

SCALE DEVELOPMENT TO ASSESS THE EFFECTIVENESS OF EMPLOYEE PERFORMANCE MANAGEMENT SYSTEM IN INDIAN CONTEXT

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Abstract: Performance management has been a subject of research for a long time owing to its undoubted importance for the organizations. Ensuring an effective performance management system through its periodic evaluation therefore is as important as managing the employees' performance itself. Questionnaire survey is found to be most popular and feasible method to achieve this objective. However there are no 'off-the-shelf' available scales that can be used. Hence the research in this area continues. This article attempts to develop a scale that is expected to be more widely acceptable and usable as it covers a vast variety of aspects of performance management. The methodology used in this research is Delphi technique for content development followed by verification of reliability and validity of the scale.

INTRODUCTION

Performance appraisal (PA) has been with us for all of human history and it shows no prospects of being ready for the rubbish heap (Saskin, 1944). It has a pretty long history over which it has evolved from a conventional and arbitrary judgment process to a motivational and developmental tool. It is therefore important to understand what all changes in its design, implementation and maintenance time to time have led to this transformation. This knowledge can be helpful in developing it further. The research in performance management has progressed steadily over last six to seven decades covering different aspects of performance managements as it is known today. The available literature mostly talks about effectiveness of different aspects of performance appraisal while discussing effectiveness of Performance Management System (PMS) which is a much wider concept and often the two terms 'performance appraisal' and 'performance management' are used interchangeably as would be evident in the entire review and discussion. The wide spread use of appraisals can be attributed to the belief that performance appraisal is a critically needed tool for effective human resource management and performance improvement (Longenecker & Goff, 1992). It is so important that, often it is mistaken for performance management itself and whenever performance management is discussed, most of the people end up discussing about performance appraisal.

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The performance management system (PMS) in organizations across the industries suffer from variety of problems. Often there is a lack of clear understanding about the entire system and the performance appraisal which is one of the most important elements of the performance management system, is misunderstood as a judgment process in which the supervisors are considered to be the “judges” and the employees are considered as the “accused”. It is also thought that the performance appraisal is a tool which gives wielding power to the supervisors. Furthermore, it is considered as rigid and the procedures therein are impersonal. Due to lack of clarity about the performance goals for individual employees, very often, it so happens that the employees get surprises at the end of appraisal period as there is a mismatch between what is *performed* and what is *measured*. The high expectations from PMS very often end up into reality of conflicts, resistance and other problems arising out of PMS itself. As a result, many of the employees and even some managers do not want to discuss about it (Roberts & Pregitzer, 2012). The effectiveness of PMS can be enhanced by attending to the problems associated with PMS and taking care of the factors likely to affect PMS which can prove to be critical success factors (CSF). The need for studying the effectiveness of PMS also arises from the fact that an effective PMS provides competitive advantage to the organizations, it removes the adhocism and can be better integrated with other HR processes. The employees’ participation in PMS also increases with its effectiveness (SrinivasaRao, 2007). Another important justification for evaluation of performance management system is to make it legally defensible as employee termination or low rating and consequent demotion or denial of promotion or even employment harassment can be potential reasons for lawsuits against the organizations, though these kinds of problems are more seen particularly in developed countries than developing countries like India. In order to keep the performance management a robust tool, it is necessary to evaluate it periodically. Murphy & Cleveland (1995); Brown (2008) suggest that performance management system is a dynamic behavioural tool. It should be reviewed and updated whenever the organization face new challenges, introduce intervention programs or changes its strategy. It is very important to further the knowledge in the area of performance management so as to improve its effectiveness. Thus far, efforts to formulate a conceptual framework or a comprehensive approach to look at evaluation of PMS have failed to include one or the other important variable. The researchers have touched upon one or the other aspect of effectiveness of performance management system but a comprehensive approach is not seen. Overlaps are also seen in different authors’ work on evaluation of different elements of performance management system including performance appraisal. The performance management system is evaluated using theoretical frameworks, empirical studies and experts’ opinion time to time. Usually, to evaluate the performance management system is to evaluate the policies, programmes, tools and techniques related to performance management and establish their linkages

