

The Impact of Intrinsic and Extrinsic Rewards on Teachers Creativity

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The research is financed by Asian Development Bank. No. 2006-A171(Sponsoring information)

Abstract

The principal objective of the study is to investigate the impact of intrinsic and extrinsic rewards on teachers' creativity. Teachers' creativity is used as dependent variable while intrinsic and extrinsic rewards are used as independent variables. The data are collected from 150 respondents through questionnaires. The principal component analysis (PCA) is applied to check the data validity. The reliability analysis is also performed to make the data reliable. Ordinary least square regression method is used to analyze the impact. The study reveals a positive impact of intrinsic rewards on teachers' creativity. The extrinsic rewards also have positive impact on teachers' creativity. It is concluded that rewards enhances creativity behavior of employees. The study recommends increasing intrinsic and extrinsic rewards to enhance teachers' creativity.

Keywords: Intrinsic Rewards, Extrinsic Rewards, Teachers Creativity

DOI: 10.7176/JRDM/56-03

Publication date: June 30th 2019

1. Introduction

Creative behavior of employees is considered to be a robust driver of organizational survival, success and performance in short as well as long run situation (Hunter, Bedell and Mumford, 2007 and Anderson, Potoenik, and Zhou, 2014). This is the need of creativity which influences both academia and industry (Bodla and Naeem, 2014). In order to enhance this creativity, many organizations develop different reward systems to enhance the creative behavior of employees (Edwards, 1989). There has been an extensive debate on the factors explaining creative behavior of employees. An area of creative research attracts considerable interest of research for the impact of intrinsic and extrinsic rewards on creative behavior of employees.

The debate on the association between creativity and rewards is as old as the research on employee creativity behavior itself (Cummings, 1965 and Glucksberg, 1962). There are two important perspectives that are used to describe this association; the behavioral perspective and cognitive perspective. The behavioral perspective represents the extrinsic rewards as a positive supports which enhances creativity (Amabile, 1985 and Deci, Koestner and Ryan, 1999). The cognitive perspective represents extrinsic rewards as determinant of creative behavior and intrinsic motivation (Eisenberg, Pierce and Cameron, 1999; Friedman, 2009).

1.1 Creativity

Creativity is defined as the usage of original ideas or imaginations to create and innovate something; creativity is an important area of research that is neglected in the business research Guilford (1950). Up to now, the research in creativity witnesses tantamount growth in the efforts of research in order to identify the drivers of creative behavior of employees (Shalley, Zhou, and Oldham, 2004).

During the last five decades, the research on creativity has produced more than ten thousand studies; however, several issues are still there that creativity researchers are facing, these issues even include the definition of creativity and literature reviews on reward creativity relationship (Prabhu, Sutton and Saucer, 2008 and Batey and Furnham, 2006). Defining creativity is a complicated task as creativity is to be defined as a process of thoughts (like divergent thinking), in terms of behavior (like searching new ways for conducting same task) and in terms of final product (like investing in new plants). There are four different approaches through which creativity can be explained (Mooney, 1963):

- i. The creativity process
- ii. The creative product or creativity output

- iii. The creative personality or the person who brings creation
- iv. The creative environment or the environment about which creation comes

On the basis of above approaches, there are number of creativity's definitions identified by Taylor (1988) over the five decades. One of these definitions is considered in this study; creativity is defined in many assorted ways that it has almost ceased to mean anything (Batey and Furnham, 2006). Creativity can also be defined as an outcome in the form of process, product or service which is useful as well as innovative and creative (Amabile 1996 and Amabile, 1983). This definition is frequently used by many researchers (Oldham and Cummings, 1996; Amabile, Conti, Coon, Lazenby and Herron, 1996; Fong, 2006; Gilson and Madjar, 2011 and Shalley, Gilson and Blum, 2000).

1.2 Intrinsic and Extrinsic Rewards

Intrinsic reward is described as the desire to accomplish an action by itself, to practice pleasure in its performance without expectation of any external reward (Sagiv, Arieli, Goldenberg, & Goldschmidt, 2010). Intrinsic reward comes from within the worker (Amabile, Hill, Hennessey, and Tighe, 1994). For those individuals who are intrinsically motivated, a task becomes a reward for them (Lepper, Greene, and Nisbett, 1973).

Contrarily, extrinsic reward is defined as a visible and tangible thing given to an employee or individual on the basis of achievement (Deci and Ryan, 1985). Extrinsic rewards have monetary value like bonus, award, salary hike or public recognition. A relation between extrinsic reward and behavior refers to extrinsic motivation. For intrinsic motivation, there is no interaction between behavior and extrinsic rewards (Cooper and Jayatilaka, 2006).

