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Competency Dynamics of Appraisers in Engineering Units: Empirical Insights from Kolhapur District

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Abstract
This study investigates the key factors influencing the competency of performance appraisers within engineering industrial units in Kolhapur district, Maharashtra. Using a mixed-methods approach, the research combines quantitative surveys and qualitative interviews to capture the perspectives of 120 appraisers and management staff. The analysis focuses on five critical dimensions: educational background, professional experience, training and development programs, technological proficiency, and organizational culture, to determine their impact on the effectiveness and accuracy of performance appraisals. The findings reveal that professional industrial experience and participation in structured training and development programs significantly enhance appraisers' competency and effectiveness. Appraisers with extensive industrial exposure exhibit better understanding and judgment in performance evaluations. Training programs focusing on skill-building and appraisal techniques were found to directly impact appraisal accuracy. Furthermore, the study highlights the contribution of higher educational qualifications and technological proficiency, with appraisers possessing advanced education and familiarity with digital appraisal tools delivering more precise and unbiased evaluations. Organizational culture also emerges as a critical determinant, shaping the attitudes and behaviors of appraisers. Supportive environments that foster collaboration and learning were shown to enhance competency, while rigid or hierarchical cultures posed barriers to effective appraisal practices. Correlation and regression analyses substantiate these findings, demonstrating strong relationships between training, technological integration, and organizational culture with improved appraiser performance. The study underscores the need for targeted interventions to address competency gaps. It provides actionable recommendations for practitioners, such as implementing regular training programs, introducing technology-driven appraisal systems, and fostering inclusive organizational cultures. These initiatives are vital for ensuring accurate performance evaluations, which in turn drive better decision-making and organizational outcomes. For scholars, this research contributes to the literature on performance appraisal systems by offering empirical insights into the dynamics of appraiser competency in the engineering sector. This comprehensive analysis bridges the gap between theoretical frameworks and practical implementation, emphasizing that sustained investment in education, technology, and culture is essential for optimizing appraisal processes. By enhancing the skillsets and tools available to appraisers, engineering industrial units can achieve more equitable and efficient performance management systems, ultimately contributing to overall productivity and organizational growth.

Keywords: Appraiser's competency, Employee performance, Performance Management, Organizational outcomes, Engineering industry.

Introduction

Appraisal competencies make a significant input as far as performance evaluation is concerned in industries, especially engineering ones. This paper established a relationship between appraisal practices both in the general scope of employee development, productivity, and organizational efficiency in engineering industrial units and the quality of appraisals in Kolhapur district, Maharashtra. Although given its importance, this area lacks well-defined literature about factors that influence appraiser competency in this scenario. To this end, this study addresses the following research questions: What are the determinants of appraiser performance concerning education qualification, experience, training, technological awareness, and organizational culture? Since this study sought both qualitative interviews and basic quantitative survey data, 120 appraisers and management personnel were interviewed. The study aims to explore the details of the relationship between these factors and the accuracy and efficacy of appraisal. Concerning these dynamics, the study aims to provide some recommendations, which may help to increase the level of competency of appraisers, in the framework of the developed overall recommendations to improve the quality of the industry. These findings are significant to future HR practices, and performance management methods applicable to the engineering industry.

Problem Statement

In the engineering area, specifically in the Kolhapur district of Maharashtra, performance appraisal is essential to increase employees' productivity, development, and overall organizational performance management. Nevertheless, there remains very little empirical work on the factors that make appraisers competent in this particular context. Although the importance of appraisers' competencies for correct and fair performance evaluations is known, the determinants including educational qualification, professional experience, training program, computer literateness, and organizational culture are also likely to have a great impact on appraisal quality. These factors however have not been sufficiently explored in the existing literature, particularly within the engineering industry in Kolhapur. This study attempts to fill this gap by investigating the role of these variables in the competency of the appraisers based on the relationship between technical awareness, training and development opportunities, and organizational environment with the utilization of performance appraisals. Thus, the problem becomes one of identifying and analyzing those critical factors that influence the competency of appraisers, and their impact on the accuracy and fairness of the performance appraisals, thereby proposing such actionable recommendations for practicing appraisals. In the engineering sector, improving appraiser competency is necessary to improve employee performance, deepen professional growth, and optimize organizational outcomes.

