Paradigms

Print ISSN 1996-2800, Online ISSN 2410-0854

2019, Vol. 13, No. 1 Page 67-74 DOI: 10.24312/1800077130111

Role of Self-Efficacy in The Relationship of Training and Employee Performance

Waqas Zaki¹, Asad Ali², Abou Bakar³ Bilal Sarwar⁴

School of Accounting and Finance, University of Central Punjab, Lahore¹, Department of Management Sciences, The Islamia University of Bahawalpur, Bahawalnagar Campus, Pakistan², Department of Management Sciences, The Islamia University of Bahawalpur, Bahawalnagar Campus, Pakistan³, School of Accounting and Finance, University of Central Punjab, Lahore⁴

Corresponding Author: zaki@ucp.edu.pk

Cite this paper: Zaki, W., Ali, A., Bakar, A., & Sarwar, B. (2019). Role of self-efficacy in the relationship of training and employee performance. *Paradigms*, 13(1), 67-74.

This study highlights the significance of incorporating self-efficacy cues into training and its impact on perceived employee performance. The study examines the mediating role of self-efficacy beliefs of individuals in the relationship between training and employee performance. The population comprises of permanent employees of the banking sector of Pakistan. The sample of 384 individuals has been taken for the study. Mediation analysis is performed by using a regression analysis method. Results of the study confirmed the proposed relationship with partial mediation. The findings of this study shed light on the role of self-efficacy in the performance enhancement of employees through training and development.

Key Words: Employee Performance, Training, Self-Efficacy, Mastery Experiences, Vicarious Learning, Verbal persuasion, Psychological Arousal

INTRODUCTION

An increase in work-related issues has enhanced the importance of training in the recent past. Training is becoming the most demanding investment by the managers, to enhance the productivity of the organization. As high level of skills, abilities, aptitude, attitude, and knowledge are the demands of organizations and so managers focus to identify the talent among current human resources who can be equipped with such skills by providing training. Such skills help the employees to accomplish not only the ordinary tasks but to cater to the unique and critical kind of problems. Such skills and behaviors help organizations to create competitive advantage and for survival (Chiaburu & Lindsay, 2008). Further, the investment in training and development is considered as a central strategy to attract the competitive pool in an organization. This investment in human capital also brings satisfaction to employees and increases their capabilities (Bagès & Martinot, 2012). Employees are critical for organizations and they spend their other resources on upgrading their prime resource of human beings. Organizations increase their attraction ability by their success and repute so that they can exert a pull on the finest human resource. Not only in attracting, hiring, and compensation but, also companies nowadays are very considerate about upgrading the skills of their human capital. Through the help of training and development, the human capital is refined, polished, upgraded, and refreshed from time to time, so they can meet the necessary challenges. Ability, motivation, and situational factors are three basic cues for human performance. All of these human perspectives are included in the model of performance, which also included a new dimension of self-efficacy (Bakar, Ali & Zaki, 2016). This is because of the fact that individuals' actions are motivated by their beliefs. Previous literature on this perspective suggests that self-efficacy levels must be escalated in order to get better outcomes. Training program by the organizations serves the objective of individual and institutional learning (Usher & Pajares, 2009; Dicke, Parker, Marsh, Kunter, Schmeck & Leutner, 2014). Bakar, Ali, and Zaki (2016) suggested that if the source of self-efficacy, that is mastery experience, vicarious modeling, social persuasion, and psychological arousals are included in the training design self-efficacy of the employees will be boosted. Moreover, many researchers have found a strong relationship between self-efficacy and employee performance (Peterson & Arnn, 2005; Schwoerer, May, Hollensbe & Mencl, 2005). The use of training in escalating self-efficacy level of employees will be an effort to empirically relate these three important constructs that lead to the existence of one another. It seems that there is no study suggesting this relationship, though there are studies available, which describe relationship between self-efficacy and employee performance. Studies are also available, which describe the training impact on self-efficacy separately, a joint and cumulative work of such type is not available. The empirical work on this aspect is lacking in our examination, which will be facilitated by this study. The following are the research objectives of this study:

- To observe the role of cues of self-efficacy in the enhancement of self-efficacy if they are included in the training program.
- To view the impact and performance of employees in financial institutions if they have high self-efficacy.
- To signify the inclusion of self-efficacy sources of information in training design for performance enhancement.

