

# Impact of Work Environment Factors on Employee Performance; Empirical Evidence from Manufacturing Industry of Lahore

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## Abstract

*The purpose of this study is to examine the impact of the workplace environment Factor on the Employee performance at manufacturing industry. In this study different element of the organization environment/ work environment are discuss and check their impact on the Employee Performance. Employee Performance is dependent variable in this study and independent variables are Physical work environment, supervisor support, employee willingness and Job Aid. The population of the study is elected from the manufacturing sector of sunder industrial estate Lahore. The data collection process completed through adapted questionnaire. A quantitative analysis with a sample of 352 respondents is performed using correlation and regression analysis in order to test the research hypotheses. Hypotheses of the study test by the statistical technique correlation and regression. The results of the study show that all the variables or positively correlated with each other and all variables have the positive effect on the each other's. Results show that the physical environment can disturb the level of the performance, of the employees.*

**Keywords:** Employee Performance, Physical work environment, Supervisor support, Employee willingness and Job Aid

## Introduction

The performance of the employees is mainly depending on the quality of the workplace environment element of the employees which are the physical work environment, Job Aid and supervisor support as well as employee willingness. These four factors are determining how the workers' become tied up or devoted to the workplace of the organization. Currently, organizations or industries should be focused on their prospective workforce because the environment of the business markets goes competitive day by day. Some vital elements in the environment of the workplace could have a strong influence on the motivation and output level of the employees. The workplace environment also provide a boundless impact towards the changes of health fitness and life standard or style, and also towards the conflict with family and work-life

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balance of employees.(Chandrasekar, 2011). The physical work environment effect both job performance and job satisfaction of the employees. Because studies accumulate the evidence that the physical work environment can be leads towards the stress and tension in the mind of the employees which reduce the job satisfaction in the mind of the employee and at the end this job satisfaction leads employee towards the less performance at the workplace (Vischer, 2007). The employee have different perception regarding the work environment at different level of employment and their perception effect positively on their performance (Jones & Jamest, 1979).Work environment elements play a vital role in the employee performance. Over the last decade, the work environment elements of workplace of the employees had changed due to several elements such as the change in social environment, change in technology and the stretchy ways of organizing the processes of work (Hasun & Makhbul, 2005).If the environment of the workplace is hinder the individual to attain the creativity then it became the cause of low performance (Gilson & Blum, 2014). The employee's desire and positive emotions have the positive impact on the employee performance. They also mention that the proper workplace environment helps to cut down the number of absentees and increaser the performance (Boles et al. 2004).

The elements of the environment at workplace have a significance impact on performance of the workers whichever towards the positive outcomes or towards negative outcomes (Chandrasekar, 2011; Sami et al., 2016). Some studies had shown that there are some positive relationship between the employee performance and work environment approach such as scheme of job, environment of workplace and facilities policy, machine design and etc. (Burri & Halander, 1991).the result of the study stated that relationship or connection between the working tools, work and workplace turn into the most important feature in work itself. This study, discussed numerous factors of the environment at workplace that affects the performance of the employee will be determined and also be debated Chandrasekar (2011). The factors of work environment are related with the effects on work health of the employees Based on the results of the study done by Ettner and Grzywacs, they discussed that majority of the respondent ranked that the job performance of the employees at workplace is depend on the work environment factors (Ettner & Grzywacz, 2001). The workplace strategy might effect in physiological and psychological responses whether straight or indirectly. It can increase or decrease the performance of the employees in long period of time (Croon, Sluiter, & Kuijer, 2005). The organizations offering appropriate standard of privacy

and voice controllers at the work place environment thereby improving levels of motivation and promise in employees have an improved aptitude to satisfy and retain employees.(Meredith Wells, 2002). The most important element of any organization is positive work environment (Heneman, 2007).The work environment elements had been determine as job aid, target setting, support of supervisor, chances of promotion, feedback on performance, incentives at workplace, coaching, physical work environment and mentoring. In this research assignment work quantitative method is used for the procedure of research which contains three main elements of environment at workplace. The leading elements are the job aid, supervisor support, willingness and physical work environment.