This study investigates the impact of technical awareness, training opportunities, and organizational environment on appraiser competency, focusing on their effects on the accuracy and fairness of performance appraisals. Enhancing appraiser skills is essential for fair evaluations, employee development, and organizational success.

Research Questions:

1. What factors influence appraiser competency in Kolhapur's engineering sector?
2. How do training, technical awareness, and organizational culture affect appraisal accuracy and fairness?
3. What strategies can improve appraiser competency and appraisal effectiveness?

Research Objectives

1. To identify the key factors influencing appraiser competency in the engineering sector of Kolhapur
2. To analyze the impact of training, technical awareness, and organizational culture on the accuracy and fairness of performance appraisals conducted by appraisers

Hypothesis

Hypothesis 1: The competency level of appraisers depends on their educational background.

Hypothesis 2: Appraiser competency and professional industrial experience are positively correlated

Hypothesis 3: There is a relationship between the competency of appraisers and their involvement in the training & development program.

Significance Of The Study

For several reasons, this study is important. Secondly, it addresses a notable gap in the literature by empirically analyzing factors about appraiser competency in the engineering sector, in Kolhapur, Maharashtra especially where little such research has been conducted. The study examines how such variables, for example, education, professional experience, training programs, technological proficiency, and organizational culture, relate to appraiser effectiveness and how this may influence performance appraisal quality. We further examine the implications of these findings for practical applications in Human Resource Management through actionable recommendations for enhancing appraiser competencies and finally facilitating high-quality and fair performance evaluation. This then increases employee development, productivity, and organizational performance. The study also contributes to the broader aim to create a culture of continuous improvement across the wider engineering sector given its importance for the industry's competitive making. Lastly, the research provides information on HR practices and policy decisions to develop better performance management strategies and adopt the appropriate interventions needed for the optimization of employee and organizational outcomes

.**Literature Review**

Aguinis, H. (2009). Performance management (2nded.).• In this book the author provides a comprehensive literature review focusing on performance management systems and using appraiser competency as a measure to increase the accuracy of employee ratings. the importance of appraiser competency in ensuring accurate employee evaluations. Aguinis also considers many sources of evidence that own the impact of appraisals, with an account of the level of appraiser training, the forms of feedback, and the corporate culture.

Pulakos, E. D. (2004). Performance management: The new way of achieving a successful outcome.• Pulakos discusses how the competency of the appraiser influences the effectiveness of the performance management system. review of performance management systems, emphasizing the importance of appraiser competency in ensuring accurate employee evaluations. Aguinis discusses various factors that influence the effectiveness of appraisals, including appraiser training, feedback mechanisms, and organizational culture.

Sharma, S. and Singh, A., 2015 Sharma and Singh (2015) examine the effects of organizational culture within performance assessments of appraiser competency. That is, they discover that a positive culture of trust, clarity, and support leads to the reliability and validity of the appraiser. This study therefore notes that organizations in the private sector, which embrace performance management and organizational culture motivating performance, generally have better appraisal systems than those in the public sector, which adopts more bureaucratic organizational cultures. Altogether, the open and learning communication organizational culture enhances appraiser competency in the assessment of the employees' performances.

DeNisi, A. S., & Pritchard, R. D. (2006). Based on this study, we have a framework with which to understand how appraiser competencies (such as experience and training) relate to individual performance outcomes as well as the quality of performance appraisals. Motivation theories for performance evaluation and appraiser skills are discussed by the authors.

Brown, M., & Heywood, J. S. (2005) This study looks at appraiser competency in managerial decision-making, with a focus on how hours of experience and educational background influence more accurate and accurate appraisals in industrial settings.

Kuvaas, B. (2006). In this paper, Kuvaas investigates the relationship between employee motivation and appraiser competency and notes that flawed performance appraisals originate in appraisers who are not sufficiently competent to provide constructive feedback and set clear performance goals.

Borman, W. C., & Motowidlo, S. J. (1997). This paper highlights the different competencies that appraisers need to apply while rating both tasks and contextual performance. It offers the appraisers a sound conceptual model through which they can assess both types of performance efficiently.

