

Role of Self Efficacy and Intrinsic Motivation on Work Place Environment

Deepali Dabas^[1]

Dr. Neelam Pandey^[2]

Abstract: *Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks. It can be seen as the ability to persist and a person's ability to succeed with a task. Self-efficacy directly relates to how long someone will stick to a workout regimen. High and low self-efficacy determines whether or not someone will choose to take on a challenging task or write it off as impossible. Intrinsic Motivation refers to a highly desired form of incentive that stems from a person's internal desire for self-satisfaction or pleasure in performing the task itself. Self-determination theory has focused on the social-contextual conditions that facilitate versus forestall the natural processes of self-motivation and healthy psychological development. Specifically, factors have been examined that enhance versus undermine intrinsic motivation, self-regulation. The paper focuses on existing cases from the literature emphasizing the role of self-efficacy and intrinsic motivation on workplace environment. Thus, this paper gives a message to organizers to develop their organizations.*

Keywords: *self-efficacy, intrinsic motivation, and work place*

INTRODUCTION

The workplace environment plays an important role for the employees. At present employees may have a large number working options, then the environment in workplace becomes an important factor for accepting or keeping the jobs. The nature of environment in workplace may simply determine the level of employee's motivation, productivity and subsequent performance. How well employees get along with the organization impacts the employee's level of innovation, error rate and collaboration with other employees, absenteeism and ultimately time period to stay in the job. Today, employees spend an incredible amount of time at their workplace and are expected to deliver duties efficiently. Nevertheless, many employees do not believe that they can perform well. In past few years, self-efficacy has come up as a highly influential predictor of motivation and learning. As a performance based variable of capability, self-efficacy differs psychometrically and conceptually from motivational constructs such as self-concept and expectations. Self-efficacy influences the tasks employees choose for themselves and also affects the level of effort and persistence when learning tough tasks. Intrinsic motivation is one of the positive valued experience that an employee gets from the work tasks. Intrinsic motivation not only increases efforts but it also have a great influence on other aspects of human behavior. Intrinsic motivation is very important for open-ended cognitive development.

SELF EFFICACY

When people make an attempt to understand themselves, it is known as the Self- Concept. Self refers to the totality of an individual's thoughts and feelings having reference to him or herself as an object. Self-efficacy is self-evaluation of one's ability to successfully achieve plan of action necessary to achieve desired outcome Bandura (1977, 1982&1986).

Self-Efficacy is one of the essential parts of human development, one of the most key exponents of which is Albert Bandura.

“Human attainments and positive well-being require an optimistic sense of personal efficacy. ... Self-doubts can set in quickly after some failures or reverses. The important matter is not that difficulties arouse self-doubt, which is a natural immediate reaction, but the speed of recovery of perceived self-efficacy from difficulties.”

The history of self-efficacy goes back to Bandura (1977) social learning theory that was later renamed as social cognitive theory (1986). According to the theory self-efficacy makes a huge difference in how employee's at workplace think, feel, behave and motivate themselves. With regard to feeling, a low level of self-efficacy is directly related with depression, anxiety, stress and helplessness. Such employees in turn develop low level of self-esteem and become pessimistic about their personal development and accomplishments. With regard to thinking, a high level of self-efficacy facilitates performance and cognitive processes including problem solving and decision making. With regard to behaving, self-efficacy influences employee's choice of activities. High level of self-efficacy can increase motivation. Employees with a high level of self-efficacy accept challenging tasks without avoiding them. “People's self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles” (Bandura, 1989, p. 1176).

Success is closely related to self-efficacy (Bandura, 1997). High level of self-efficacy in a realm is related with outcomes ranging from performance and job satisfaction (Judge & Bono, 2001), to better mental and physical health (Bandura, 1997) and to better academic performance (Robbins et al., 2004).

^[1]School Counsellor, Our Own English High School, GEMS Education, Fujairah, U.A.E, Dabas Farm, Behind D-3, Green Avenue Lane, Vasant Kunj, New Delhi-110070, Email- deepali.dabas89@gmail.com

^[2]Assistant Professor, Amity University, Noida, A-246, Sarojini Nagar, Email- npandey1@amity.edu