The performance of the employees can be improve by implementing the some applications (Borman, 2004). The performance of the employees can be effect positively or negatively be the job aid, supervisor support and physical work environment. Moreover, as share of the work itself, it comprises of the association between work, tools of work and workplace. The unhealthy and unsafe environment of the organization can be a product or output of the workplace environment (Chandrasekar, 2011). Thus, based on this problem, a research study is desirable to be done to conclude whether the element of environment at workplace, i.e. job aid, supervisor support, willingness and physical work place environment, might disturb the performance of the employees. The purpose of this study, therefore, is to understand the relationship and impact of work environment factors and employee performance from different working places at Sundar Industrial Estate Lahore Pakistan.

### **Literature Review**

#### **Physical Work Environment**

A person or employee can be a fit or misfit at workplace due to the physical work environment. A physical environment of the workplace can also be acknowledged as an ergonomic workplace. For getting fit or ergonomic physical workplace environment for each employee of the organization there is need to conduct research work on this issue. The chances of nerve injury of the employees will be reduced by having this ergonomic physical work environment at their work place (Copper, Cary L, Dewe, 2004). There are some factors of physical work environment which are essential to be upgraded, the factors such as lightning, office layout, furniture and smooth floor Brill et al. (1985).According to McCoy and Evans (2005), they quantified that the factors of physical work environment should be appropriate so that the employees would not be stress while accomplishment of their job task. In their study, they also identified that the physical environment element

plays a significant role in emerging the network and relationship at workplace. The improved design of physical environment at work place can help to improve the performance of the employees from 5 to 10 percent (Brill, 1992). According to Amir (2010) there are some factors that associated to the physical work environment. Like the two leading components which are the arrangement plan of the office and also the comfort level of the office. Amir (2010) to attain the organizational goal and individual goal the physical work environment should be arrange in that way which supports to attain the desired results.

Some element of the physical work environment at work place can become the cause of disturbance in the performance of the employees. The factors are such as the design layout of the office and lightings of the workplace (Boyce et al., 2003). If the employee get stressed at the workplace then the process of doing job of the employees will be slow and becomes the disturbance factor in the employee performance McCoy and Evans (2005). The employee performance at workplace will be depend on the task of the job and also on the work environment factor. Good work environment will gives the opportunity to employee to utilize their full energy and attention to do their job (Vischer, 2007). It is the important variable of the work environment factor to transfer the training. Supervisor support play a vital role for an employee to apply his or her skills and knowledge at work place specially in case of training gained skills (Govaerts & Dochy, 2014). There are numerous factor effect the transformation of training but supervisor role play an important role in the transfer (Hawley & Barnard, 2005). Supervisory support have the powerful determinant in the transfer of training within the work environment

**Hypothesis 1:** Physical workplace environment has a positive effect on employee's performance

#### **Supervisor Support**

The purpose of having the background is to see the promise of the supervisor on the way to the employee's performance. A supervisor is a force bind relationship to the employees which they will need to be attached together (Meyer & Herscovitch, 2001). For mutual satisfaction supervisor should use a relaxed mentoring during the work or during the accomplishment of the task of the subordinate because it create a positive shared understanding and correlation in between the employees and the supervisor. (Allen et al., 2000). A supervisor play as a role model of the organizational management for the employees who solve the problem as an experience leader (Adair, 1988; Nijman, 2004). As an experience leader supervisor involved in conducting training program for establishing the goals, developing lesson plans, selecting the trainer,