Kellough, J. E., & Nigro, L. G. (2002)Though carried out in the public sector, this research is very useful in performance appraisal with special stress on the features like training, experience, and qualification of the appraiser.

Rothwell, W. J., & Kazanas, H. C. (2003). Rothwell and Kazanas also examine the implication of training and development programs that are ongoing in perspective to competency improvement of appraisers especially in technical areas like engineering that have new tools, methods, and methodologies..

Meyer, J. P., & Allen, N. J. (1997). The present volume looks into experiences that underpin the competency of appraisers on how organizational culture affects the same.. How commitment culture enhances accident analysis, appraisal, and evaluation by examiners is the topic.

Landy, F. J., & Farr, J. L. (1980) This paper aims to review the performance rating systems and appraiser competency in providing accurate and valid performance. appraisals..This led to the conclusion that training, experience, and beliefs as well as attitudes of the appraisers directly affected the degree of accuracy shown in appraisal.

Venkatesh and Kumar (2016) in their study "Technological Integration in Performance Management: In "A Study on Indian Appraisers' Competency", the use of technology has been discussed in the expression the competency of appraisers in India. The study is centered on how the use of technology tools including performance management software, data analytics, and other digital platforms influences the capability of appraisers to evaluate the level of productivity of the employees. The authors state that technology it enables the appraiser to make better decisions, is more accurate, and less prejudiced in assessment. Additionally, the research finds out that since appraisers with high technological literacy can easily work with complicated performance information can monitor the progress of employees, and give timely feedback, they suit the job better. However, the study also proves that technology implementation is on the age of how appraisers are trained and supported and whether the skeptical community accepts it. All in all, the findings of the study hold strong evidence that advancing appraiser-embedded technologies premised on performance management increases overall competencies through improving procedural efficiency and decision-based accuracy.

Research Methodology
The research methodology adopted to study factors influencing the competency of appraisers in engineering industrial units in Kolhapur district, Maharashtra has been described in this section. The methodology of this study involves research design, population, and sampling, data collection methods as well as data analysis techniques.

Research Design
For this study, a mixed method approach was used—comprised of both qualitative and quantitative research methods. The approach was to provide for a thorough examination of appraiser competency through the combination of numerical data analysis with a deep dive into interview data. Quantitative was devoted to determining the relationships among certain factors (such as educational qualifications, years of work experience, training experience, etc.) and appliance competency. The qualitative component interviewed appraisers and management personnel and helped it to understand these factors better.

Population and Sampling

Population:
For this study appraisers and management personnel were taken from engineering industrial units in Kolhapur district of Maharashtra. They are the ones in charge of evaluating employees' performance in the cases of manufacturing and technical jobs. Appraisers with technical as well as managerial backgrounds actively participating in performance appraisals are the target population.

Sampling Method:
A stratified random sampling technique was employed to include a diverse range of appraisers and managerial personnel. Strata were formed based on an organizational level (line manager, department head, and senior) and individuals were randomly selected from each stratum. Such a sample size is enough to perform statistical analysis in quantitative research; therefore it was 120 respondents.

Inclusion Criteria:
- Respondents must be actively involved within the industrial unit in the performance appraisal process.•
- Appraisers should have a minimum of 1 year of experience within the industrial unit.

Data Collection Methods
The study adopted two primary data collection methods: structured surveys and semi-structured interviews.

a) Structured Surveys:
A structured questionnaire was developed to collect quantitative data. The questionnaire consisted of **closed-ended questions** designed to assess the following variables: Quantitative data were collected by developing a structured questionnaire. It involves closed-ended questions by including the following variables.

- **Educational Backgrounds** (e.g., Higher educational qualification, specialized degrees)
- **Professional Industrial Experience** (e.g., Total number of years of experience, relevant experience)
- **Training and Development Programs** (e.g., frequency and type of training (and participation in training workshops)
- **Technological Proficiency** (e.g., familiarity with using appraisal software, familiarity with data analytics tools)
- **Organizational Culture** (e.g., feedback culture, support for learning)
- **Appraiser Competency (** e.g. accuracy and consistency in evaluations, the capacity to specify reasonable performance standards, the capacity to provide constructive feedback, and the overall usefulness of the appraisal process in developing employee performance.)