In a study by Amtmann, et al., (2012) it was concluded that there is a direct relationship between self-efficacy and psychological well-being resulting to a lot of implications such as quality of life. In a similar study by (Prilleltensky and Prilleltensky, 2007) concluded that self-efficacy beliefs contribute to personal growth of an employee and quality of life in a positive ways including quality of working life.(Amtmann, et al.,2012) in his study quoted that self-efficacy beliefs influences the action an employee chooses, one's belief in one's capabilities to succeed in life influences her or his level of motivation, the quantity of effort expended, the level of stress experiences and the level to which one perseveres on the midst of uncertainties. Compared with the employees who doubt their potential, those with high level of self-efficacy work harder, readily participate in tasks and encounter challenges and achieve success (Schun, 1995). Employees at workplace tend to acquire about how well they are performing their job, which influences their self-efficacy for continued performance and learning. Luthans et al. (2006) in his study quoted that people with high level of self-efficacy are more satisfied with their jobs and are more committed to their jobs. A study carried out by (Luthans and Peterson, 2002) found that manager's self-efficacy was a mediator between employee's degree of work engagement and manager's effectiveness. Self-efficacious employees have strong beliefs in their capabilities to successfully perform tasks in difficult situations, tend to set challenging tasks for themselves and are better in dealing with failures at workplace as compared to employees with low level of self-efficacy(Heuven et al., 2006) Employees with high level of self-efficacy are expected to make use of resources available to them in a better way to deal with challenging tasks. This reduces the probability of stress at workplace and make life much better.

Bandura (2002) quoted that self-efficacy is one of the prime predictor of the acts one chooses to perform and for which a lot of hard efforts are required. In a study by Bandura (1997) it was found that self-efficacy judgments affect the goals which people normally set for themselves and their affective reactions to the level of performance achieved in different contexts. There is a strong correlation between self-efficacy and past performance(Vancouver, Thompson, & Williams, 2001). Nonetheless, there are other mechanisms also through which self-efficacy has a direct effect. Self-efficacy helps employees to focus their attention and reduces distractions (Kanfer & Ackerman, 1996), impact the level of difficulty of the goals and the level of commitment towards those goals (Locke & Latham, 2002), regularly allot resources towards the accepted goals (Vancouver et al., 2008), and encourage the search for more efficient strategies(Taberner & Wood, 1999). Self-efficacy has a direct impact on cognitive functioning through its impact on self-satisfaction with the demands of the goals and personal development. Bandura (1997) found that an individuals who doubt their abilities feel dissatisfied with their achievements and themselves, they tend to lose interest in the tasks. Similarly, they tend to avoid change and stick to goals they are certain with. The higher their approach of self-efficacy, the greater the changes in their chosen goals (Earley & Lituchy, 1991).

In a study by Al-Eisa et al., (2009) concluded that motivation to learn was found to have a direct influence on learning and mediates the relationship of self-efficacy and transfer intention. In another study by Ballout (2009) named the impact of self-efficacy on employee career commitment found that self-efficacy and career commitment were positively related and had direct impact on employee performance. In a study by Leon-Perez et al., titled 'the relationship between employee self-efficacy and ability to manage transactions and disputes found that high level of self-efficacy and motivation enabled better ability to deal and cope up with disputes and transactions. Olusola (2011) studied three factors namely self-efficacy, intrinsic motivation and job satisfaction to examine their effect on industrial workers performance in order to determine ways to increase employee's productivity in industrial settings. The study found two things, first self-efficacy, intrinsic motivation and job satisfaction predict the job performance of workers. Second, each of these variables will predict the job performance of workers at workplace.

Self-efficacy affects performance and learning in three ways (Bandura, 1982) namely:

- Self-efficacy influences the goals that employees choose for themselves, employees with low level of self-efficacy tend to set low goals as compared to employees with high level of self-efficacy.
- Self-efficacy influences learning as well as the effort that employee exert on the job, employees with high level of self-efficacy generally put in a lot of hard efforts as compared to employees with low level of self-efficacy as they are not sure of their efforts which they put in.
- Self-efficacy influences the persistence with which employees attempt new and difficult tasks, employees with high level of self-efficacy are more confident of themselves as compared to employees with low level of self-efficacy who believe that they are not capable of learning and performing difficult tasks.

In an extensive literature review on self-efficacy, Bandura and Edwin Locke (2003) found that self-efficacy is one of the most powerful determinant of job performance.