prepare the material, selecting the method & techniques and also conduct TNAs (Adair, 1988; Elangovan & Karakowsky, 1999). The supervisor must be a mentor to the employees as the mentor will backing the employees in accomplishment of their work done by guiding the employees on the functioning process particularly when the use a new functioning procedure (Rabey, 2007). Employee want feedback on their performance in the shape of promotions bonuses and performance reward which leads the employee towards the job satisfaction and dissatisfaction which can affect the employee performance of the employee at workplace. The supervisor support play an important role to make the PMS system effective, because if the supervisor is not fair in implementing the PMs system then organization cannot attain the desired goals of the system and this thing can hurt the performance of the employee. So supervisor support much important for the satisfaction of employee through PMS system (S. Baloyi, 2014). The performance of the employees is mainly depend upon the supervisor support but is some of the cases supervisor failed in supporting and motivating their employees. For example, the lack of communication or miscommunication among the supervisor and the employee in term of communicating the information or procedure on the job at workplace to the employees (Harris, Simons, & Bone, 2000). As a result of this miscommunication, it will affect the job performance of the employees (Chiaburu & Tekleab, 2011). On the other hand Foxon (1993) and (Nijman, 2004) indicated that the competency and job performance of the employee will boost or increase if supervisor have the supporting attitude during the training programs at workplace..

**Hypothesis 2:** Supervisor support has a positive effect on employee's performance.

#### **Employee Willingness**

The word 'Will' is linked with intrinsic motivation to be effective or not. Smith and McLaughlin (2004) argue that if 'will' is shared with employees' proficiencies and capabilities, then individual performance will go up. Ahmad et al., (2012) argue that the one way a HR department can add worth for the association, if HR professionals be willing to enthusiastically back to HRM strategies execution. HR professionals must to be enthusiastic to energetically develop the skill set they want in order to turn into effective. People have different need and motivational driver such as physiological needs, safety requirements and self-actualization needs. These needs lead the employee towards the willingness to do something at workplace. Thus focusing on the each level of the employee of each department will give the concrete information about the need of your organization workforce. Last but not

least personal growth also play vital role in employee performance and organizational development (Dobre, 2013). The results of the study shows that the two individual factor (happy to help others and knowledge self-efficacy) and one of the organizational factor top management support influence the knowledge sharing process of the organization. Because the results shows that both the donate of knowledge and collect knowledge is highly dependent on the employee willingness (Lin, 2007). The results of the studies shows that the better result for customer oriented behavior of the employee is depend On the level of willingness of the employee to build the behavior (Kim, 2004).

**Hypothesis 3:** Employee willingness has a positive effect on employee performance.

#### **Job Aid**

A job aid means a foundation to get the information, standard process and also the view of the job. A job aid is the external utility to an individual for doing required task. The purpose of the job aid is to support the activity to done the task (Rossett & Gauier Downes, 1991). The job Aid is not the information until the employee did not get the required information from job Aid. The employee should understand the job Aid by itself means job aid should be self explainrity Wurman (1989). Those companies who provide a workplace in which employees getting or acquire knowledge related to task on their job by themselves also act as Job aid. Because in that environment no one teach employees get information from workplace regarding the job and process of the duty (Van Dam, 2005). Meanwhile, Harless (1986) which also known as the father of job aid had stated that a job aid minimize the time duration for employee learning towards the task as compare to the training program. If the training program conduct rather than the job aid it will took more than four to five time extra time. Therefore, the use of job can help the employee to not waste his time for the task. The statement was being testified by Levy (2005) which she also approved that the employees do not have considerable time to get information by attending the training courses that they needed. For employees support and direction a job aid can be used to facilitate in terms of giving them guideline or procedures. A procedure is a structure of action that shows the phases of a certain work task. A job aid that defines the procedure will include the action, order and results (Pipe, 1986).