Explaining shortly, the rewards that promote intrinsic motivation are known as intrinsic rewards, these include enjoyment, satisfaction and a sense of achievement. Alternatively, extrinsic rewards promote extrinsic motivation which includes financial and non-financial rewards like recognition and promotion.

1.3 Objectives of the Study

The objective of the study is:

- i. To investigate the impact of intrinsic rewards on teachers' creativity.
- ii. To quantify the effect of extrinsic rewards on teachers' creativity.
- iii. To provide useful guidelines to the policy makers as well as to the future researchers.

The remaining paper is organized as follows: section two explains the review of previous literature and development of hypothesis, section three presents the data and research methodology, section four describes the empirical results and discussions, section five provides the conclusion and paper ends with some future direction and limitations.

2. Literature Review

Balkin, Roussel and Werner (2013) studied the extrinsic rewards and their implications for creativity. They gathered data from 300 respondents through structured questionnaires. They found a direct association between extrinsic rewards and creativity. A significant relationship among low pay intensity, choice over timing, generalized outcomes of pay performance contingent pay, ex-post basis of pay and creativity was also found. Bodla and Naeem (2014) analyzed the mediating impact of creativity on the relationship between rewards motivation and performance of the organizations operating in India. The data from 180 respondents were collected through questionnaires. Performance was used as dependent variable while rewards motivation was used as independent variable. Creativity was used as mediating variable. They suggested that rewards motivations increased creativity which ultimately promoted performance.

Conti, Collins and Picariello (2001) demonstrated the effect of competition on intrinsic rewards and creativity. They observed a positive relationship between competition and intrinsic reward and negative relationship between intrinsic rewards and creativity. They found less creativity in females as compare to males. Males were also found to be more motivated (extrinsic and intrinsic) in the environment of competition than females. De Jesus, Rus, Lens and Imaginario (2013) studied the relationship between creativity and intrinsic rewards motivation. They used creativity as dependent variable and intrinsic rewards as independent variables. 302 questionnaires were filled out to collect the data. They found a positive interaction between intrinsic rewards and creativity. Furthermore, they also identified research design as a moderator between intrinsic rewards and creativity.

Deci, Koestner and Ryan (2001) identified the impact of extrinsic and intrinsic rewards in education sector of United States. The required data were gathered through structured interviews from 508 respondents. They found a negative relationship between monetary rewards and intrinsic motivation and a positive relationship between extrinsic rewards and motivation. They further said that all types of extrinsic rewards declined the intrinsic motivation. Eisenberger and Aselage (2009) investigated the impact of rewards on performance

pressure, intrinsic interest and creativity. The structured interviews were conducted from 609 respondents of USA residents. They said that expected reward paid for high performance motivated the worker for higher performance which ultimately increased creativity and interest. Eisenberg and Thompson (2011) observed the association between creative performance, stress, motivation rewards and competition. They found that competition increased motivation, motivation enhanced rewards, rewards increased creativity and creativity enhanced stress.

Friedman (2009) analyzed the impact of rewards on creativity. The data from United States' respondents were gathered through well-structured questionnaires. Creativity was used as dependent variable while extrinsic and intrinsic rewards were used as independent variables. A positive relationship between rewards and creativity was found. It was concluded that extrinsic and intrinsic rewards enhanced creativity with the condition that the rewards were to be paid upon creative performance. Grant and Berry (2011) studied the association among perspective talking, pro-social and intrinsic motivations and creativity. The data were gathered from the Indian respondents through interviews. A positive relationship between intrinsic motivation and creativity was found. Furthermore, it was also found that creativity strengthen the pro-social motivation and enhanced performance. Malik, Butt and Choi (2015) analyzed the relation between creative performance of employees and rewards with the moderating impact of locus of control, importance of rewards and creative self-efficacy. They observed a positive influence of extrinsic rewards on creativity. The relation between extrinsic rewards and creativity was moderated by personal disposition, values and locus of control. Navarrese Yauch Goff and Fonseca (2014) explained the impact of rewards, creativity, and organizational culture on workgroup performance of workers working in United States' organizations. A significant relationship between creative performance and individual creativity was found. They did not find any relationship between rewards and creative behavior of individuals. Wiltermuth and Gino (2013) analyzed whether intrinsic and extrinsic rewards increase motivation. They used rewards as independent variable and motivation and creativity as dependent variables. The study was conducted in the organizations working in India. They concluded that rewards significantly increased motivation and motivation, in turn, enhanced creativity.