INTRINSIC MOTIVATION

Intrinsic motivation was proposed as a crucial reaction to two behavioral theories that were ruling in psychology from 1940 to 1960. To do something an individual need to be motivated. An individual who feels no impetus or inspiration to act is characterized as unmotivated, whereas an individual who is energized and active is characterized as motivated. Intrinsic motivation is defined as a positive experience that an individual gets directly from their work (Thomas and Velthouse, 1990). Ryan and Deci (2000) stated that intrinsic motivation is important for open-ended cognitive development. Therefore, Ryan and Deci (2000) defined intrinsic motivation as "the doing of an activity for its inherent satisfaction rather than for some separable consequence". Intrinsic motivation is explained as the doing of an activity for one's inherent satisfaction rather than for

distinguishable consequence. When an individual is intrinsically motivated to act for the fun of challenge rather than because of pressures or rewards (Ryan et al. 2000). Further, Ryan et. al. (2000) added that intrinsic motivation occur in the relationship between individuals and activities. Individuals are intrinsically motivated for few activities and not everyone doesn't have same level of intrinsic motivation. According to Ryan et.al (2000) the more time and efforts an individual's spend on their task, the more intrinsically motivated they are for that task. According to Antoni (2009) intrinsic motivation plays an important role in workplace environment by high participation in decisions, problem solving and personal relations. Studies have proved that performance feedback is one factor which enhance intrinsic motivation (Ryan et.al, 2000). Ryan et al. (2000) in his study pointed out that for high level of intrinsic motivation an individual must experience satisfactions for autonomy and competence. Promoting feedback, challenges, freedom from evaluations, opportunity for self- direction and choice happens to enhance intrinsic motivation (Deci, 2002)

Intrinsic motivation comes from inside of an individual rather than from any kind of external reward, such as grades or money. The motivation comes from the pleasure an individual gets from the task or from the level of satisfaction in completing a task. Warr, et al., defined intrinsic motivation as an extent to which an individual wants to work in order to gain satisfaction at workplace. In a study by Cook and Well (1980) found that a positive relationship between intrinsic motivation and interpersonal trust at workplace. In a similar study by Hackman and Oldham (1974) found a direct relationship between employee job satisfaction and intrinsic motivation. Quigley and Tymon (2006) in their study suggested that intrinsic motivation is positive experience that an individual gets directly from their work tasks further concluding that it is positive feelings and passion that an individual derives from their work, they suggested choice, meaningfulness, progress and competence as four component of intrinsic motivation. Intrinsic motivation is an extent to which an individual is excited to work on an activity and is motivated to do (Oldham and Cummings, 1996). Employees who are intrinsically motivated are more likely to explore new ways and to take great challenges (Amabile, Goldfarb & Brackfield, 1990). Therefore, employees who are intrinsically motivated are more excited about their work and their creativity skills also increases (Shalley, Zhou & Oldham, 2004). Filipe (2011) found that developing internal locus of control promotes intrinsic motivation at workplace.

Intrinsic motivation is directly associated with high level of performance as well as preference for challenge (Patall, Cooper & Robinson, 2008). Employees who have intrinsic motivation are more able to display high conceptual learning, improved memory retention and high overall achievement at workplace (Gottfried, 1990). Employees who have high level of intrinsic motivation demonstrate a peak performance which is assisted by the feeling that time is flying fast (Shernoff & Csikszentmihalyi, 2009). The advantage of intrinsic motivation to learn include positive effect while doing work at workplace (Froiland, 2011a), improved wellbeing of employees (Deci & Ryan, 2008) and less drug abuse (Battistich, Schaps, Watson, Solomon & Lewis, 2000).

Intrinsic motivation is one of the most strong factor in productivity, persistence and performance for employees at workplace (Grant, 2008) and it opens door for happiness for employees as well as children (Froiland, Smith & Peterson, 2012).

WORKPLACE ENVIRONMENT

The workplace environment plays an important role for the employees. Today, employees have a large number of alternatives, then the environment in workplace become a significant factor for accepting or keeping jobs. The quality of workplace environment determines self-efficacy, motivation, performance and productivity. The number of job opportunities available foran individual is growing worldwide. Therefore, HR need to consider new strategies for recruiting new talent for their organizations. Nevertheless, the quality of workplace environment have a strong impact on organization's ability to recruit talented individuals. Some factors in workplace environment are considered to be important affecting productivity, motivation, performance and morale. Although appropriate workplace conditions are essential for improving the quality of outcomes, productivity and working in many organizations. Individuals working under inappropriate conditions may develop low self-efficacy and many health diseases causing turnover and absenteeism. Employees in many organizations encounter problems related to physical and environment factors. Pech and Slade (2006) concluded that employee disengagement is increasing and it is important to make workplace positive so it directly influence workforce.