And the following are the research questions:

- Do training programs affect the self-efficacy beliefs of an individual if training content is based on the sources of self-efficacy?
- Does self-efficacy belief have an impact on employee performance?
- Do training programs enhance employee performance if the content of the training is directed to improve their selfefficacy beliefs?

LITERATURE REVIEW

Self-Efficacy

Bandura (1977) defined self-efficacy as an individual's confidence in himself and his ability to execute tasks effectively. He further suggested that the employee's perceived ability affect its performance during tasks. Kanter (2006) viewed self-efficacy as self-confidence. Bandura (1977) identified four sources of self-efficacy that serve as prominent cues: mastery experiences, vicarious experiences, social persuasion, and physiological responses. According to Bandura (2001), the most prominent among them is mastery through experiences, as employees when learning through their previous performance get more confident in their efficacy beliefs. The second source vicarious experience is by observing the peers, an individual may get influenced by it. Observing a peer succeeding in career increases an individual's efficacy level. The third source of self-efficacy involves acknowledging individuals about their abilities and building confidence in their potential. Chen, Gully, and Eden (2003) suggested that employees get motivated by their leader's persuasion. Lastly, on the existence of a fourth efficacy source, Bandura (2001) argued that physiological cues depict self-efficacy. The level of self-efficacy can be observed by physiological symptoms (Jones, Paretti, Hein, and Knott, 2010).

Self-efficacy has been viewed as a strong predictor in training and development and performance under varied contexts (Kraut, Chandler & Kathlee, 2016). Bandura and Locke (2003) also validated that employee performance is significantly affected by self-efficacy beliefs. Sherer and Carol (1983) divided self-efficacy into two types; work specific and general self-efficacy. He further explained work specifically as an individual's sense of ability related to a specific task, whereas general self-efficacy is one's common confidence in capability to thrive. Bandura (1982) referred to self-efficacy as a construct of social learning theory. Naquin and Holton (2002) suggested that incorporating the issue of self-efficacy in training program leads to positive change in the trainee. Appelbaum and Hare (1996) suggested that goal-setting theory closely goes with the self-efficacy, as challenging goals motivate employees towards a high level of self-efficacy and in consequence higher performance expectancy.

Training

Sahinidis and Bouris (2008) defined training as a deliberate and planned practice of human resource management, which results in enhancing employee performance. Concept of training came from change by learning and change is necessary for human development (Katz & Stupel, 2015). Training can

help an organization to achieve competitive factors like flexibility, permanence adaptability in crux it helps an organization to cope with change (Al-Khayyat & Elgamal, 1997). Ghebregiorgis and Karsten (2007) argued that training provides a practical approach towards the development of skills attitude, which helps in gaining confidence and overcoming the mistakes. This confidence makes employees feel more equipped. This confidence in their own skills boosts the self-efficacy of employees. Their belief about their self gets stronger and their attitude becomes very positive towards the job, which enhances their performance (Gist & Mitchell, 1992).

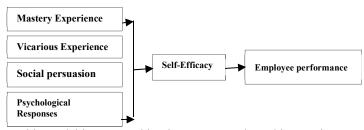
Many of the indirect effects of training identified to enhance employee performance as training enhances the confidence to perform the task and provides skill learning ability, which drives the performance (Vlachos, 2008). Training helps in the ultimate motivation to achieve the goals (Griffeth, Hom & Gaertner 2000; Joet, Usher & Bressoux, 2011). Moreover, Martocchio and Hertenstein (2003) have noted that training that results in high self-efficacy is more likely to lead to positive outcomes. Self-efficacy is the belief of an individual which is related to the training in two ways, treating it as an antecedent to training and an outcome as well (Yi & Davis, 2003). Training programs are significant and vital to boost an employee's selfefficacy, but this training must be designed in a way to deal with the mandatory competencies. Training programs can also be planned by the inclusion of Bandura's (1994) experiences in order to increase the self-efficacy and competency of a trainee.