with the organizational outputs and outcomes. The techniques used by organizations to evaluate the performance management systems range from collecting simple informal feedback from the stakeholders to running elaborative surveys across the organizations and assess if all the aspects of the system are being implemented and operated well so as to produce the desired results. The available research on evaluation of performance management is fragmented and inconsistent. Every researcher tried to touch upon one or the other aspect of performance management system and a comprehensive approach taking into consideration all the aspects of PMS related to different phases of PMS is not available. This researcher therefore has combined multiple approaches to develop a scale that can assess the effectiveness of PMS. The researcher this way has attempted to add to the existing pool of knowledge

This researcher therefore attempts to address the question of effectiveness of performance management systems of the organizations through the present research study by developing a scale that can be used to assess the effectiveness of PMS with a comprehensive view. This way the present study will certainly add to the existing pool of knowledge about performance management which in turn, will help improve its effectiveness.

LITERATURE REVIEW

The focus of this research is to develop a scale for evaluating the performance management system. The literature review therefore mainly covers the concepts of scale development, variables in performance management effectiveness in addition to a few citations about the concepts and importance of performance management and different approaches to evaluation of performance management.

DeNisi & Griffin (2006) define performance management as the set of activities carried out by the organization to change (improve) employee performance while Armstrong (1995) describes performance management as the *process* for developing a shared understanding about what is to be achieved, and an *approach* to managing and developing people in a way which increases the probability that it will be achieved in the short and long-term. There are many more definitions not included here for the sake of brevity.

In spite of extensive research and practice for understanding and focusing on how to improve employee performance, the formula for an effective performance management system has been elusive (Pulakos & O'leary, 2011). In spite of having volumes of research on the mechanics of appraisal (Bretz *et al.*, 1992; Fletcher, 2001; Murphy & Cleaveland, 1995) questions that have yet to be pursued in the literature include: what leads to performance appraisal system effectiveness and how can performance appraisal system effectiveness be defined? How can

organizations understand if their performance appraisal system is effectively producing their desired results?

The perception and meaning of effectiveness may vary with the organizations and stake holders depending upon the context and purpose it is expected to serve. Chandra Shekhar (2007) found that the perception of employees about effectiveness of PMS varies with their job levels and personal factors, though not significantly in the context of engineering organization. Mohrman, Resnick-West, & Lawler (1984) emphasize the need to understand the different perceptions of managers and subordinates about performance appraisals. Longenecker & Nykodym (1996) cited in Anseel & Lievens (2007) in their study in public sector concluded that though the needs and expectations of managers and subordinates from appraisal are different, they need to have a shared perception about the intended purpose and process. The performance appraisal system would be effective to the extent of shared perception between managers and subordinates about the purpose and function served by the process and to the extent it satisfies the needs of both the parties. For the organization, the appraisal that would improve employees' performance and help maintaining a happy and healthy environment would probably be termed as effective while from the society's perspective an effective performance appraisal would fairly assess the employee performance and provide equitable opportunities to the employees without any discrimination (Kondrasuk, 2011). In spite of all the varying views about effectiveness of performance appraisal, there is a consensus that a performance management system would be considered effective if it fulfils the objectives for which it exists (Longenecker, Liverpool & Wilson, 1988). Mondy (2010) gives characteristics of effective performance appraisal as job related criteria, performance expectations, standardization, trained appraisers, continuous and open communication, performance reviews and due process; and formal grievance procedure. When it comes to activities enhancing effectiveness of performance appraisal, Addison & Belfield (2007) report that monitoring in current times is preferred by employees rather than the carrot of deferred payments or stick of dismissal to motivate the employees. Hence there is reciprocal association between the performance appraisal and tenure.