Roskes, Dreu and Nijstad (2012) analyzed the impact of rewards and motivations on creativity and performance. They collected data from 302 respondents of United States. They found that there was a positive relation between rewards and creativity and rewards and performance. The individuals who avoided motivation were found less motivated than the individual who were highly motivated. Yoon, Sung and Choi (2015) studied the perceptions of employees towards extrinsic and intrinsic rewards for creativity. The survey was conducted on more than seven hundred employees. A significant interaction was found between extrinsic and intrinsic rewards and creativity. They concluded that relationship between rewards and creativity was moderated through importance of rewards. Zhang, Long, Wu and Huang (2015) investigated the creativity of employees related to pay for performance in Chinese context. The data of 107 Chinese respondents were collected through structured questionnaires. They found a positive effect of performance based pay on creativity. It was observed that human resource practices weakened the positive association between performance based pay and creativity.

2.1 Development of Hypotheses

On the basis of above literature, the following hypotheses are constructed:

H₁: There is a positive impact of intrinsic rewards on teachers' creativity.

H₂: There is a positive impact of extrinsic rewards on teachers' creativity.

3. Data and Methodology

The study investigates the impact of extrinsic and intrinsic rewards on teachers' creativity. The data are collected from 150 respondents through well-designed questionnaires. The closed-ended questions are used in the questionnaire. All the items used in the questionnaires are adopted from previous researches. The principal component analysis (PCA) is applied to check the data validity. The reliability analysis is performed to make the data reliable. Finally, the ordinary least square method is used to analyze the impact of intrinsic and extrinsic rewards on teachers' creativity.

3.1 Variables Description

Two types of variables are used in the study; dependent and independent variables. The description of variables is given below:

3.1.1 Dependent Variable – Teachers Creativity

During the last five decades, the research on creativity has produced more than ten thousand studies; however, several issues are still there that creativity researchers are facing, these issues even include the definition of creativity (Prabhu, Sutton and Saucer, 2008 and Batey and Furnham, 2006). Defining creativity is a complicated task as creativity is to be defined as a process of thoughts (like divergent thinking), in terms of behavior (like searching new ways for conducting same task) and in terms of final product (like investing in new plants).

Creativity is defined as the usage of original ideas or imaginations to create and innovate something (Guilford, 1950). Creativity is also defined as an outcome in the form of process, product or service which is useful as well as innovative and creative (Amabile 1996 and Amabile, 1983). This definition is frequently used by many researchers (Oldham and Cummings, 1996; Amabile, Conti, Coon, Lazenby and Herron, 1996; Fong, 2006; Gilson and Madjar, 2011 and Shalley, Gilson and Blum, 2000).

3.1.2 Independent Variables – Intrinsic and Extrinsic Rewards

Intrinsic reward is described as the desire to accomplish an action by itself, to practice pleasure in its performance without expectation of any external reward (Sagiv, Arieli, Goldenberg, & Goldschmidt, 2010). Intrinsic reward comes from within the worker (Amabile, Hill, Hennessey, and Tighe, 1994). In contrast, extrinsic reward is defined as a visible and tangible thing given to an employee or individual on the basis of achievement (Deci and Ryan, 1985). Extrinsic rewards have monetary value like bonus, award, salary hike or public recognition. A relation between extrinsic reward and behavior refers to extrinsic motivation (Cooper and Jayatilaka, 2006).

3.2 Econometric Model

The following econometric model is used to analyze the impact of intrinsic and extrinsic rewards on teachers' creativity:

$$\text{Teachers Creativity} = \beta_0 + \beta_1 (\text{Intrinsic Rewards}) + \beta_2 (\text{Extrinsic Rewards}) + e$$

4. Results and Discussions

This section presents the results of PCA, descriptive statistics, reliability test, correlation analysis and regression analysis. Table 1 shows the demographic information of respondents. A total of 166 questionnaires are distributed to the teachers of both public and private colleges of city Lahore, Pakistan. Respondents return 150 questionnaires with a high response rate of 90%. The demographic information of respondents is presented in Table 1. 65.33% respondents are males while 34.67% are females. Out of total 150 respondents, 41.33% are within the age of 20-24 years while 21.34% are within the age of 35-44 years; the rest 37.33 respondents have the age of 25-34 years. 47.86% respondents have higher qualification of Masters of Philosophy. 12.67% (39.47%) respondents posit bachelors (masters) qualifications. The preferred language of 54% (46%) respondents is English (Urdu). 54.67% respondents belong to public institutes while 45.33% belong to private institutes.