Employee's Performance

Human resource management literature is mainly used in measuring and reporting of practices and performance of human resource (Rehman, 2009; Bhatti & Qureshi, 2007). From previous studies and available knowledge, it is quite evident that there exists a strong relationship between organizational performance and human resource practices (Paul & Anantharaman, 2003). The traditional concept of personnel psychologists about performance is that it is a part of the selection, placement, and training (Blumberg & Pringle, 1982; Louis & Mistele, 2011). Past research works have also suggested that there exists a significant relationship between beliefs of self-efficacy that in turn escalates employees' performance as Bandura and Locke (2003) also validated that employee performance is significantly affected by self-efficacy beliefs.

Theoretical Framework

Training



This model is proposed by the current study and it examines the mediating role of self-efficacy among the relationship of training and employee performance. Previously performed studies have analyzed the relationship of self-efficacy with training and training with employee performance but the current study proposes the new model, which covers both relations as a whole and testing these relations in a series: 1) mastery experiences 2) vicarious experiences 3) social persuasion and 4) Physiological responses to experiences, as prominent part of training content. According to Martocchio and Hertenstein (2003) results suggested that learning orientation and efficacy showed a strong relationship in the perspective of learning, but not with respect to performance. This gap is filled by this study, testing it in a performance context. Katz and Stupel (2015) suggested that the content of the training can affect self-efficacy level of individuals.

Brouwers and Tomic (2000) suggested that perceived selfefficacy significantly causes employee burnout and fatigue. This paper tends to minimize these outcomes by increasing selfefficacy, which leads to performance enhancement. Brouwers and Tomic (2000) also studied that decreased self-efficacy comes as an outcome of decreasing performance levels. Furthermore, Bandura (2001), explained that mastery experiences and physiological responses are prominently the two sources of self-efficacy that lead to less fatigue and better performance. Joet, Usher, and Bressoux (2011) suggested that the four cues of self-efficacy although have been authenticated by many researchers, but this research must be done in organizational work settings to validate their impact. Lunenburg (2011) suggested that when choosing employees for training and development, self-efficacy levels must also be considered. Training and development are used to improve employees' performance (Campbell & Kuncel, 2001). Sources of self-efficacy should be included in the training to improve performance (Loo1 &Choy, 2013).

Putting the consideration on all previous literature, the abovementioned model is worth testing empirically, describing the impact of training on self-efficacy levels, which leads to enhanced employee performance. On the basis of the above theoretical modeling and in-depth review of literature following hypothesis are formulated for this study:

H_{1(a)}: Training programs including 1) mastery experiences 2) vicarious experiences 3) social persuasion and 4) Physiological responses to experiences positively affect self-efficacy.

 $\mathbf{H}_{\mathbf{1(b)}}$: Self-efficacy positively affects the performance of employees.

H_{1(c)}: Self-efficacy mediates the relationship between training and performance.

RESEARCH METHODOLOGY

This research lies in the positivism paradigm as it considers the assumption of the singular nature of reality. Further, this study is congruent with a quantitative approach as statistical data and tests are used in this study to draw the conclusion. The survey method as a research strategy is used to investigate the research instrument in the present study and the nature of data is cross-section, as the time horizon is selected because primary data is gathered at one point of time by personally administered research questionnaire.

The population of this study comprises of permanent employees of the banking sector of Pakistan. The sample of 384 has been taken for the study. This industry becomes the source of attraction because competition in the financial sector of Pakistan is increasing at an exponential rate. As the growth rate of 5.98 % is recorded for the year 2017 in the service sector of Pakistan which contributed GDP by 7.61% according to the economic survey of Pakistan 2017.

Moreover, referred from State bank of Pakistan Research bulletin (2017) banking sector in Pakistan operates in competitive market structure. Growing global and the arrival of new financial instruments are making the operation of banking sector more complex day by day. So, this intense competition compels the banking sector for innovation and higher performance of employees.

The sample size is of 384 respondents who belong to financial institutions of Pakistan. Sampling is done by using purposive sampling technique. Purposive sampling was applied because the respondents in this study were not common employees or people from the street; rather they were employees posted at different supervisory positions in different departments.

Results and Analysis

Hypothesis 1(a)

H_{1(a)}: If training program includes (1) mastery experiences (2) vicarious experiences (3) social persuasion and (4) Physiological responses to experiences then training positively effects self-efficacy.