Limited to purely academic sources, at least three options emerge about evaluating performance management or assessing the performance management effectiveness. Scholars interested in evaluating performance appraisal systems could focus purely on the psychometric properties of validity, reliability, accuracy of performance measures, and degree of rater error. However, these criteria are devoid of any organizational context. Alternatively, researchers could use different criteria for each organization to determine if each system is meeting its stated goals and purpose (Murphy & Cleveland, 1995). While this is responsive to organizational context, it inhibits our ability to make comparisons across organizations. A third option is a program evaluation approach tracking

perceptions, implementation, and outcomes over an annual performance cycle. Such an evaluation can include consideration of the degree of organizational alignment, employee performance at the beginning and end of the cycle, and the nature of performance driven behaviour in the organization (Silverman & Muller, 2009 cited in Rubin, 2011). From the above brief description, it is easy to see that: there is a wide variety of criteria to evaluate the performance appraisals and choosing any specific set of measures may be considered as arbitrary (Murphy & Cleveland 1995, 398).

The Criteria for evaluating an existing performance appraisal system are selected based on the goals of the system. It can range from *performance improvement*, post appraisal survey and consequent acceptability leading to *employee satisfaction* (Tziner & Kopelman, 2002; Carroll & Schneier, 1982; Mathis & Jackson, 2007) and *improved appraiser-appraisee relationship* (Wesley & Pulakos, 1983; Pulakos & O'leary 2011; Ochoti *et al.*, 2012) post appraisal. These criteria take the view point of both sides i.e. the organization and the employees on one hand and these are related to all the three phases of PMS i.e. design, implementation and maintenance on the other. These criteria are actually the intended outcomes of PMS. While developing the scale the above criteria were primarily considered to assess the effectiveness of PMS as they cover a vast variety of aspects of PMS.

Research Design: The research design relevant to this research is described as below:

Research question: Can and how a valid and reliable scale be developed to assess the effectiveness of performance management System (PMS)?

Objectives: The objectives for the present study in line with its title are as follows:

1. To identify the measures to assess effectiveness of performance management system
2. To develop a reliable scale that will be valid to assess the effectiveness of employee performance management system in Indian context.

Developing the scale: A step by step procedure followed to develop the scale to assess the effectiveness of performance management system is briefly described below:

Step 1: Identifying measures to assess effectiveness of PMS: There are different approaches to evaluate the performance management systems in the organizations depending upon the objectives of PMS. The objectives of PMS are generally in alignment with the organizational strategy that varies with the organizations. Hence it is extremely difficult to think of a 'universal' scale to evaluate the PMS. However the researchers have kept on adding new knowledge in this area. A general approach towards developing the scale can be considering

all those *factors which have potential to affect the organizational performance management system* as measures to cover the construct i.e. "Effectiveness of PMS".

Step 2: Generating the pool of items: As mentioned in the preceding step, all the factors affecting PMS identified through literature review are included in the initial pool of items. The prime consideration for including these factors is that the content of each item primarily reflect the construct of interest (DeVellis, 2003). The universe of items can be infinitely large. However the number of items included in the pool is driven by the type of construct, its homogeneity and the likes notwithstanding the fact that having as large number of items as possible so as to insure against the internal consistency of the scale even if some of them are proved to be redundant at a later stage. Considering it all, there were eighty six items included in the pool. It also satisfies the thumb rule of having minimum two times of the items in the final scale. The factors affecting PMS identified through literature review were converted into statements to make the scale items. While writing the items it is wise to include both positively and negatively worded items to avoid an agreement bias. However the items included in the present study were only positively worded to make them as reversing the polarity may sometimes confuse the respondents (DeVellis, 2003). Furthermore the items were kept neither too long nor too small balancing the brevity and length. The level of difficulty in reading was also taken care by duly considering both semantic and syntactic factors (Fry, 1977).