**Hypothesis 4:** Job aid has a positive effect on employee's performance.

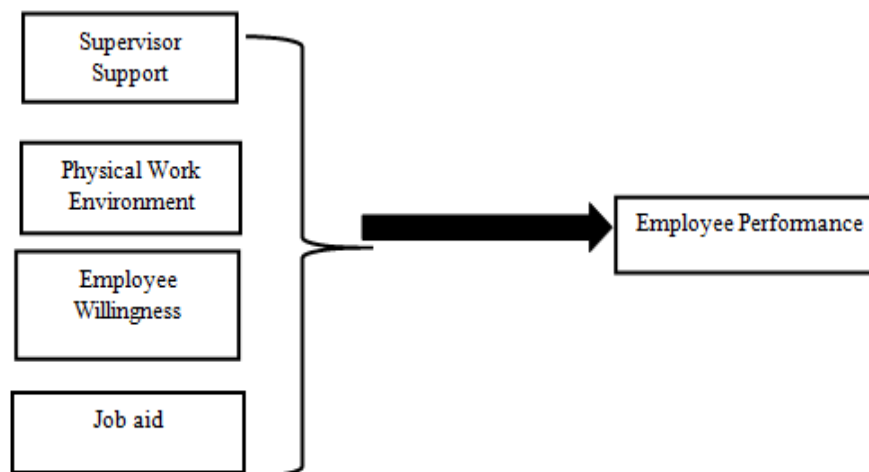
#### **Employee Performance**

A performance of the employee can be an ability of the individual to execute his or her duty at job also containing the chance and enthusiasm to accomplish as healthy. The meaning of willingness to

accomplish means that the aspiration of the employees in putting as considerable struggle towards their work (Eysenck, 1998). The employees' performance is dependent on the enthusiasm and also the sincerity of the employees itself on achievement their task. Further he mention that by having this enthusiasm and openness of the employees in doing their work, it could upturn the employees' output which also indications to the performance (Saneha, 2001). Towards the accomplishment of the employees' performance. The following factors are such as physical work environment, equipment, meaningful work, performance expectation, feedback on performance, reward for good or bad system, standard operating procedures, knowledge, skills and attitudes have the impact, Stup (2003). Also described that to gain a standard performance, people have to get the task to be completed on roadway as to attain the institute goal or target of the employee. By having the task or work done on roadway, employers could be capable to screen their employees and support them to improve their performance. Furthermore, a solid reward system should be here to motivate the employees to get their desired performance. Work environment have the positive impact on the employee performance (Khan, Parveen, Naeem, & Sohail, 2012).

**Methodology**

This research model shown in the following figure includes four following predictors to assess and their impact on employee performance in manufacturing sector of Pakistan.



Source: (Naharuddin, 2013)

**Data Collection And Analysis**

The researchers started data collection for this study by distributing questionnaires to individual manager with whom the researcher has contacts and they formed the first tier of Snowballing references. Through their references, the researcher visited many franchises and head offices of four telecom organizations. The questionnaire used draws on the previous researches (Khan et al., 2012), (Msengeti, 2015), (Karatepe & Kilic, 2007), (Gayeski, Golden, Andrade, & Mason, 2007) and is adapted through appropriate modification to align with the Pakistani context. The questionnaire is made up of two parts namely; Part I) Personal information of the respondents and background section with 4 items; Part II) physical work environment contains 7 items; supervisor support contain 7 items: employee willingness contain 5 items job aid contain 6 items and the depended variable employee performance contain 5 items, the total items comprise of 30 items. The questionnaires were distributed to among the employee of 15 different organizations of sunder industrial estate. Data from the survey questionnaire has coded, recorded and analyzed using Statistical Package for Social Science (SPSS) latest version 20.

**Findings**

To check the reliability of the data, the Cronbach Alpha test was used which was 0.746 showing satisfactory value of reliability measure. Descriptive statistics were used to capture the respondents' profile, which includes mean score and standard deviation of each item. The below Table 1 shows that the high means scores (4.30) is for employee willingness as considered by the respondents. The other variables supervisor support (3.95), and physical work environment (3.90) and job aid (3.55) are moderately present in the employees. However, this aspect is further explored through the correlation analysis, as shown in Table 1 within the independent variables highly correlated at 0.556 (p<.000) with employee performance followed by supervisor support at 0.448 (p<.000), employee willingness at 0.357 (p<.000), and physical work environment 0.274 (p<.000) respectively.