Analysis on larger amount of data is very difficult to handle, the study reduces the data from large number of items to smaller number of constructs through factor analysis (principle component analysis). The principle component analysis posits that the value of KMO must exceed 0.6 and the level of significance (Bartlett test) should be less than 0.05. Once these assumptions are fulfilled, the principle component analysis (PCA) reduces data through variance rotation method. PCA gives Eigen values and those constructs are considered principle component whose Eigen values are greater than 1. If only one Eigen value exceeds 1, it means there is only one principle component which shows that all the values are loaded into a single component and all the loading values must exceeds 0.40; here, the data are considered to be valid and it is known as convergent validity. Again, if more than one Eigen values exceed 1, it means that there are more than one principle components, meaning that all the values are loaded in more than one component. In this case, the data have two values; loading values and cross loading values. The larger value of all the components is considered as the loading value while the smaller value is considered as cross loading value. In this situation, loading values should exceed 0.4 and cross loading values should be less than 0.4; here, the data are considered to be valid and is known as discriminate validity. Shortly, when only 1 Eigen value exceeds 1, this is convergent validity and when more than one Eigen values exceeds 1, this is discriminate validity.

Table 2 shows the presumptions of PCA, the value of KMO for all components exceeds 0.60 and the significance level of Bartlett's Test of Sphericity is less than 0.05, so the study can go for further analysis. Those components of a construct considered to be a principle component that has an Eigen value greater than 1. Table 3 shows the Eigen value (as well as total variance explained by each Eigen value) of each component. Two components are extracted from the five constructs (salary, performance bonus, career development, development opportunities, employee satisfaction and job performance) of rewards and teacher creativity. Whereas, only one component is extracted from the two constructs (promotion and working conditions). So, discriminate validity is analyzed from those constructs having two components and convergent validity is analyzed from those having one component.

Table 4 provides the validities of all the measures used in the instrument. Two constructs of promotion and working conditions have only one Eigen value which is greater than 1. The related items of these two components are loaded only in one component, and all the items have values greater than 0.4. It posits that there exists convergent validity in the data.

All the constructs' items of salary, performance bonus, career development, development opportunities, employee satisfaction, job performance are loaded in two components, all the loaded values exceed 0.4 and all

the cross loading values are less than 0.4. There is presence of discriminate validity in the data. The above arguments demonstrate that all the data collected through instruments are valid.

In order to determine the internal consistency (reliability) of the instrument, the reliability test is also applied. Table 5 shows that all the variables have alpha coefficient above 0.70; showing that the instrument is reliable. Salary, performance bonus, promotion, career development, development opportunities, working conditions, employee satisfaction and job performance has alpha coefficient of 0.78, 0.71, 0.90, 0.82, 0.79, 0.73, 0.70 and 0.74 respectively.

Table 6 reports the descriptive statistics outcomes of all the variables used in the study. The mean value of salary is 4.14 ranging from 2 to 4. The average value of performance bonus, promotion, career development, development opportunities, working conditions, employee satisfaction and job performance is 4.32, 4.21, 4.17, 3.98, 2.18 and 4.97 respectively.

The correlation analysis is used to predict the nature of correlation. Table 7 presents the results of Pearson Correlation Matrix for dependent and independent variables. There is weak correlation among all the variables. The highest correlation coefficient (0.45) is in between teacher creativity and extrinsic rewards. It shows that multicollinearity does not affect the data.

Table 8 presents the results of regression analysis for the impact of intrinsic and extrinsic rewards on teachers' creativity. There is significant positive ($\beta = 0.0632$, $p < 0.05$) impact of intrinsic rewards on teachers' creativity. The positive coefficient of intrinsic rewards shows that increasing 1% of rewards leads to increase teachers' creativity by 6.3%. The extrinsic rewards also show significant positive ($\beta = 0.0248$, $p < 0.05$) impact on teachers' creativity. One percent increase in extrinsic rewards causes to increase teachers' creativity by 2.4%. The results are consistent with previous studies. (Yoon, Sung and Choi, 2015; Zhang, Long, Wu and Huang, 2015; Malik, Butt and Choi 2015; Bodla and Naeem, 2014; Navarrese Yauch Goff and Fonseca, 2014; Wiltermuth and Gino, 2013; Balkin, Roussel and Werner, 2013; De Jesus, Rus, Lens and Imaginario, 2013; Grant and Berry, 2011; Eisenberg and Thompson, 2011; Sagiv, Arieli, Goldenberg and Goldschmidt, 2010; Eisenberger and Aselage, 2009; Friedman, 2009; Conti, Collins and Picariello, 2001; Deci, Koestner and Ryan, 2001).

Rewards motivations increase teachers' creativity which ultimately promotes performance. Expected reward against high performance motivates the worker for higher performance which ultimately increase creativity and interest (Eisenberg and Thompson, 2011). The teachers should be competent as the competition increases motivation, motivation enhances performance, performance increase rewards, and rewards increase creativity and creativity increase competition (Sagiv, Arieli, Goldenberg and Goldschmidt, 2010), and the cycle begins again from competition. Extrinsic and intrinsic rewards enhance creativity with the condition that the rewards are to be paid upon creative performance.