Step 3: Determining the format for measurement: A seven point Likert scale was used to elicit the responses. One of the essential characteristics of Likert scale is that all the scale item statements have equal weight which means all of them are more or less equivalent 'detectors' of the phenomenon of interest. The item statements in present research have been finalised based on their content validity ratio as per experts' opinion. The weight of all the item statements is supposed to be equal as we have included only those items that have been considered 'essential' by at least seventy five percent of experts on the panel resulting into a content validity ratio of 0.5 or more (Lawshe, 1975). If we had considered Thurstone scale instead of Likert scale, we would have to go with a different method of expert opinion wherein the experts are asked to assign the weights to the item statements according to their strength in measuring the given construct. It is not applicable in present research. Considering Q-Sort scale was not feasible as it requires physical presence of experts to choose the statements items. Semantic Differential is used to in reference to one or more stimuli to describe the attitude about a phenomenon to identify the most appropriate perceived stimuli about the given phenomenon. Since the words used in the scale in the present research are simple to understand, the researcher did not feel necessary to apply Semantic Differential scale by any means. Considering all this, the use of Likert scale is justified. The practice varies about using the number of response categories used in Likert scale. Some

researchers use even number of categories ranging from two to eight while some use odd number of points so as not to force the respondents to give a unidirectional response. The middle point on the scale in case of odd number of categories provides an opportunity to check neutral if the respondents do not have a firm opinion. The number of options used should be good enough to ensure enough variation in responses else its utility will be restricted but at the same time it should not be too large to bore or fatigue the respondents (DeVellis, 2003). Seven point scale is always preferred over a five point scale as it provides more variation in responses. Hence a seven point Likert scale was used in the present research.

Step 4: validity and Reliability of scale: Validity of instrument refers to the degree to which it measures what it is designed to measure. It is actually the utility of the instrument. If it does not measure what it is intended to measure, it is useless. Different types of validity is briefly described here. Depending on the specific situation for the scale, the creators may choose to use one or many of the various validation methods.

Translation Validity

Translational validity refers to the degree to which the construct can be translated into the operationalization (Trochim, 2007). There are two types of translation validity; 1. Face validity and 2. Content validity as explained below.

Face Validity

As the name itself suggests the face validity of a questionnaire is its appearance with regard to its purpose. This in a sense clarifies whether at face value; the questions appear to be measuring the construct. It is subjective but systematic assessment of the content to which a scale measures a construct (Malhotra, 2010). This researcher ensured the face validity of the scale by own judgment and opinion of experts.

Content Validity

If the content of a questionnaire adequately represents the universe of all relevant items under study, it is said to be content valid (Cooper & Schindler, 2006). It includes observing all the items in the scale to ascertain that the questionnaire addresses the overall topic. The common methods to evaluate content validity are judgment and evaluation by panel of experts to check the *content validity ratio (CVR)*. To ascertain the content validity of the questionnaire, the test items in the questionnaire are rated by panel of experts as *essential, useful but not essential or not necessary*. The responses on each item from all the panellists are evaluated by calculating their CVR (Lawshe, 1975) and then the *content validity index (CVI)* of the entire scale is calculated as the average content validity ratio and it represents the content validity of the whole instrument.

The content validity in the present study was ensured by taking experts opinion on all eighty six items and retaining only those items having the content validity ratio equal to or more than 0.50 (much more than the minimum acceptable value of 0.42 for twenty experts at 5% level of significance (Lawshe, 1975). The content validity index for the whole instrument was found to be 0.68 which is well within acceptable limit. Most of the test items were extracted from the existing literature hence the content validity has been well established (Ref. Table 2).

Step 5: Inclusion of validation items: To avoid any kind of bias in response due to social desirability, care needs to be taken while phrasing the item statements. This was taken care of by repetitively taking experts opinion about validity of the items.

Step 6: Administer items to a development sample: The scale comprising of forty valid items was administered upon a group of twenty experts and the scores were recorded.

Step 7: Evaluation of items: The ultimate quality desirable in the scale items is that an item should be highly correlated with the true scores of the latent variable. To achieve this, the first quality we seek in a set of scale items is that they be highly correlated. This is ensured through examining the reliability of items which indicates the internal consistency of the items in addition to stability and equivalence. A reliable test instrument contributes to validity but it may not be a valid instrument i.e. the instrument may give consistently wrong results (Cooper & Schindler, 2006). The overall Cronbach alpha (α) is presented in the table. However due to practical considerations, stability measurement in survey situations is more difficult (Cooper & Schindler, 2006). Hence it was not excluded. Equivalence is taken care automatically as there are multiple raters (respondents).