**Table 1: Descriptive and Correlation**

<b>Variables</b>	<b>N</b>	<b>Means</b>	<b>Correlation</b>
<b>Physical Work Environment</b>	352	3.89	.274**
<b>Supervisor Support</b>	352	3.95	.448**
<b>Employee Willingness</b>	352	4.30	.357**
<b>Job Aid</b>	352	3.55	.556**
<b>Employee Performance</b>	352	4.34	

The R square value of work environment is 0.51 it means that in our model work environment is explaining 51 % in employee performance. The value of F is 57.741 that is significant as confirmed from the value of P that is  $<0.05$  at 95 % confidence level. Positive beta value indicates positive relationship between work environment and employee performance shows and results are significant at .000. So model is good. Similarly, the results of regression confirm a significant impact on employee performance due to work environment. R Square value of supervisor support 0.273, which means that supervisor support has 27 % effect on employee performance. Beta is 0.302 which means that employee performance enhances by 0.302 with one unit increase in supervisor support. Positive beta value indicates positive relationship between supervisor support and employee performance shows and results are significant at 0.000. R Square value of employee willingness on employee performance is 0.309, which means that employee willingness has 31 % effect on employee performance. Beta is 0.344 which means that employee performance enhances by 0.344 with one unit increase in employee willingness. Positive beta value indicates positive relationship between employee willingness and employee performance shows and results are significant at 0.000. R Square value of job aid on employee performance is 0.200, which means that job aid has 20 % effect on employee performance. Beta is 0.221 which means that employee performance enhances by 0.221 with one unit increase in job aid. Positive beta value indicates positive relationship between job aid and employee performance shows and results are significant at 0.000.

### **Discussion**

The surveyed managers' of manufacturing organizations of Pakistan perceived that work environment, supervisor support, employee willingness, work aid have a positively correlate and positively affect with each other's. Like in the previous studies of researchers; (Chandrasekar, 2011); (Vischer, 2007); Boles et al. (2004); (Naharuddin, 2013). The result of supervisor support and employee performance indicates positive relationship between supervisor support with employee performance. These results are linked to the previously available literature as (Meyer & Herscovitch, 2001); (Allen et al., 2000); (Adair, 1988; Nijman, 2004). Work environment and employee performance shows positive relationship. These results are linked to the previously available literature as (Copper, Cary L, Dewe, 2004); McCoy and Evans (2005); (Boyce et al., 2003). Furthermore, the results of employee willingness and employee performance shows positive relationship and affect with each other like in previous studies Ahmad et al., (2012) ; (Dobre, 2013); (Lin, 2007). The effect of job aid on employee

performance positively related and affect with an another like in previous studies (Van Dam, 2005); (Rossett & GauierDownes, 1991);Wurman (1989).

### **Conclusion and Recommendations**

The employee performance is the back bone of the overall performance of the organization, because the performance of whole organization also depends on the individual performance of the employees. In this study we are focusing the environmental factor of the workplace which can affect the employee performance. Due to competitive environment of the business markets trends are changed day by day like technology revolution then development of employees as a vital source. So now organization starts to deal employees as most important assets of the organization. In Pakistan this trend also boost up now due to the multinational organization in local market as well as due to the export business. Multinational organization set a bench mark of environment for the employees at workplace that's why local organization also start to adopt the good environment practices at workplace. This change also set standards in the mind of the employees regarding the workplace environment. And employees prefer the good culture and supportive environment for the work. The framework of this study gives the idea of relationship between work environment factor and the employee performance. The previous studies of different culture and nations show the positive relationship between these variables. On the above literature and studies we conclude that the factors of physical work environment. Job aid employee willingness and supervisor support positively effect on the employee performance. And the results show that these factors can boost or decrease the performance of the employee at workplace. But our study results have minor variation in the importance of wok environment factors. But the results and respond of the respondent shows that in Pakistan employee prefers supervisor support more than the physical work environment. But we see in other studies of different region the employee give much attention to the physical work environment then the other factor of the work environment. Therefore it is much important for the Pakistani organization to more focus on the supervisor support then the other factor of the worm environment factor.