5. Conclusions

Creative behavior of employees is considered to be a robust driver of organizational survival, success and performance in short as well as long run situation (Hunter, Bedell and Mumford, 2007 and Anderson, Potoenik, and Zhou, 2014). This is the need of creativity which influences both academia and industry (Bodla and Naeem, 2014). In order to enhance this creativity, many organizations develop different reward systems to enhance the creative behavior of employees (Edwards, 1989). There has been an extensive debate on the factors explaining creative behavior of employees. An area of creative research attracts considerable interest of research for the impact of intrinsic and extrinsic rewards on creative behavior of employees.

The study, therefore, investigates the impact of extrinsic and intrinsic rewards on teachers' creativity. The data are collected from 150 respondents through well-designed questionnaires. The closed-ended questions are used in the questionnaire. The principal component analysis (PCA) is applied to check the data validity. The reliability analysis is performed to make the data reliable. Finally, the ordinary least square method is used to analyze the impact of intrinsic and extrinsic rewards on teachers' creativity.

There is significant positive impact of intrinsic rewards on teachers' creativity. The positive coefficient of intrinsic rewards shows that increasing 1% of rewards leads to increase teachers' creativity by 6.3%. The extrinsic rewards also show significant positive impact on teachers' creativity. One percent increase in extrinsic rewards causes to increase teachers' creativity by 2.4%. Rewards motivations increase teachers' creativity which ultimately promotes performance. Expected reward against high performance motivates the worker for higher performance which ultimately increase creativity and interest (Eisenberg and Thompson, 2011). The teachers should be competent as the competition increases motivation, motivation enhances performance, performance increase rewards, and rewards increase creativity and creativity increase competition (Sagiv, Arieli, Goldenberg and Goldschmidt, 2010), and the cycle begins again from competition. Extrinsic and intrinsic rewards enhance creativity with the condition that the rewards are to be paid upon creative performance. It is concluded that rewards enhances creativity behavior of employees. The study recommends increasing intrinsic and extrinsic rewards to enhance teachers' creativity.

5.1 Limitations and Directions for Future Research

The study has some limitations and directions for future research:

- i. The study only used cross-sectional design; future researchers can use longitudinal design to analyze the impact of intrinsic and extrinsic rewards on creativity.
- ii. The study only focused on quantitative data through questionnaires, future study may be conducted through qualitative data using interviews technique.
- iii. Due to limited time, the study only focused on a specific area of city Lahore, Pakistan, future research could be undertaken in the other areas of Pakistan.

References

- Amabile, T. M. (1983). *The social psychology of creativity*. New York: Springer - Verlag.
- Amabile, T. M. (1985). Motivation and creativity: Effects of motivational orientation on creative writers. *Journal of personality and social psychology*, 48(2), 393.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., and Herron, M. (1996). Assessing The Work Environment For Creativity. *Academy of Management Journal*, 39(5), 1154-1184.
- Amabile, T. M., Hill, K. G., Hennessey, B. A., and Tighe, E. M. (1994). The Work Preference Inventory: Assessing Intrinsic and Extrinsic Motivational Orientations. *Journal of personality and social psychology*, 66(5), 950-967.
- Anderson, N., Potočnik, K., and Zhou, J. (2014). Innovation and Creativity in Organizations A State-of-the Science Review, Prospective Commentary, and Guiding Framework. *Journal of Management*, 40(5), 1297-1333.
- Balkin, D. B., Roussel, P., and Werner, S. (2013). Extrinsic Rewards and Autonomy: Implications for Rewarding Creativity. Paper presented at the Academy of Management Proceedings.
- Batey, M., and Furnham, A. (2006). Creativity, Intelligence, and Personality: A Critical Review of the Scattered Literature. *Genetic, Social and General Psychology Monographs*, 132(4), 355-429.
- Bodla, M. A., and Naeem, B. (2014). Creativity as Mediator for Intrinsic Motivation and Sales Performance. *Creativity Research Journal*, 26(4), 468-473.
- Bodla, M. A., and Naeem, B. (2014). Creativity as Mediator for Intrinsic Motivation and Sales Performance. *Creativity Research Journal*, 26(4), 468-473.
- Conti, R., Collins, M. A., and Picariello, M. L. (2001). The impact of competition on intrinsic motivation and creativity *Personality and individual Differences*, 30, 1273-1289
- Cooper, R. B., and Jayatilaka, B. (2006). Group Creativity: The Effects of Extrinsic, Intrinsic, and Obligation Motivations. *Creativity Research Journal*, 18(2), 153-172.
- Cummings, L. (1965). Organizational climates for creativity. *The Academy of Management Journal*, 8(3), 220-227.
- De Jesus, S. N., Rus, C. L., Lens, W., and Imaginario, S. (2013). Intrinsic Motivation and Creativity Related to Product: A Meta-analysis of the Studies Published Between 1990–2010. *Creativity Research Journal*, 25(1), 80-84.
- Deci, E. L., and Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., Koestner, R., and Ryan, R. (1999). A meta-analytic review of experiments examining the role of extrinsic rewards on intrinsic motivation. *Journal of Applied Psychology*.
- Deci, E. L., Koestner, R., and Ryan, R. M. (2001). Extrinsic Rewards and Intrinsic Motivation in Education: Reconsidered Once Again. *Review of Educational Research*, 71(1), 1-27.
- Edwards, M. R. (1989). Measuring Creativity at Work: Developing a Reward-For-Creativity Policy. *The Journal of Creative Behavior*, 23(1), 26-37.
- Eisenberg, J., and Thompson, W. F. (2011). The effects of competition on improvisers' motivation, stress, and creative performance. *Creativity Research Journal*, 23(2), 129-136.
- Eisenberger, R., and Aselage, J. (2009). Incremental effects of reward on experienced performance pressure: positive outcomes for intrinsic interest and creativity. *Journal of Organizational Behavior*, 30(1), 95-117.
- Eisenberger, R., Pierce, W. D., and Cameron, J. (1999). Effects of Reward on Intrinsic Motivation - Negative, Neutral and Positive. *Psychological Bulletin*, 125(6), 677-691.
- Fong, C. T. (2006). The Effects of Emotional Ambivalence on Creativity. *Academy of Management Journal*, 49(5), 1016-1030.
- Friedman, R. S. (2009). Reinvestigating the effects of promised reward on creativity. *Creativity Research Journal*, 21(2-3), 258-264.
- Friedman, R. S. (2009). Reinvestigating the effects of promised reward on creativity. *Creativity Research Journal*, 21(2-3), 258-264.
- Gilson, L. L., and Madjar, N. (2011). Radical and incremental creativity: Antecedents and processes. *Psychology*