Workplace environment is crucial for causing employee's engagement or disengagement. Research by (Roelofsen, 2002) concluded that improving the workplace environment reduces absenteeism and complaints while increasing productivity. In a study by Wells (2000) it was found out that workplace satisfaction has been directly associated with job satisfaction. At present it has been found that, employees comfort level on the job, is determined by suitable workplace environment and conditions, as an important factor for measuring productivity. To attain a high level of productivity, organizations must ensure that physical environment is helpful to organizational needs opening the doors for privacy, interactions, functionality and cross disciplinarily. Therefore, the physical environment is a tool that can influence business results (Mohr, 1996) and well-being of employee's (Huang, Robertson and Chang, 2004). Taking safety perspective into consideration, Gyekye (2006) concluded that environment conditions affect the safety of employees which shows a direct influence on employee commitment. In a study by Roelofsen (2002) suggested that improving workplace environment results in less number of absenteeism, complaints and increase in productivity. Patterson et al., (2003) found that the more satisfied employees are with their jobs the better the organization performs in terms of productivity and profitability

I. DISCUSSION

Self-efficacy is a belief about one's ability to accomplish specific tasks which influences the tasks employees choose

for themselves. Self-efficacy affects employee's level of persistence and effort when doing any difficult tasks.

Implications of Self-Efficacy at Workplace

Bandura in his book, *Self-Efficacy: The Exercise of Control* devotes attention to the workplace. Recently, he provided researches dealing with direct and indirect influence of self-efficacy on work-related personal and organizational effectiveness (Bandura, 2004). This research include a broad range of subjects such as teaming, training and development, innovation, stress and leadership. From this research on self-efficacy, the following implications are provided (Ivancevich, Konopaske, & Matteson, 2011; Luthans, Yuussef, & Avolio, 2007):

- **Selection/Promotions**
Organizations should select individuals with high level of self-efficacy, as these people will be motivated to engage in behavior/ attitude that help them to perform well at workplace. A measure of self-efficacy can be carried out during the selection/ promotion process.
- **Training and Development**
Organizations should acknowledge employees level of self-efficacy when selecting among candidates for training and development programs as these employees will learn more from training and will use that learning to enhance their job performance.
- **Goal Setting and Performance**
Organizations can boost performance from employees who tend to have a higher level of self-efficacy which in turn lead to higher level of job performance from employees, which is very important for organizations in time of high competition. (8)
"People's self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles" (Bandura, 1989, p. 1176).
The significance of reward in the day to day performance of employees cannot be over emphasized especially when it comes to reward. The performance of employees these days increase by any kind of reward being given to them. Enhancing and maintaining intrinsic motivation among employees requires supportive environment at workplace (Froiland, 2011a; Froiland, 2010; Froiland et al., 2012; Ryan & Deci, 2000). Organizations these days t.ke up "one-size fits all" approach to motivate their employees by offering them solutions such as paying more money or giving them rewards for their dedication. Ryan et al. (2000) in his study pointed out that for high level of intrinsic motivation an individual must experience satisfactions for autonomy and competence.

II. RECOMMENDATIONS

From the study, social modelling and social persuasion can be used by organizations to enhance employee's self-efficacy. It is suggested that managers should encourage their employee to believe in their capabilities and skills to succeed in their work tasks. Management teams should give encouragement to their employees in order to overcome self-doubt which they have within themselves and instead of doubting their

capabilities, they should focus on giving the best effort. Senior management teams in organizations should act as models to other employees in order to enhance their self-efficacy which will lead to the achievement of goals at organization. Managers should also ensure about the safety and satisfaction of their employees by providing them good benefits, allowances and wages. Training programs and workshops should be organized for both employees and managers in order to develop high level of self-efficacy. Employee performance is function of competence and motivation. Employees should be provided with stable work environment providing job security which will highly motivate employees. Proper promotions and compensations provided to employees always result in high level of motivation among employees. Employees should be provided with incentives and perks on regular basis in order to increase their level of motivation at workplace. Acknowledging and rewarding employees for their outstanding performance always enhance level of motivation at workplace. Managers need to understand the wants, needs, goals and values of their employees in order to enhance their motivation at workplace. There should be open communication between managers and their employees. Managers should encourage their employees to engage themselves in organizational missions.

III. LIMITATION

With regard to the literature review, limited literature seems to exist on Employees of private and public sector. Previously, work has been done on self-efficacy and intrinsic motivation but not much has been done when we compare employees of private and public sector. This lack of information limited the determination of a theoretical relationship.