To test this hypothesis, the statistical techniques of linear regression is used. Regression analysis shows the degree to which one variable is dependent on the other, representing the impact of the independent variable on the dependent variable.

Table 2: Regression analysis (independent: training, dependent: self-efficacy)

	β	R ²	Sig
Training-SE	.537	.341	0.000

Regression analysis of training as independent variable and self-efficacy which is a main construct of the present study is checked as the dependent variable. It is found in an analysis that training contributes significantly towards self-efficacy enhancement (β =0.537, R^2 =.341 and p=0.00)

Therefore, H1(a) is accepted fully as training is found significant predictor of self-efficacy

Hypothesis 1(b)

• Self-efficacy positively affects the performance of employees.

This hypothesis deals with the impact of self-efficacy on the performance of the employees. Self-efficacy which is playing a mediating role in this study here regressed on employee performance in order to check the contribution of self-efficacy forwards the performance increase of employees. Table-2 shows the result that self-efficacy significantly predicting employee performance. (β =.495, R^2 =.355, P<0.000).

Table 3: Regression analysis (independent variable: self-efficacy, dependent variable: employee performance)

	В	R ²	Sig
Self-efficacy -Performance	.495	.355	0.000

Therefore, H1(b) hypothesis is accepted as self-efficacy has a significant impact on employee performance. The R square for some regression is lower that explains that even the relationship is significant, the noise in the system made it that way. As explained by Colton and Bower (2002) low R² values can still indicate effects that are statistically significant because there may be the presence of noise in the system.

Hypothesis 1(c)

 Self-efficacy mediates the relationship between training and performance

Hypothesis 1(c) is about the role of self-efficacy between training and employee performance. This study has used the Baron and Kenny (1986) test for mediation. Baron and Kenny (1986) prepare three conditions for running the test of mediation. These conditions are

Independent variable is significantly related to the dependent variable

Independent variable is significantly related to mediating variable

The mediating variable is significantly related to the dependent variable

Table 4: Regression analysis for mediation

	β	\mathbb{R}^2	Sig
Training- Performance	.567	.361	0.000
Training- Self efficacy	.537	.341	0.000
Self-efficacy- Performance	.495	355	0.000

Table 4 represents the regression analysis of (1) training and employee performance (2) training and self-efficacy (3) selfefficacy and employee performance. Results show that all three conditions for mediation tests are fulfilled as regression analysis of training on performance is significant (β =.567, R²=.361, P<0.000) further relationship of independent variable training with mediating variable self-efficacy is also significant $(β=.537, R^2=.341, P<0.000)$ results also prove the third condition as relationship of mediating variable self-efficacy and dependent variable employee performance is significant $(\beta=.495, R^2=.355, P<0.000)$. Finally, when the independent variable was entered in the equation while controlling the effects of the mediating variable, the effect of independent variable training on dependent variable employee performance was reduced partially. Table-4 shows that main effect size is reduced from (β =.567, P<0.000) to (β =.493, P<0.000) further the change in total explained variance is reduced from $(R^2=.361, P<0.000 \text{ to } R^2=.235, P<0.000)$. Thus these results show that after controlling the effects of mediating variable total effect is reduced. Hence it is proved that self-efficacy plays a partial mediating role between training and employee performance.

Table 5: Hierarchal Regression for Mediation

	В	\mathbb{R}^2	Sig
Training-performance	.567	.361	0.000
Training-self efficacy-performance	.493	.235	0.004

Discussions and Findings

The first hypothesis was proposed to find out whether the training program impacts the self-efficacy beliefs of the individual in financial institutes provided the training is designed incorporating the sources of self-efficacy. The relationship was positively significant expressing that training designed on cues of efficacy leads to enhanced self-efficacy beliefs in employees. Also, the correlation coefficient between training content developed through sources of self-efficacy and efficacy beliefs of the individual is positively significant.

Findings of this research confirm the think up of Baldwin and Ford (1988) and Hanover and Cellar (1998). Results further confirmed the findings of Schwoerer, May, Hollensbe, and Mencl (2005) suggesting that training context and content implies considerable impact on the self-efficacy beliefs if includes the cues of self-efficacy.