The Cronbach alpha (α) values for the scale is found to be well within the acceptable limits (Nunnally & Bernstein, 1994)

Table 1
Cronbach Alpha (α) Value for Complete Scale

<i>Cronbach's Alpha</i>	<i>N of Items</i>
0.592	40

Step 8: Optimized scale length: Longer scales have higher reliability while shorter ones have their own advantage in terms of brevity and reduced burden on the respondents. This researcher considered the length aspect of the scale right from the development stage and the number of items retained in the scale is neither too large nor too small.

CONCLUSION

The scale consisting of forty items (shown in table 2) has been developed using expert opinion method and verified for its validity and reliability as described above is a good.

MANAGERIAL IMPLICATION

The scale developed in this research can be used to assess the effectiveness of organizational performance management system as it covers a vast variety of variables representing different aspects of PMS.

SCOPE FOR FURTHER RESEARCH

This can be further improved by varying the methods of identification of items,, format of scale, number of response options etc so as to develop still better understanding of the phenomenon and consequently further strengthening the scale developed through this study.

LIMITATIONS

The research is a continuous process wherein every researcher tries to contribute in his own way in the pool of knowledge in the given area. This researcher has attempted to add to the existing pool of knowledge in the area of evaluation of organizational performance management. Although a rigorous step by step process has been followed in developing the scale, it will always have some limitations in terms of the method and the format etc. The expert opinion method has its own limitations that does not need a separate explanation while Likert scale has a limitation in terms of the assumption that all the items are equally weighted which itself is considered as a weakness.

Table 2
Content Validity Ratios of Scale Items

S. No.	Variable (Factor of Effectiveness of PMS)	Flagging (Naming) of Variables	Content Validity Ratio (CVR)
1	Commitment / Management commitment / Top management support	Management Commitment and Support	0.6
2	Leadership	Leadership	0.9
3	Compliances/ legal requirements	Compliances	0.5
4	Internal resources	Internal resources	0.7
5	Performance oriented culture / organizational culture	Organizational culture	0.9
6	Maturity of PMS.	Maturity of PMS.	0.6

contd. table 2

S. No.	Variable (Factor of Effectiveness of PMS)	Flagging (Naming) of Variables	Content Validity Ratio (CVR)
7	Employee trust in PMS	Employee trust in PMS	0.8
8	Employee participation	Employee participation	0.8
9	Training the appraisers	Training the appraisers	0.6
10	Employee perception of fairness of the system/ Bias freeness of system	Employee perception of fairness of the system	0.8
11	Flexibility / Flexible nature of PMS	Flexibility of PMS	0.7
12	Firm performance and strategy / PMS alignment with organizational strategy	PMS alignment with organizational strategy	0.9
13	Frequency of appraisal / No regular reviews / continuity of PMS	Frequency of appraisal	0.8
14	Legal PMS	Legal PMS	0.6
15	Simple Appraisal form/easy to operate	Simple Appraisal form	0.7
16	Appropriate performance parameters	Appropriate performance parameters	0.8
17	Measurement focus	Measurement focus	0.8
18	Goal setting and communication	Goal setting and communication	0.6
19	Employees knowing how they are performing / Continual feedback / Feedback Mechanism	Feedback Mechanism	0.7
20	Rater accuracy/ accuracy of appraisal ratings	Rater accuracy	0.9
21	Appeal process / Opportunities to challenge	Appeal process	0.8
22	Timely completion of appraisal	Timely completion of appraisal	0.6
23	Separate salary decisions and performance improvement discussions	Separate salary decisions and performance improvement discussions	0.5
24	Using appraisal results to identify strengths and weaknesses	Using appraisal results to identify strengths and weaknesses	0.6
25	Use of appraisal results for Training need identification / Learning & development	Use of appraisal results for Training need identification	0.9
26	Pay for performance / Use of appraisal results for reward decisions/salary administration / Structure of rewards	Using appraisal results to determine pay for performance	0.9
27	Use of appraisal results for HR planning	Use of appraisal results for HR planning	0.6

