform better (Brenčić & Norris, 2010) compared to less motivated employees. Researchers’ link motivation to increased productivity (Grant, 2008) and employers’ can motivate employees by rewarding them for a well done job (Maccoby, 2010). Moreover, researchers on workplace motivation have found that employees are motivated by good trainings and appreciation for a well done job (Durkin, 2010). Researchers who studied government employees found that employees who were satisfied with their jobs were more motivated to perform workplace jobs effectively (Hung-Wen, 2010). An abundance of literature is available on communication barriers in literature review but is scarce and fragmented. This research mainly focuses barriers that hinder effective oral presentation performance of engineers in engineering workplace of Pakistan. The findings of this study would be useful for many stakeholders to prepare modern engineering graduates according to new skills required in modern industry. Moreover, this study would contribute to the existing body of communication on barriers that hinder job performance of engineers at workplace and workplace productivity of organizations.
3. Methodology

Methodology employed for this study was based on self administered questionnaire to engineers from two engineering organizations of Pakistan. Thirty engineers from 2 engineering organizations participated in this study. Purposive sampling method was used for data collection purpose since respondents were selected on specific criteria of engineers with minimum 5 years work experience. The rationale for selection of engineers with minimum 5 years work experience was based on the phenomenon that experienced engineers would be better capable to provide appropriate feedback relating to barriers that hinder effective oral presentation performance of engineers at workplace. Purposive sampling is a non probabilistic method that is used for specific purpose (Singleton & Straits, 2005) to gather information from selected respondents chosen for any study. The questionnaire used for this study contained two parts. First part of the questionnaire contained demographic information relating to gender, age, qualification, field of discipline, nature of job, and work experience.

Twenty eight (28) respondents (93%) were male engineers and two (7%) were female engineers. Nine engineers were between the ages of 25-30 years old, thirteen 30-35 and eight 40-45 years old respectively. Interestingly, all 30 engineers possessed the degree of bachelor of engineering in various engineering disciplines. Two engineers were from the discipline of civil engineering, 4 mechanical engineering, 21 electrical engineering, 2 electronic engineering and 1 chemical engineering. All of them were working as full time engineers in respective sections of organizations. Seventeen possessed work experience between the range of (5 -10) years, seven (10-15), one (15-20) three (20 -25) and two (25-30) years respectively.

On the other hand, second part of the questionnaire contained statements relating to barriers for instance poor oral communication skill, low self confidence, stress and nervousness and low motivation that hindered effective oral presentation performance of engineers. A 5 point likert scale ranging 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5= strongly agree were used to know the percentages for agreement and disagreement for the variables included in the questionnaire.

4. Data Analysis

Data were analysed using Statistical Package for Social Sciences (SPSS 15.0) to draw percentages for agreement and disagreement level of respondents for the items included in the questionnaire relating to barriers that hindered effective oral presentation performance of engineers at workplace.

5. Findings

Findings of this study have been categorized in four headings for instance poor oral communication skill, low self confidence, stress and nervousness and low motivation that hindered effective oral presentation performance of Engineers.

5.1 Poor Oral Communication Skill

There were five questions in this section. When asked whether poor oral communication skill hinder effective oral presentation performance of engineers 58% agreed, and 22 % strongly agreed. On the other hand, for same dimension 4 % engineers strongly disagreed, 6% disagreed, whereas 10% respondents responded neutral that poor oral communication skill hinders their effective oral presentation performance (Fig.1).

5.2 Low Self Confidence

There were five questions for low self confidence. When asked whether low self confidence hinders effective oral presentation performance of engineers 23% agreed, and 27% strongly agreed. On the other hand, for same dimension 4% engineers strongly disagreed, and 32% disagreed, whereas 14% respondents responded neutral that low self confidence hinders effective oral presentation performance of engineers (Fig. 2).

5.3 Stress and Nervousness

There were five questions for stress and nervousness. When asked whether stress and nervousness hinder effective oral presentation performance of engineers 48 respondents agreed, and 20 % strongly agreed. On the other hand, for same dimension 3% engineers strongly disagreed and 16 % disagreed, whereas, 13 % respondents’ responded
neutral that stress and nervousness hinders their effective oral presentation performance (Fig.3).