The second hypothesis was proposed to find out whether self-efficacy beliefs of an individual have an impact on his performance. This research question tends to evaluate and validate the notion of efficacy beliefs affecting their task performance which resulted in a significant relationship between the two. Results suggested that the self-efficacy beliefs positively influenced the employee performance which infers the conclusion that enhanced self-efficacy beliefs lead to better performance and reduced efficacy perceptions lead to poor employee performance.

Results of this study regarding employee performance affected by self-efficacy of individuals match the results and validation of (Meral, Colak & Zereyak, 2012; Lavasani, Mirhosseini, Hejazi, & Davoodi, 2011; Judge, Jackson, Shaw, Scott, & Rich, 2007; Pan, sun & chow, 2011).

The third research question was about the mediating role of self-efficacy of an individual between training and employee performance. The training program was developed through self-efficacy cues. Mediation regression analysis showed mediation between training and employee performance. Self-efficacy of employees, when dealt as a mediator between training and employee performance, showed partial mediation. The results of this study suggested that conducting training programs can positively enhance the performance of employees with the mediating role of the increase in their self-efficacy beliefs. The self-efficacy beliefs are escalated through training programs directed specifically towards enhancing efficacy.

Conclusion

These findings of this study are not only providing information regarding the design and content of training intervention in order to improve the personal belief about one's capabilities but also shed the light on the role of self-efficacy in performance enhancement of employees. Since the self-efficacy plays the mediating role towards performance, therefore, the inclusion of determinants of self-efficacy in the training design increases the performance.

Managerial Implications

There are several practical implications of the findings which help in enhancing the self-efficacy through training ultimately results in higher performance of employees. The study also discussed that performance-based culture should be focused on which manager must create effective training programs keeping determinants of self-efficacy in view. Also, the manager has focused on strategic organizational objectives while developing the training programs for employees and also incorporate four sources of self-efficacy which are mastery experiences, vicarious learning, social persuasion, and psychological arousal to make an effective training program for the employees.

Furthermore, the study also suggests that the aim of the training is to attempt the positive behavioral change in employees. The influence of self-efficacy while developing the training design is the one way to help bridge the gap between employee performance and expected performance from the employer. Managers must reinforce training in the context of self-efficacy because individuals who are at the highest level of self-efficacy can perform challenging and desired tasks. For the reason, they will be called the higher performance achievers in an organization.

REFERENCES

- Al-Khayyat, R. M., & Elgamal, M. A. (1997). A macro model of training and development: Validation. *Journal of European Industrial Training*, 21(3), 87-101.
- Appelbaum, S. H., & Hare, A. (1996). Self-efficacy as a mediator of goal setting and performance: Some human resource applications. *Journal of Managerial Psychology*, 11(3), 33-47.
- Bagès, C. Martinot, D. (2012). What is the best model for girls and boys faced with a standardized mathematics evaluation situation: A hardworking role model or a gifted role model? *British Journal of Social Psychology*, 50, 536-543.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, 41(1), 63-105.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of applied psychology*, 88(1), 87.
- Bandura, A., & Walters, R. H. (1963). Social learning and personality development.
- Barden, P. (1997). Training and development for library and information workers for the future: A Manifesto. *Librarian Career Development*, 5(1), 30-33.
- Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist*, 54(7), 462.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and* social psychology, 51(6), 1173.
- Bhatti, K. K., & Qureshi, T. M. (2007). Impact of employee participation on job satisfaction, employee commitment, and employee productivity. *International Review of Business Research Papers*, 3(2), 54-68.
- Blumberg, M., & Pringle, C. D. (1982). The missing opportunity in organizational research: Some implications for a theory of work performance. *Academy of Management Review*, 7(4), 560-569.