Items to measure the perceived influence of these factors on respondents' competency as appraisers were rated from 1 (Strongly Disagree) to 5 (Strongly Agree).

Semi-Structured Interviews:
In-depth semi-structured interviews with 120 appraiser managers and senior appraisers were held to provide insight into the determinants of appraiser competency. The following were to be explored in the interview guide

- Experiences with training and development programs.

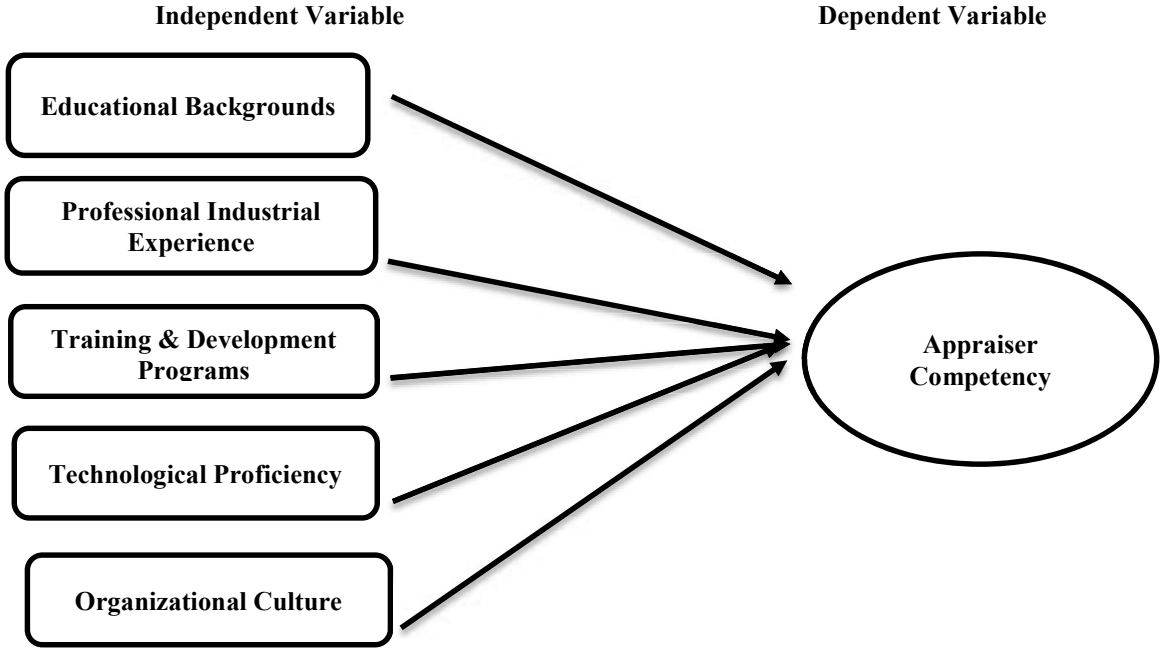
- Organization Culture Perceptions and their Effect on Accuracy of Appraisal.
- Issues of using technological tools for challenging appraisal
- Recommendations to enhance appraiser competency.

These interviews were **audio-recorded** and transcribed for analysis.

Conceptual Framework

The overall success of employee performance appraisal depends on the efficiency of performers who appraise or give feedback on the subject. Bias and prejudice enter into such decisions depending on certain factors that may affect the competency of an appraiser to make sound decisions and come up with a fair evaluation. This study identified the ability to define and understand the several components of appraiser competency to be crucial in enhancing performance appraisal systems. Decisions made by the personnel relate to the appraiser's education, work experience, training, development, technology competence, and organizational culture. The following conceptual framework demonstrated how these factors interplay and affect the competency of the appraisers while assessing the employees' performance.

Graph 1: Conceptual framework of Key Variables of Factors impacting on Appraiser's competence



*Source - Author's Independent Assessment.

As the following is the framework that reveals the factors influencing an appraiser's competence while appraising the employee's performances, shows the following factors include the following; educated background, the experience of the appraiser, training and development, technological skills, and organizational culture. There are good reasons for this: a strong academic background gives appraisers the appropriate knowledge, while professional experience refines these individuals' ability to implement this knowledge in practical evaluations. Continuing education makes appraisers up-to-date with current practices in the market and technological skills make their evaluations effective and quicker. Furthermore, the organizational environment drives the learning process, teamwork, and knowledge, all of which develop a competent appraiser in the field of employee assessment.