- of Aesthetics, Creativity, and the Arts, 5(1), 21-28.
- Glucksberg, S. (1962). The influence of strength of drive on functional fixedness and perceptual recognition. *Journal of Experimental Psychology*, 63(1), 36.
- Grant, A. M., and Berry, J. W. (2011). The Necessity of Others is the Mother of Invention: Intrinsic and Prosocial Motivations, Perspective Taking, and Creativity. *Academy of Management Journal*, 54(1), 73-96.
- Guilford, J. P. (1950). Creativity. *American Psychologist*, 5, 444 - 454.
- Hunter, S. T., Bedell, K. E., and Mumford, M. D. (2007). Climate for Creativity: A Quantitative Review. *Creativity Research Journal*, 19(1), 69-90.
- Lepper, M. R., Greene, D., and Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the overjustification hypothesis. *Journal of personality and social psychology*, 28, 129-137.
- Malik, M. A. R., Butt, A. N., and Choi, J. N. (2015). Rewards and employee creative performance: Moderating effects of creative self-efficacy, reward importance, and locus of control. *Journal of Organizational Behavior*, 36(1), 59-74.
- Mooney, R. L. (1963). A conceptual model for integrating four approaches to the identification of creative talent in Scientific Creativity: Its Recognition and Development, ed. CW Taylor and F. Barron. In C. W. Taylor and F. Barrons (Eds.), *Scientific Creativity: its recognition and development* (pp. 331- 340).
- Navarrese, D. O., Yauch, C. A., Goff, K., and Fonseca, D. J. (2014). Assessing the Effects of Organizational Culture, Rewards, and Individual Creativity on Technical Workgroup Performance. *Creativity Research Journal*, 26(4), 439-455.
- Prabhu, V., Sutton, C., and Sauser, W. (2008). Creativity and certain personality traits: Understanding the mediating effect of intrinsic motivation. *Creativity Research Journal*, 20(1), 53-66.
- Roskes, M., De Dreu, C. K., and Nijstad, B. A. (2012). Necessity is the mother of invention: avoidance motivation stimulates creativity through cognitive effort. *Journal of personality and social psychology*, 103(2), 242.
- Sagiv, L., Arieli, S., Goldenberg, J., and Goldschmidt, A. (2010). Structure and freedom in creativity: The interplay between externally imposed structure and personal cognitive style. *Journal of Organizational Behavior*, 31(8).
- Sagiv, L., Arieli, S., Goldenberg, J., and Goldschmidt, A. (2010). Structure and freedom in creativity: The interplay between externally imposed structure and personal cognitive style. *Journal of Organizational Behavior*, 31(8).
- Selart, M., Nordström, T., Kuvaas, B., and Takemura, K. (2008). Effects of reward on self-regulation, intrinsic motivation and creativity. *Scandinavian Journal of Educational Research*, 52(5), 439-458.
- Shalley, C. E., Gilson, L. L., and Blum, T. C. (2000). Matching Creativity Requirements and the Work Environment: Effects on Satisfaction and Intentions to Leave. *Academy of Management Journal*, 43(2), 215-223.
- Shalley, C. E., Zhou, J., and Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6), 933-958.
- Taylor, C. W. (1988). Various approaches to and definitions of creativity. In R. J. Sternberg (Ed.), *The concept of creativity: Contemporary Psychological Perspectives* (pp. 99-121). Cambridge, England: Cambridge University Press.
- Wiltermuth, S. S., and Gino, F. (2013). "I'll have one of each": How separating rewards into (meaningless) categories increases motivation. *Journal of personality and social psychology*, 104(1), 1-13.
- Yoon, H. J., Sung, S. Y., & Choi, J. N. (2015). Mechanisms underlying creative performance: employee perceptions of intrinsic and extrinsic rewards for creativity. *Social Behavior and Personality: An international journal*, 43(7), 1161-1179.
- Zhang, Y., Long, L., Wu, T. y., and Huang, X. (2015). When is pay for performance related to employee creativity in the Chinese context? The role of guanxi HRM practice, trust in management, and intrinsic motivation. *Journal of Organizational Behavior*.