- Brown, T. (2003). The effect of verbal self-guidance training on collective efficacy and team performance. *Personnel Psychology*, 56(4), 935-964.
- Brouwers, A., & Tomic, W. (2000). Disruptive Student Behavior, Perceived Self-Efficacy, and Teacher Burnout.
- Campbell, J. P., & Kuncel, N. R. (2002). Individual and team training. Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62-83.
- Chiaburu, D. S., & Lindsay, D. R. (2008). Can do or will do? The importance of self-efficacy and instrumentality for training transfer. *Human Resource Development International*, 11(2), 199-206.
- Colton, K.M., & Bower, L. (2002). Some misconceptions about R2 International Society of Six Sigma Professionals Extra Ordinary Sense, 3(2), 20-22
- Cromwell, S. E., & Kolb, J. A. (2004). An examination of workenvironment support factors affecting the transfer of supervisory skills training to the workplace. *Human Resource Development Quarterly*, 15(4), 449-471.
- Dean, P. J., Dean, M. R., & Rebalsky, R. M. (1996). Employee perceptions of workplace factors that will most improve their performance. *Performance Improvement Quarterly*, 9, 75-89.
- Deckop, J. R., Konrad, A. M., Perlmutter, F. D., & Freely, J. L. (2006). The effect of human resource management practices on the job retention of former welfare clients. *Human Resource Management*, 45(4), 539-559.
- Dicke, D., Philip, D., Parker, H., Marsh, H., M., Kunter, M., Schmeck, A., and Leutner, D. (2014) Journal of Educational Psychology Self-Efficacy in Classroom Management, Classroom Disturbances, and Emotional Exhaustion: A Moderated Mediation Analysis of Teacher Candidates
- Dittmann-Kohli, F., Lachman, M. E., Kliegl, R., & Baltes, P. B. (1991). Effects of cognitive training and testing on intellectual efficacy beliefs in elderly adults. *Journal of Gerontology*, 46(4), P162-P164.
- Economic Survey of Pakistan (2013), Retrieved from http://finance.govt.pk
- Ghebregiorgis, F., & Karsten, L. (2007). Human resource management and performance in a developing country: The case of Eritrea. *The International Journal of Human Resource Management*, 18(2), 321-332.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. Academy of Management Review, 17(2), 183-211.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Hanover, J., & Cellar, D. F. (1998). Environmental factors and the effectiveness of workforce diversity training. *Human Resource Development Quarterly*, 9(2), 105-124.
- Harrison, A. W., Rainer Jr, R. K., Hochwarter, W. A., & Thompson, K. R. (1997). Testing the self-efficacy-performance linkage of social cognitive theory. *The Journal of Social Psychology*, 137(1), 79-87.
- Naquin, S. S., & Holton, E. F., III. (2002). The effects of personality, affectivity, and work
- commitment on motivation to improve work through learning. *Human Resource*
- Development Quarterly, 13, 357-376.
- Joet, G., Usher, E. L., & Bressoux, P. (2011). Sources of self-efficacy: An investigation of elementary school students in France. *Journal of Educational Psychology*, 103(3), 649-663.

- Jones, B. D., Paretti, M. C., Hein, S. F., & Knott, T. W. (2010). An analysis of motivation constructs with first-year engineering students: Relationships among expectancies, values, achievement and career plans. *Journal of Engineering Education*, 99(4), 319-336.
- Judge, T. A., Jackson, C. L., Shaw, J. C., Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: the integral role of individual differences. *Journal of Applied Psychology*, 92(1), 107.
- Kanter, R. M. (2006). Confidence: How winning streaks and losing streaks begin and end: Crown Business.
- Katz, S., & Stupel, M. (2015). Promoting creativity and self-efficacy of elementary students through a collaborative research task in mathematics: a case study. *Journal of Curriculum and Teaching*, 4(1), p68.
- Katz, R., & Van Maanen, J. (1977). The loci of work satisfaction: Job, interaction, and policy. *Human Relations*, 30(5), 469-486.
- Kieffer, K. M., & Henson, R. K. (2000). Development and validation of the sources of self-efficacy inventory (SOSI): Exploring a new measure of teacher efficacy: ERIC Clearinghouse.
- Kraut, R., Chandler, T., and Hertenstein, K. (2016). The Interplay of Teacher Training, Access to Resources, Years of Experience and Professional Development in Tertiary ESL Reading Teachers' Perceived Self-Efficacy. Gist Education and Learning Research Journal. 132-151.
- Labor Force Survey (2009), retrieved from http//:pbs.gov.pk
- Lavasani, M. G., Mirhosseini, F. S., Hejazi, E., & Davoodi, M. (2011).
 The Effect of Self-regulation Learning Strategies Training on Academic Motivation and Self-efficacy. *Procedia-Social and Behavioral Sciences*, 29, 627-632.
- Levine, D., & Tyson, L. A. (1990), Participation, Productivity, and the Firm Environment. *Paying for Productivity. A Look at the Evidence, Washington: Brookings Institution*, 183-243.
- Louis, R. A., & Mistele, J. M. (2012). The differences in scores and self-efficacy by student gender in mathematics and science. *International Journal of Science and Mathematics Education*, 10(5), 1163-1190.
- Loo, C., & Choy, J. (2013) Sources of self-efficacy influencing academic performance of engineering students. *American Journal of Educational Research*, 1(3), 86-92.
- Lunenburg, F. C. (2011). Self-efficacy in the workplace: Implications for motivation and performance. *International Journal of Management, Business, and Administration*, 14(1), 1-6.
- Luthans, F., & Stajkovic, A. D. (1999). Reinforce for performance: The need to go beyond pay and even rewards. Academy of Management Perspectives, 13(2), 49-57.
- Martocchio, J. J., & Hertenstein, E. J. (2003). Learning orientation and goal orientation context: Relationships with cognitive and affective learning outcomes. *Human Resource Development Quarterly*, 14(4), 413-434.
- Meral, M., Colak, E., & Zereyak, E. (2012). The relationship between self-efficacy and academic performance. *Procedia-Social and Behavioral Sciences*, 46, 1143-1146.
- Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organizational performance: analysis of a