On the basis of findings and results of the study it is recommended that the manger should shift their focus on to the work environment factor within the organization. Because it will helps the manger to maintain their employee's performance level up to the standard and also helps the manager to retain the employees. During this shift in first step they should focus on the supervisor support because these study findings revel that in Pakistan culture the employees prefer

supervisor support then the others factor of the work environment. In second step they should focus on other factor of the work environment like physical work environment and job aid. Through this combination they can attain the desired goal and performance of the employees and organization goals. So higher management and line managers must know the contribution and importance of the work environment factor in employee performance and employee retention.

**Limitations and future research direction**

This study is focused on the work environment factor on employee performance. The present study only specific area of Lahore targeted with small sample size. In future study can be carried out other region and cities of the Pakistan because Pakistan is multicultural nation so values can differ and results may be varied. In this study only manufacturing sector include in future study can be test in service sector of the Pakistan.

**References**

- A.Khan, S. (2005). How to Motivate Good Performance among Government employees. *Pakistan Journal of Social Sciences*, 3(9), 1138–1143.
- Ahmad, A. Kausar, A. R. & Sharif, M.Y. (2012). Preliminary study of the moderating effect of organizational support on the relationship between HR competencies, HR willingness and HR professionals' Effectiveness Link: A study of line manager in a Pakistani banking sector. *2nd International Conference on Business Management* (pp. 1-24), Lahore, Pakistan.
- Allen, T. D. (2001). Family-Supportive Work Environments : The Role of Organizational Perceptions. *Journal of Vocational Behavior*, 435, 414–435. <http://doi.org/10.1006/jvbe.2000.1774>
- Allen, T. D., Poteet, M. L., & Russell, J. E. (2000). Protege selection by mentors : What makes the different? *Journal of Organizational Behavior*, 21, 271-282. Amir
- Amir, F. (2010). Measuring the impact of office environment on performance level of employees: A case of private sector of Pakistan. Proceedings of the 2nd International Conference of AGBA South Asia Chapter on Nurturing Innovation, Entrepreneurship, Investments and Public Private Partnership - in Global Environment. Bhurban, Pakistan
- Babin, B. J. (1996). The Effects of Perceived Co-Worker Involvement and Supervisor Support on Service Provider Role Stress , Performance and job Satisfaction. *Journal of Retailing*, 72(1), 57–75.
- Bauer, T. N., Green, S. G., Bauer, T. N., & Bauer, T. N. (1996). DEVELOPMENT OF LEADER-MEMBER EXCHANGE : A LONGITUDINAL TEST. *Academy of Management Journal*, 39(6), 1538–1567.
- Boles, M., Pelletier, B. & Lynch, W. (2004). The relationship between health risks and work productivity. *Journal of Occupational and Environment Medicine*, 46(7), 737-745.
- Borman, W. C. (2004). The concept of organizational citizenship. *Current Directions in Psychological Science*, 13(6), 238-241
- Boyce, P., Veitch, J., Newsham, G., Myer, M., & Hunter, C. (2003). Lighting quality and office work: A field simulation study. Ottawa, Canada: U.S. Dept. of Energy & National Research Council of Canada.
- Brill, M. (1992). How design affects productivity in settings where office-like work is done. *Journal of Health Care Design*, 4, 11–16.