APPENDIX

Table 1: Demographic Information of Respondents

Demographics	Particulars	Frequency	Percentage
Gender	Male	98	65.33
	Female	52	34.67
Age	20-24	62	41.33
	25-34	56	37.33
	35-44	32	21.34
Qualification	Bachelors	19	12.67
	Masters	60	39.47
	M.Phil.	71	47.86
Language	English	81	54.00
	Urdu	69	46.00
Institute	Public	68	45.33
	Private	82	54.67

Table 2: KMO and Bartlett Test Significance

Constructs	No. of items	KMO	Bartlett't test of Sphericity Significance
Salary	4	0.8216	0.000
Performance Bonus	4	0.7328	0.000
Promotion	3	0.9318	0.000
Career Development	4	0.9821	0.000
Development Opportunities	4	0.9120	0.000
Working Conditions	3	0.7000	0.000
Employee Satisfaction	6	0.8271	0.000
Job Performance	6	0.8216	0.000

Note: The value of KMO shows “in the 0.90s: Marvelous, in the 0.80s: Meritorious, in the 0.70s: Middling, in the 0.60s: Mediocre, in the 0.50s: Miserable, Below 0.50: Unacceptable”.

Table 3: Eigen Values and Total Variance Explained

Constructs	Components	Eigen Values	Total Variance Explained
Salary	Comp 1	1.689	42.223
	Comp 2	1.254	31.342
Performance Bonus	Comp 1	1.266	31.656
	Comp 2	1.156	28.898
Promotion	Comp 1	1.187	35.156
Career Development	Comp 1	1.307	32.683
	Comp 2	1.091	27.285
Development Opportunities	Comp 1	1.652	41.299
	Comp 2	1.175	29.376
Working Conditions	Comp 1	1.275	42.492
Employee Satisfaction	Comp 1	1.795	29.915
	Comp 2	1.382	23.028
Job Performance	Comp 1	1.864	47.726
	Comp 2	1.409	23.475

Table 4: Validities of Measurements

Items	Components		Items	Components	
	Comp 1	Comp 2		Comp 1	Comp 2
Salary	0.456	0.244	Working Conditions	0.987	
S1	0.678	0.378	W1	0.876	
S2	0.239	0.679	W2	0.782	
S3	0.345	0.788	Employee Satisfaction	Comp 1	Comp 2
Performance Bonus	Comp 1	Comp 2	E1	-0.580	0.598
B1	0.764	-0.137	E2	-0.020	0.865
B2	0.774	0.169	E3	0.383	0.713
B3	0.163	0.765	E3	0.769	0.113
B4	-0.131	0.750	E4	0.749	0.135
Promotion	Comp 1		E5	0.015	0.635
P1	0.897		E6	0.345	0.786
P2	0.876		Job Performance	Comp 1	Comp 2
P3	0.765		J1	0.634	-0.407
Career Development	Comp 1	Comp 2	J2	-0.871	0.793
C1	0.854	-0.059	J3	-0.183	0.891
C2	0.887	0.051	J4	-0.246	0.845
C3	0.280	0.804	J5	0.903	-0.003
C4	-0.305	0.775	J6	0.920	-0.031
Development Opportunities	Comp 1	Comp 2			
D1	-0.208	0.823			
D2	0.345	0.779			
D3	0.833	0.252			
D4	0.743	-0.159			

Table 5: Reliability Test

Construct	Number of Items	Cronbach's Alpha (α)
Salary	4	0.7824
Performance Bonus	4	0.7158
Promotion	3	0.9010
Career Development	4	0.8214
Development Opportunities	4	0.7924
Working Conditions	3	0.7328
Employee Satisfaction	6	0.7012
Job Performance	6	0.7421

Note: Acceptable if $\alpha > 0.70$.