- causal model. International Journal of Human Resource Management, 14(7), 1246-1266.
- Pan, W., Sun, L.-Y., & Chow, I. H. S. (2011). The impact of supervisory mentoring on personal learning and career outcomes: The dual moderating effect of self-efficacy. *Journal of Vocational Behavior*, 78(2), 264-273.
- Porter, L. W., & Lawler, E. E. (1968). Managerial attitudes and performance: RD Irwin Homewood, IL.
- Rehman, M. S. (2009). Impact of job analysis on job performance: A study of public sector organizations of Pakistan (Doctoral dissertation, National University of Modern Languages Islamabad).
- Ripley, D., Hudson, I., Turner, R., & Osman-Gani, A. (2006). Crossnational similarities and differences in employee perceptions of issues in the work environment. *Performance Improvement Quarterly*, 19(1), 41-66.
- Sahinidis, A. G., & Bouris, J. (2008). Employee perceived training effectiveness relationship to employee attitudes. *Journal of European Industrial Training*, 32(1), 63-76.
- Katz, S., & Stupel, M. (2015). Reflection on self-efficacy training and skill training to foster student performance in geometry: A case study. Far East Journal of Mathematical Education, 14(2), 103.
- Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research Methods For Business Students, 5/e*: Pearson Education India.
- Schunk, D. H. (1985). Self-efficacy and classroom learning. *Psychology in the Schools*, 22(2), 208-223.
- Schwoerer, C. E., May, D. R., Hollensbe, E. C., & Mencl, J. (2005). General and specific self-efficacy in the context of a training intervention to enhance performance expectancy. *Human Resource Development Quarterly*, 16(1), 111-129.
- Sherer, M., & Carol, H. A. (1983). Construct validation of the self-efficacy scale. *Psychological Reports*, 53(3), 899-902.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124(2), 240.
- Statistical Bulletin (2013 August), retrieved from http://sbp.org.pk
- Stewart, D., & Waddell, D. (2003). Future considerations for the training and development of Australian quality managers. *The TQM Magazine*, 15(1), 37-42.
- Usher, E. L., & Pajares, F. (2009). Sources of self-efficacy in mathematics: A validation study. Contemporary educational psychology, 34(1), 89-101.
- Van Buren, M. E., & Erskine, W. (2002). The 2002 ASTD state of the industry report. Alexandria, VA: American Society of Training and Development.
- Vlachos, I. (2008). The effect of human resource practices on organizational performance: Evidence from Greece. The International Journal of Human Resource Management, 19(1), 74-97.
- Yi, M. Y., & Davis, F. D. (2003). Developing and validating an observational learning model of computer software training and skill acquisition. *Information Systems Research*, 14(2), 146-169.