- Brill, M., Margulis, S., & Konar, E. (1985). Using office design to increase productivity. Buffalo, NY: Westinghouse.
- Burri, G. J., & Helander, M. G. (1991). A field study of productivity improvements in the manufacturing of circuit boards. *International Journal of Industrial Ergonomic*, 7, 207-215.
- Chandrasekar, K. (2011). Workplace Environment and Its Impact on Organisational Performance in Public Sector. *International Journal of Enterprise Computing and Business Systems*, 1(1), 1–16.
- Chiaburu, D. S., & Tekleab, A. G. (2011). Individual and contextual influences on multiple dimensions of training effectiveness. *Journal of European Industrial Training*, 29(8), 604 – 626. <http://doi.org/10.1108/03090590510627085>
- Copper, Cary L, Dewe, P. (2004). *Stress: A Brief History*.
- Croon, E. De, Sluiter, J., & Kuijter, P. P. (2005). The effect of office concepts on worker health and performance : a systematic review of the literature, (November 2013), 37–41.
- Dawley, D. D., Virginia, W., Andrews, M. C., Carolina, N., Bucklew, N. S., & Virginia, W. (2007). Mentoring , supervisor support , and perceived organizational support : what matters most ? *Leadership & Organization Development Journal*, 29(3), 235–247. <http://doi.org/10.1108/01437730810861290>
- Dobre, O. (2013). Employee motivation and organizational performance. *Review of Applied Socio- Economic Research*, 5(1), 53–60.
- Dysvik, A. (2010). Exploring alternative relationships between perceived investment in employee development, perceived supervisor support and employee outcomes. *Human Resource Management Journal*, 20(2), 138–156. <http://doi.org/10.1111/j.1748-8583.2009.00120.x>
- Elangovan, A. R., & Karakowsky, L. (1999). The role of trainee and environmental factors in transfer of training: An exploratory framework. *Leadership and Organization Development Journal*, 20, 268-275.
- Ettner, S. L., & Grzywacz, J. G. (2001). Workers ' Perceptions of How Jobs Affect Health : A Social Ecological Perspective, 6(2), 101–113. <http://doi.org/10.1037//1076-8998.6.2.101>
- Eysenck, M. (1998). *Psychology : An integrated approach*. New York: Addison - Wesley Longman Ltd
- Foxon, M. (1993). A process approach to the transfer of training, Part 1: The impact of motivation and supervisor support on transfer maintenance. *Australian Journal of Educational Technology*, 9(2), 130-143
- Gayeski, D. M., Golden, T. P., Andrade, S., & Mason, H. (2007). Bringing competency analysis into the 21st century. *Performance*

- Improvement*, 46(10), 9–16. <http://doi.org/10.1002/pfi>
- Gilson, L. L., & Blum, T. C. (2014). AND THE MATCHING CREATIVITY REQUIREMENTS WORK ENVIRONMENT : EFFECTS ON SATISFACTION AND INTENTIONS TO LEAVE. *Academy of Management Journal*, 43(2), 215–223.
- Govaerts, N., & Dochy, F. (2014). Disentangling the role of the supervisor in transfer of training. *Educational Research Review*, 12, 77–93. <http://doi.org/10.1016/j.edurev.2014.05.002>
- Harless, J.H. (1986). Guiding performance with job aid. In: W. Coscarelli, G. Geis, J. H. Harless, S. Shrock, & M. E. Smith (Eds.), *Introduction to Performance Technology*, Washington, DC : National Society for Performance and Instruction, pp.106-124
- Harris, R., Simons, M., & Bone, J. (2000). *More than meets the eye?: Rethinking the role of workplace trainer*, NCVER, Adelaide.
- Hasun, F. M. & Makhbul, Z.M. (2005). An overview of workplace environment and selected demographic factors towards individual health and performance enhancement. *Synergizing OSH for Business Competitive*, 45-53.
- Hawley, J. D., & Barnard, J. K. (2005). Work Environment Characteristics and Implications for Training Transfer: A Case Study of the Nuclear Power Industry. *Human Resource Development International*, 8(1), 65–80. <http://doi.org/10.1080/1367886042000338308>
- Heneman, R. (2007). *Implementing Total Rewards Strategies*. Society for Human Resource Management Press, USA.
- Jones, A. P., & Jamest, L. R. (1979). Psychological Climate : Dimensions and Relationships of Individual and Aggregated Work Environment Perceptions. *Organizational Behavior and Human Performance*, 250, 201–250.
- Karatepe, O. M., & Kilic, H. (2007). Relationships of supervisor support and conflicts in the work-family interface with the selected job outcomes of frontline employees. *Tourism Management*, 28(1), 238–252. <http://doi.org/10.1016/j.tourman.2005.12.019>
- Khan, S. H., Parveen, S., Naeem, F., & Sohail, M. M. (2012). EXPLORING THE IMPACT OF INFRASTRUCTURE , PAY INCENTIVES AND WORKPLACE ENVIRONMENT ON EMPLOYEES ' PERFORMANCE ( A CASE STUDY OF SARGODHA UNIVERSITY ) Objectives: *Asian Journal of Empirical Research*, 2(4), 118–140.
- Kim, J. (2004). Perceptions of justice and employee willingness to engage in behavior. *Journal of Services Marketing*, 18(4), 267–275. <http://doi.org/10.1108/08876040410542263>