IV. CONCLUSION

On the basis of present study it can be concluded that self-efficacy and intrinsic motivation are important variables in workplace environment. Self-efficacy is a construct that exhibits positive organizational characteristics like orientation to work, job satisfaction and personal commitment. Employees who are highly involved in their jobs tend to set high standards of performance and take up more challenging task. They have a sense of responsibility and have optimistic attitude towards their work. Employees with high levels of self-efficacy shows higher levels of commitment. Enhancing and maintaining intrinsic motivation among employees requires supportive environment. When employees are intrinsically motivated at workplace, they learn more, exhibit better behavior, are happier and aspire to contribute for the betterment of organization. When employees are intrinsically motivated to make the most of their learning opportunities and treat others well in the organizations, they are truly preparing themselves to contribute to the betterment of society.

V. REFERENCES

- Al-Eisa, A. S., Furayyan, M. A., & Alhemoud, A. M. (2009). An empirical examination of the effects of self-efficacy, supervisor support and motivation to learn on transfer intention. *Management Decision*, 47, 1221-1244. <http://dx.doi.org/10.1108/00251740910984514>
- Amabile, T. M., Phyllis, G., & Shereen, C. B. (1990). Social Influences on Creativity: Evaluation, Co action, and Surveillance, *Creativity Research Journal*, 3, 6–21.
- Amtmann, D. et al., (2012). University of Washington Self-Efficacy Scale: A New Self-Efficacy Scale for People with Disabilities, 93.
- Antoni, G. (2009). Intrinsic vs. Extrinsic motivations to Volunteer and Social capital formation. *Kyklos*, 62(3), 359-370.
- Ballout, H. I. (2009). *Career commitment and career success: moderating role of self-efficacy*. *Career Development International*, 14. <http://dx.doi.org/10.1108/13620430911005708>
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, 88(1), 87-99.
- Bandura, A. (2002). Environmental sustainability by sociocognitive deceleration of population growth. In P. Schmuck & W. Schultz (Eds.), *the psychology of sustainable development*, 209-238. Dordrecht, the Netherlands: Kluwer.
- Bandura, A. (1989) Human agency in social cognitive theory, *American Psychologist*, 44(9), 1175-1184.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- Battistich, V., Schaps, E., Watson, M., Solomon, D., & Lewis, C. (2000). Effects of the child development project on students' drug use and other problem behaviors. *The Journal of Primary Prevention*, 21, 75–99.
- Deci, E L., & Ryan, R. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49(1), 14-23.
- Deci, E.L. (1971). Intrinsic Motivation, Extrinsic Reinforcement, and Inequity. *Journal of Personality and Social Psychology*, 22, 1, 113-20.
- Earley, P. C., & Lituchy, T. R. (1991). Delineating goal and efficacy effects. A test of three models. *Journal of Applied Psychology*, 76, 81-98.
- Filipe Coelho, M. A. (2011). Contextual Factors and the Creativity of Frontline Employees: The Mediating Effects of Role Stress and Intrinsic Motivation. *Journal of Retailing*, 87(1), 31-45.
- Froiland, J.M. (2011a). Parental autonomy support and student learning goals: A preliminary examination of an intrinsic motivation intervention. *Child and Youth Care Forum*, 40(2), 135-149.
- Froiland, J.M., Smith, L., & Peterson, A. (2012). How children can be happier and more intrinsically motivated while receiving their compulsory education. In A. Columbus (Ed.), *Advances in Psychology Research: Vol. 87* (pp. 85-112). Hauppauge, NY: Nova Science.
- Gottfried, A.E. (1990). Academic intrinsic motivation in young elementary school children. *Journal of Educational Psychology*, 82, 525-538.
- Grant, A.M. (2008). Does intrinsic motivation fuel the prosocial Fire? Motivational synergy in predicting persistence, performance and productivity. *Journal of Applied Psychology*, 93(1), 48-58.
- Gyekye, S. A. (2006). Safety Management: Perceptions of Workplace Safety. *Professional Safety*, 51(7), 34-41.
- Hackman, J.R. and Oldham, G.R. (1974), "The job diagnostic survey: an instrument for the diagnosis of jobs and the evaluation of job redesign projects", Technical Report No. 4. Department of Administrative Sciences, Yale University, New Haven, CT.
- Heuven, E, Bakker, A. B., Schaufeli, W. B., Huisman, N., 2006, The Role Of Self Efficacy in performing emotion work. *Journal of Vocational Behaviour* 69(2), p. 222-235
- Huang, Y. H., Robertson, M. M., and Chang, K. I. (2004). The role of environmental control on environmental satisfaction, communication, and psychological stress: effects of office ergonomics training. *Environment and Behavior*, 36(1), 617-638.
- Ivancevich, J. M., Konopaske, R., & Matteson, M. T. (2011). *Organizational behavior and management* (9th ed.). New York, NY: McGraw-Hill.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits - self-esteem, generalized self-efficacy, locus of control, and emotional stability - with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80-92. <http://dx.doi.org/10.1037/0021-9010.86.1.80>
- Kanfer, R., & Ackerman, P. L. (1996). A self-regulatory skills perspective to reducing cognitive interference. In I. G. Sarason, B. R. Sarason, & G. R. Pierce (Eds.), *Cognitive interference: Theories, methods, and findings* (pp. 153-171). Mahwah, NJ: Lawrence Erlbaum.
- Leon-Perez, J. M., Medina, F. J., & Munduate, L. (2011). Effects of self-efficacy on objective and subjective outcomes in transactions and disputes. *International Journal of Conflict Management*, 22. <http://dx.doi.org/10.1108/10444061111126693>
- Locke, E. A., & Latham, G. (2002). Building a practically useful theory of goal setting and task motivation. A 35-year Odyssey. *American Psychologists*, 57, 705
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital*. New York, NY: Oxford University Press.
- Oldham, Greg R. and Anne Cummings. (1996). Employee Creativity: Personal and Contextual Factors at Work, *Academy of Management Journal*, 39(3), 607–34.