Table 6: Descriptive Statistics

Particulars	N	Minimum	Maximum	Mean	S.D
Salary	150	2.00	4.00	4.1478	0.8521
Performance Bonus	150	2.00	3.00	4.3214	0.3627
Promotion	150	2.00	5.00	4.2147	0.2587
Career Development	150	2.00	4.00	4.1789	0.3258
Development Opportunities	150	2.00	4.00	3.9831	0.9632
Working Conditions	150	2.00	4.00	3.8214	0.3147
Employee Satisfaction	150	1.00	4.00	2.1874	0.8147
Job Performance	150	2.00	5.00	4.9712	0.2871

Table 7: Pearson Correlation Matrix

Variables	Teachers Creativity	Extrinsic Rewards	Intrinsic Rewards
Teachers Creativity	1		
Extrinsic Rewards	0.4587	1	
Intrinsic Rewards	0.3652	0.4215	1

Table 8: Regression Analysis [Dependent Variables: Teachers Creativity]

Variables	Coefficient	t-statistics	p-value
Constant	0.0258	2.0145	0.0256*
Intrinsic Rewards	0.0632	3.0258	0.0148*
Extrinsic Rewards	0.0248	4.3684	0.0000*
R ²	0.6258		
Adjusted R ²	0.5935		

Note: (*) shows level of significance at 5%.

IMPACT OF REWARD ON TEACHERS CREATIVITY

Dear Respondent,

I am evaluating the impact of reward on teacher's creativity. The information provided by you will assist me in shaping my research. Please take a moment to complete this survey for the current one-way trip that you are making. **"Thank you"**.

SECTION 1: DEMOGRAPHIC INFORMATION

What is your gender?	What is your age?	Your qualification?	What is your preferred language?	What is the institute you belong?
Male	00-19 45-54	Illiterate Inter.	English Urdu	private public
Female	20-24 55-64	Primary Bachelor	Punjabi Other	
Other	25-34 65-74	Middle Masters		
	35-44 75+	Metric M.Phil.		
		Other		

SECTION 2: EXTRINSIC REWARD						
1: strongly disagree, 2: disagree, 3: neutral, 4: Agree, 5: strongly agree						
Sr.	Particulars	1	2	3	4	5
SALARY						
S1	Your organization access your chances of salary improvement periodically					
S2	Your organization gives you salary equivalent to your job task					
S3	Your organization gives you salary on time which motivates you to perform better					
S4	Your organization increases the salary of its employees based on their performance					
PERFORMANCE BONUS						
B1	Your organization provides organization bonus to boost your motivation					
B2	Your organization recognized your extra effort with bonus					
B3	Your organization gives bonus on individual performance					
B4	If you work harder your organization gives more bonus					
PROMOTION						
P1	Your organization gives promotion on individual performance					
P2	You organization gives promotion on experience basis					
P3	Organization gives promotions only its old employees					
SECTION 2: INTRINSIC REWARD						
1: strongly disagree, 2: disagree, 3: neutral, 4: Agree, 5: strongly agree						
Sr.	Particulars	1	2	3	4	5
Career development						
C1	Employee receive regular development through workshops					
C2	Your organization will pay for your training					
C3	Your organization emphasize its employees to seek assistance from professionals					
C4	The manager supports career development plans					
Development opportunities						
D1	Your organization invest in training of employees					
D2	Your organization dictates strongly on career development					
D3	Your organization offer you career advancement options					
D4	If you work harder your organization gives more bonus					
Working conditions						
W1	Organization provide better working condition to enhances your performance					
W2	Organization provides freedom of opinion in decision making					
W3	Organization working environment is supportive					
SECTION 4: EMPLOYEE CREATIVITY						
Sr.	Particulars	1	2	3	4	
EMPLOYEE SATISFACTION						
E1	Present pay doesn't give any significant improvement in your living conditions					
E2	If another job will offer you more salary then you'll left this organization					
E3	Would you recommend your friend to join this organization					
E4	Dou you feel your job is secure					
E5	Salary is a satisfactory in relation to what you do					
E6	Salary increment is decided on a fair manner					
JOB PERFORMANCE						
J1	You are doing only what others wanted you to do					
J2	You feel pressurized to do the task well					
J3	You are able to complete the objectives of organizations					
J4	After performing any task, you felt that you had perform it well					
J5	Are you willing to Increase work Efforts in Order to Gain Reward					
J6	Incentives has a positive effect on your job performance					
"Thank you" for completing this questionnaire and providing valuable information.						