Results

The findings of data analysis based on determining the competency of appraisers in engineering industrial units in Kolhapur district Maharashtra are presented in this chapter. As discussed in the research methodology chapter, descriptive statistics were used to perform the data analysis and hypothesis testing. This analysis zeros in on some of the major factors —degrees, experience, training programs, technology familiarities, and culture. Work context dimensions were conjectured to have salient implications on appraiser competence.

Demographic Statistics

Table No. 1 Demographic Statistics of Appraiser's

Demographic Category	Details	Count (%)
Total Respondents	No. of Appraisers	**120**
Gender Distribution	Male	102 (85%)
	Female	18 (15%)
Age Distribution	18-30 years	30 (25%)
	31-40 years	42 (35%)
	41-50 years	30 (25%)
	51+ years	18 (15%)
Educational Background	Diploma Holders	36 (30%)
	Bachelor's Degree	66 (55%)
	Master's Degree	18 (15%)
Professional Industrial Experience	0-5 years	24 (20%)
	6-10 years	48 (40%)
	10+ years	48 (40%)

*Source - Author's independent assessment.

Descriptive Statistics

We computed descriptive statistics to summarize the data and better understand the general distribution of responses for each key variable (i.e., education credentials, work experience, training programs/technology exposure, and organizational culture) and appraiser competency. These statistics help summarize the data before going deeper by analyzing and testing a hypothesis.

Table 2: Descriptive Statistics Of Key Variables Of Factors Impacting On Appraiser's Competence

Variable	Mean	Standard Deviation	Min	Max
Educational Backgrounds	3.82	0.76	2	5
Professional Industrial Experience	4.1	0.81	2	5
Training & Development Programs	3.94	0.85	1	5
Technological Proficiency	4.05	0.78	2	5
Organizational Culture	4.18	0.72	2	5
Appraiser Competency	4.08	0.8	2	5

*Source - Author's independent assessment.

The above table no.1 represents Descriptive Statistics of Key Variables of Factors impacting on Appraiser's competence, analysis is given below

- **Educational Backgrounds:-** According to the results, the percentage of educational backgrounds of appraisers differs significantly from the Average value: 3.82. A coefficient of variation of 0.76 indicates a reasonably high dispersion of participants' educational backgrounds. It also indicates that while some 58 appraisers have little as formal education as a high school diploma, others have as much as a college education with the results ranging from 2 to 5. Appraiser competency is probably positively associated with higher education but there is heterogeneity in the sample.
- **Professional Industrial Experience** The mean score was 4.1, which shows that most of the participants possess substantial professional industrial experience as appraisers. The coefficient of variation of 0.81 shows that data variability is moderate meaning that while a majority of the appraisers may have accumulated more professional experience than the mean, there are some with less experience. The range (2 to 5) indicates that professional experience is highly valued and this we believe will help to enhance the competency of the appraisers.
- **Training & Development Programs**:- The score mean of 3.94 coaxes to the conclusion that while appraisers do attend some training & development programs, they do not do this to the maximum. The moderate value illustrates the fact that variability concerning the level of training is also high, with a

standard deviation of 0.85. The values of the training variable range from 1, which represents a very low level of training among some appraisers to 5, which represents a very high level of training among most appraisers. The nature of the training will enhance the competency of the appraisers, although there is evidence of variation in the participation or access to the training.

- **Technological Proficiency** Appraisers' average score of 4.05 suggests that appraisers are knowledgeable about technology but that there is variation in their technological sophistication. It means that technological familiarity varies moderately with a standard deviation of 0.78; minimum being 2 and maximum being 5. As highlighted in the research questions, the level of experience with technology is probably one of the factors that enhance appraiser competency given the current technological trends in the appraisal process.
- **Organizational Culture**:- This is a favorable mean score of 4.18 which indicates that the organizational culture within which appraisers undertake their work is favorable or rather productive. With a mean of 7.38, the conclusion can be drawn that most of the appraisers are experiencing a positive organizational culture and there may be several appraisers with as low as 2 suggesting that they may not view the organizational culture positively. Work environment support and the aspect of organisation culture which includes appraiser competency can also influence appraiser competency.
- **Appraiser Competency**:- The mean score of the dependent variable, the appraiser competency factor, is 4.08 showing that appraisers generally perceive themselves as competent in their role. The above work proves that there is variation, some appraisers rated themselves lower competency level (2) while others rated higher (5) in terms of competency as shown in SD 0.8. This is evidenced by a variation in the way appraisers reason and perceive their own competency or capability.