5.4 Low Motivation

There were five questions for low motivation as well. When asked whether low motivation hinder effective oral presentation performance of engineers 52% respondents agreed, and 32% strongly agreed. On the other hand, for same dimension not a single engineer strongly disagreed, but 9% engineers disagreed. Whereas, 7% engineers responded neutral that low motivation hinders effective oral presentation performance of engineers (Fig.4).

6. Discussion

The results for oral presentation barriers of engineers indicated that poor oral communication skill, low self confidence, stress and nervousness and low motivation is a barrier for engineers that hinder their effective oral presentations. While figure 5.1 presents a picture that 58% engineers agreed and 22% strongly agreed that they face poor oral communication skills to perform effective oral presentations at workplace. Engineers identified that due to poor oral communication skill oral presentation is difficult for them. Thus, poor oral presentations bring bad image for them at workplace. In addition, they acknowledged that poor oral communication skill affects their job performance at workplace. Kedrowicz (2006) illustrated that research has identified that engineers face communication barriers in giving presentations, seminars, conferences, and other workplace communication tasks.

For low self confidence 23% engineers agreed and 27% strongly agreed that low self confidence is a barrier for them that hinder their effective oral presentation performance. Engineers acknowledged that due to low self confidence they become confused during oral presentation. They further indicated that due to low self confidence they avoid answering during presentation. Research has identified that engineers face communication barriers in giving presentations (Orr et.al, 2005) at workplace.

On the other hand for stress and nervousness 48% engineers agreed and 20% strongly agreed that they face stress and nervousness is a barrier for them to perform effective oral presentations. Engineers acknowledged that due to stress and nervousness they usually forget major ideas during oral presentation. They further indicated that due to stress and nervousness they usually avoid from taking part in oral presentations at workplace. Engineers face communication barriers during oral presentations (Freeman, 2003).

Additionally, for low motivation 52% engineers agreed and 32% strongly agreed that they face low motivation at workplace to perform oral presentations. They acknowledged that organizations do not reward them if they perform better presentations in the better interest of organizations. They further indicated low motivation is a major reason that engineers switch from one organization to another. Moreover, engineers agreed with the notion that low motivation affects their job performance as a result; it affects workplace productivity of organizations.

7. Conclusion

The present study investigated oral presentation barriers of engineers that hindered their effective oral presentation performance at workplace. Oral presentation is an important aspect of modern workplace thus; engineers should be equipped with effective oral presentation skills to perform workplace jobs effectively in this competitive work environment of organizations. The results of the study indicated that poor oral communication skill, low self confidence, stress and nervousness and low motivation are potential barriers that hinder effective oral presentation performance of engineers at workplace. As a result, these barriers influence job performance of engineers as well as workplace productivity of organizations. In view of this, it can be said that oral presentation barriers are neither in the interest of engineers nor in organizations. In other words these barriers are major obstacle in the professional growth of an engineer at workplace and affect workplace productivity of organizations. Thus, there are two things to be taken for consideration to overcome oral presentation barriers of engineers to prepare them productive engineers for organizations. First, it is the responsibility of engineering universities to arrange oral presentation skill trainings for engineering students during study time to prepare them productive engineers for workplace. Second, it is the responsibility of engineering organizations to arrange oral presentation skills trainings for engineers following graduation at workplace. Thus, these engineers shall be productive for organizations and shall contribute to augment workplace productivity of organizations. Moreover, it is envisaged that there are certain flaws in engineering
curriculum taught to engineering students. In this perspective engineering universities should bring engineering curriculum taught to engineering students at par with industry needs to prepare modern engineers productive for organizations. No doubt, with new industry needs engineering universities of Pakistan should update them about the required skills in modern industry. This is because industries are the biggest employers of engineering graduates (Sorenson et al., 1993). Thus, engineering universities of Pakistan should never forget the demand of modern industry if they want to prepare industry oriented workforce equipped with technical and non technical skills such as oral presentation skills. Moreover, engineering organizations should guide and provide feedback to engineering universities regarding the skills required in modern industry. It would be more beneficial if both stakeholders establish an industrial liaison to fill workplace skills gap in modern industry that is the need of the hour.

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Biographical Notes

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Figure 1: Poor Oral Communication Skill as Barrier for Engineers
Figure 2: Low Self Confidence as Barrier for Engineers

Figure 3: Stress and Nervousness as Barrier for Engineers

Figure 4: Low Motivation as Barrier for Engineers
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