- Olusola, O. (2011). Intrinsic Motivation, Job Satisfaction and Self-Efficacy as Predictors of Job Performance of Industrial Workers in Ijebu Zone of Ogun State. *The Journal of International Social Research*, 4.
- Patall, E.A., Cooper, H. & Robinson J.C. (2008). The effects of choice on intrinsic motivation and related outcomes: a meta-analysis of research findings. *Psychological Bulletin*, 134(2), 270-300.
- Patterson M G, West M A, Lawthorn R and Nickell, S. (1997). Impact of People Management Practices on Business Performance, (Issues in People Management No 22), Institute of Personnel and Development, London
- Quigley, N.R. and Tymon, W.G. Jr. (2006). Toward an integrated model of intrinsic motivation and career management, *Career Development International*, 11(6), 522-43.
- Robbins, S. B., Lauver, K., Le, H., Davis, S., Langley, R., & Carlstrom, A. (2004). Do Psychosocial and Study Skill Factors Predict College Outcomes? A Meta-Analysis. *Psychological Bulletin*, 130, 261-288. <http://dx.doi.org/10.1037/0033-2909.130.2.261>
- Roeloelofsen P. (2002). The impact of office environments on employee Performance: The design of the workplace as a strategy for productivity enhancement. *Journal of Facilities Management*; 1 (3), 247 – 264.
- Ryan, R.M. & Deci, E.L. (2002). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Education Psychology*, 25, 54-67.
- Ryan, R.M. & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Shalley, Christina E., J. Zhou and Greg R. Oldham (2004). The Effects of Personal and Contextual Characteristics on Creativity: Where Should we go from Here? *Journal of Management*, 30 (6), 933–58.
- Shernoff, D.J. & Csikszentmihalyi, M. (2009). Flow in schools: Cultivating engaged learners and optimal learning environments. In R.C. Gilman, E.S. Heubner and M.J. Furlong (Eds.), *Handbook of positive psychology in schools* (pp. 131–145). New York: Routledge.
- Taberner, C., & Wood, R. E. (1999). Implicit theories versus the social construal of ability in regulation and performance on a complex task. *Organizational Behavior and Human Decision Processes*, 78, 104-127.
- Thomas, K. B., & Velthouse, B. A. (1990). Cognition elements of empowerment: an "interpretive" model of intrinsic task motivation. *Academy of Management Review*, 15, 666-681.
- Vancouver, J. B., Moore, K. M., & Yoder, R. J. (2008). Self-efficacy and resource allocation: Support for a non-monotonic, discontinuous model. *Journal of Applied Psychology*, 93, 35-47.-717.
- Vancouver, J. B., Thompson, C. M., & Williams, A. A. (2001). The changing signs in the relationships among self-efficacy, personal goals, and performance. *Journal of Applied Psychology*, 86, 605-620.
- Warr, P.B., Cook, J.D. and Wall, T.D. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being, *Journal of Occupational Psychology*, 52, 129-48.