- Levy, J. (2005). A parallel universe. Chief Learning Officer, March, 13.
- Lin, H. (2007). Knowledge sharing and firm innovation capability: an empirical study. *International Journal of Manpower*, 28(3), 315–332. <http://doi.org/10.1108/01437720710755272>
- McCoy, J. M., & Evans, G. W. (2005). Physical work environment. In: J. Barling, E. K. Kelloway & M. R. Frone (Eds.), *Handbook of Work Stress*. Thousand Oaks, CA: Sage Publication pp. 219–245.
- Meredith Wells, L. T. (2002). SAYS ABOUT YOU WHAT DOES YOUR WORKSPACE SAY ABOUT YOU? The Influence of Personality , Status , and Workspace on Personalization. *ENVIRONMENT AND BEHAVIOR*, 34(3), 300–321.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace Toward a general model. *Human Resource Management Review*, 11(3), 299–326.
- Msengeti, D. M. (2015). Effects of Pay and Work Environment on Employee Retention: A Study of Hotel Industry in Mombasa. *International Journal of Scientific and Research Publications*, 5(4), 1–10.
- Naharuddin, N. M. (2013). Factors of Workplace Environment that Affect Employees Performance: A Case Study of Miyazu Malaysia. *International Journal of Independent Research and Studies*, 2(2), 66–78.
- Nijman, D. (2004). *Supporting transfer of training: Effects of the supervisor*. Retrieved from <http://doc.utwente.nl/76049/>
- Pipe, P. (1986). Ergonomics and performance aids. In: W. Coscarelli, G. Geis, J. H. Harless, S. Shrock, & M. E. Smith (Eds.), *Introduction to Performance Technology*, Washington, DC: National Society for Performance and Instruction, pp. 129-144
- Rabey, G. (2007). Diagnose – then act . Some thoughts on training today. *Industrial and Commercial Training*, 39(3), 164–169. <http://doi.org/10.1108/00197850710742261>
- Rossett, A., and Downes, G. (1991). What are job aids. Retrieved from <http://edweb.sdsu.edu/Courses/EDTEC540/540WWW/sect1/>
- Sami, A., Jusoh, A., Mahfar, M., Qureshi, M. I., & Khan, M. M. (2016). Role of Ethical Culture in Creating Public Value. *International Review of Management and Marketing*, 6(4S).
- Smith, P.A.,C. & McLaughlin, M. (2004). Knowledge Management: People are Important. *Journal of Knowledge Management Practice*.<http://www.tlainc.com/artic160.htm>.
- S. Baloyi, C. C. van W. & K.-Y. C. (2014). THE ROLE OF SUPERVISOR SUPPORT IN PREDICTING EMPLOYEE JOB SATISFACTION FROM THEIR PERCEPTION OF THE

- PERFORMANCE MANAGEMENT SYSTEM: A TEST OF.  
*South African Journal of Industrial Engineering*, 25(May), 85–95.
- Saneha, E. (2001). The skills and career path of an effective project manager. *International Journal of Project Management*, 19, 1–7.
- Stup, R. (2003). Control the factors that influence employee success. Managing the Hispanic Workforce Conference. Cornell University and Pennsylvania State University
- Van Dam, N. (2005). Creating value through self-service learning. Chief Learning Officer, April, 14.
- Vischer, J. C. (2007). The effects of the physical environment on job performance: towards a theoretical model of workspace stress. *Wiley InterScience*, 184(October 2006), 175–184.  
<http://doi.org/10.1002/smi.1134>
- Wurman, R. S. (1989). Information anxiety. New York: Doubleday