contd. table 2

S. No. PMS)	Variable (Factor of Effectiveness of	Flagging (Naming) of Variables	Content Validity Ratio (CVR)
28	Using appraisal results for organizational goal setting / Using appraisal for KRA fixation for future / Using appraisal results for role definition	Using appraisal for KRA fixation	0.6
29	Interpersonal relationships / rater-ratee relationship	rater-ratee relationship	0.5
30	Organization buy-in / acceptance of PMS	Acceptance of PMS	0.9
31	Providing equal opportunity to perform i.e. equal resources and similar work conditions are provided to all the employees in a particular job category	Equitable PMS	0.5
32	has clear rating scales wherever applicable	Clarity of Rating scales	0.6
33	have an effective performance feedback process	Effective feedback process	0.8
34	Documentation and records	Rewards for intangible outputs	0.7
35	To Identify performance related problems	Mid course correction if required	0.7
36	Performance improvement and employee development	Performance improvement	
37	Potential assessment of employees	Documentation and records	0.7
38	Reward for intangible outputs like efforts put in by the employees rather than only results	Identify performance related problems	0.5
39	Mid course correction if required	Potential assessment of employees	0.6
40	has appropriate weightage for all performance / parameters	Appropriate weightage	0.6

References

- Addison, John T., Belfield Clive R. (2007), The Determinants of Performance Appraisal Systems: A note (do Brown and Heywood's Results for Australia hold up for Britain?), IZA Discussion Papers, No. 3065.
- Anseel, F. & Livens, F. (2007), The Long-term Impact of Feedback Environment on Job Satisfaction: A Field Study in Belgian Context, *Applied Psychology: An International Review*, doi: 10.1111/j.1464-0597.2006.00253.x
- Armstrong, M. (1995), *A Handbook of Personnel Management Practice*, London, Kogan page Ltd.
- Bretz, R. D. Jr, Milkovich, G. T. & Read, W. (1992), The Current State of Performance Appraisal Research and Practice; Concerns, Directions and Implications", *Journal of Management*, Vol. 18, No. 2, pp. 321-352.

- Brown, M. (2008), Challenges to Implementing Performance Management, *National Programme Management Commission*, CA (paper is based on a presentation by Michael Brown given at the first meeting of the National Performance Management Commission, June 30 through July 1, 2008).
- Carroll & Schneier (1982), Daily R. C. & D. J. Kirk, D. J. (1992). Distributive and Procedural Justice as Antecedent of Job Dissatisfaction and Intent to Turn Over, *Human Relations*, Vol. 45, pp. 305-317 cited in Roberts, G.E. (2003). Employee participation in performance appraisal: A technique that works, *Public Personnel Management*, Vol. 32, No. 1.
- Chandra Shekhar, S. F. (2007), Assessment of Effectiveness of Performance Appraisal System: Scale Development and its Usage, ISSN 133, Vol. 3, Issue 4.
- Cooper, Donald R. & Schindler, Pamela S. (2006), *Business Research Methods*, 9th ed. The McGraw-Hill companies, New Delhi.
- DeNisi, A. S. & Griffin, R. W. (2006), *Human Resource Management*, 2nd ed., Biztantra Publishers, New Delhi.
- DeVellis, Robert F. Scale Development: Theory and Applications I by Robert F. DeVellis.-2•• ed. p. em. - (Applied social research methods series ; v. 26).
- Fletcher, C. (2001), Performance Appraisal and Management: The Developing Research Agenda, *The Journal of Occupational and Organizational Psychology*, Vol. 74, 473-483.
- Fry, E. (1977), Fry's Readability Graph: Clarifications, Validity, and Extension to Level 17. *Journal of Reading*, 21, 249.
- Kondrasuk, J. N. (2011), So What an Ideal Performance Appraisal Look Like ?, *Journal of Applied Business and Economics*, Vol. 12(1), pp. 57-71.
- Longenecker, C. O., Liverpool, P. O. & Wilson, K. Y. (1988), An Assessment of Manager-subordinate Perceptions of Performance Appraisal Effectiveness, *Journal of Business and Psychology*, Vol 2, No. 4.
- Longenecker, C. O., & Nykodym, N. (1996), Public Sector Performance Appraisal Effectiveness: a Case Study cited in Public Personnel Management, 25 (2), 151-165 cited in Anseel, F. & Livens, F. (2007), The Long-term Impact of Feedback Environment on Job Satisfaction: A Field Study in Belgian Context, *Applied Psychology: An International Review*, doi: 10.1111/j.1464-0597.2006.00253.x
- Malhotra, N. K. (2010), *Marketing Research: An Applied Orientation* 6th ed. Pearson. New Delhi.
- Mohrman, A. M. Jr., Resnick-West, S. M. & Lawler, E. E. III (1989). *Designing Performance Appraisal Systems: Aligning Appraisals and Organizational Realities*, San Francisco, CA: Jossey-Bass Publishers.
- Mondy, R. W. (2010), *Human Resource Management*, 10th ed., Pearson Education New Delhi.
- Murphy, K. R. & Cleaveland, J. N. (1995). *Understanding Performance Appraisal: Social, Organizational and Goal based Perspectives*, Sage, Newbury Park CA, printed New Delhi; ISBN 0-8039-5474-3-ISBN-0-8039-5473-1 review copy referred from <http://books.google.co.in/books?hl=en&lr=&id=CnpuE09Vit0C&oi=fnd&pg=PR13&dq=legal+social+environment+%2B+performance+management%2Beffectiveness&ots=mbwdy0KkiX>
- Lawshe, C. H. (1975), A Qualitative Approach to Content Validity, *Personal Psychology*, 28, 563-575.

- Longenecker, C. O. & Goff, S. J. (1992), Performance Appraisal Effectiveness: A Matter of Perspectives, *Advanced Management Journal*, 57, 2, 18-23.
- Mathis, R. L. & Jackson J. H. (2003), *Human Resource Management*, 10th ed. Thompson South Western.
- Nunnally, J. C. & Bernstein, I. H. (1994), *Psychometric Theory*. (3rd.ed), McGraw-Hill, New York.
- Pulakos, E. D. & Ol'leary, R. S. (2011), Why is Performance Management Broken?, *Industrial and Organizational Psychology*, Vol. 4, Issue 2, pp. 146-164 retrieved on 11th Dec.2011 from <http://onlinelibrary.wiley.com/doi/10.1111/j.1754-9434.2011.01315.x>
- Ochoti, G. N., Maronga, E., Muathe, S., Nyabwanga, R. N., Ronoh, P. K. (2012), Factors Influencing Employee Performance Appraisal System: A Case Study of Ministry of State for Provincial Administration of Kenya, *International Journal of Business and Social Sciences*, Vol. 3, No. 20.
- Pulakos, E. D. & Ol'leary, R. S. (2011), Why is Performance Management Broken?, *Industrial and Organizational Psychology*, Vol. 4, Issue. 2, pp. 146-164 retrieved on 11th Dec. 2011 from <http://onlinelibrary.wiley.com/doi/10.1111/j.1754-9434.2011.01315.x>Rubin, E.V. (2011). Appraising Performance Appraisal Systems in the Federal Government :A Literature Review, Preliminary Findings, and Prospects for Future Research, Presented at the Public Management Research Conference June 2011, Syracuse University.
- Srinivasa Rao, A. (2007), Effectiveness of Performance Management System: An Empirical Study in Indian Companies, *International Journal of Human Resource Management* 18: 10, Oct 2007 pp. 1812-1840.
- Suri, R. K. & Verma, S. (2010), *Organizational Behaviour: Text and Cases*, Wisdom Publication, New Delhi.
- Trochim, William M. K. (2007), *Research Methods*, 2nd ed., Biztantra, New Delhi.
- Tziner, A. & Kopelman, R. E. (2002), Is there a Perfect Performance Rating Format?: A Non Psychometric Perspective, *Applied Psychology*, 51(3), 479-503.
- Wexley, K. N. & Pulakos, E. D. (1983), The Effects of Perceptual Congruence and Sex on Subordinates' Performance Appraisals of their Managers. *Academy of Management Journal*, 26, 666-676 citedin.