The above findings suggest that competency among the appraisers was conditioned by several variables, all of which presented significant variability across the sample. Education and professional background imply a range, more education seems to lead to higher competency estimates, yet a lot of variability is observed. The majority of appraisers have many years of prior professional experience; however, there is variation in experience levels, somewhat low. For the variable training and development programs, although appraisers engaged in the programs, the level of their engagement seems to indicate more growth that may be achieved in the future. Skill in technological application appears generally high though, not consistently with significant differences between appraisers in the current studies revealing tendencies toward still higher technological competence. Employees perceive the organizational culture more or less in a positive light, but a few might have had negative experiences from which their competency could be affected. In summary, although appraisers overall feel competent in their evaluation skills, the variability of response to this self-evaluation question underscores the fact that education, experience, training, technology, and culture combine to produce competency.

Correlation Analysis

Table 2: Pearson's Correlation Coefficients for Key Variables and Appraiser Competency

Variable	Educational Backgrounds	Professional Industrial Experience	Training & Development Programs	Technological Proficiency	Organizational Culture	Appraiser Competency
Educational Backgrounds	1	0.56**	0.45**	0.40**	0.53**	0.61**
Professional Industrial Experience	0.56**	1	0.50**	0.45**	0.60**	0.65**
Training & Development Programs	0.45**	0.50**	1	0.56**	0.58**	0.60**
Technological Proficiency	0.40**	0.45**	0.56**	1	0.52**	0.63**
Organizational Culture	0.53**	0.60**	0.58**	0.52**	1	0.70**
Appraiser Competency	0.61**	0.65**	0.60**	0.63**	0.70**	1
Note: $p < 0.01$						

*Source - Author's independent assessment.

The correlation coefficients from above table no.2 indicate strong positive relationships between all the key factors These results support the hypothesis that factors such as education, experience, training, technology, and organizational culture all have a positive influence on appraiser competency.

- The appraiser's educational level is positively correlated with appraiser competency at about a moderate level of r = 0.61. Most appraisers who have qualifications tend to be competent appraisers.
- The appraiser's professional experience is also highly correlated with the performance level of appraisers at r = 0.65which means, the more professional experience and competence the higher the performance.
- Attending training and interacting with technologies also appeared to have positive relations with the appraiser's ability performance level at r = 0.60 and r = 0.63 respectively which proves that the two practices are relevant in improving the accuracy of appraisal.
- At r = 0.70 organizational culture has the strongest relationship with the appraiser's ability and therefore where there is a friendly environment that encourages to engage in more learning, the appraisers in the organization perform better.

These results prove that education, experience, training, technology, and organizational culture are all interrelated and positively impact the ability of the appraiser.

Multiple Regression Analysis

To test the interaction effects among the independent variables on perceptual appraiser competency, a multiple regression analysis was run.

Table 3: Multiple Regression Analysis Results

Variable	Unstandardized Coefficient (β)	Standardized Coefficient (β)	t-value	p-value
Constant	1.13		4.52	0
Educational Backgrounds	0.29	0.22	3.68	0
Professional Industrial Experience	0.35	0.28	4.21	0
Training & Development Programs	0.23	0.18	2.97	0.003
Technological Proficiency	0.27	0.21	3.48	0.001
Organizational Culture	0.4	0.33	5.11	0
R^2 = 0.70 (Adjusted R^2 = 0.68)				

*Source - Author's independent assessment.

The results of the multiple regression analysis from above table no. 3 revealed that all the research independent variables are significant and positive predictors of appraiser competency

- Organizational Culture had the highest standardized coefficient of 0.33 while Professional Experience had 0.28 and Educational Qualification had a coefficient of 0.22. Based on this, it can be deduced that the organizational enabler and both experience and education are most likely to define appraiser competency.
- Training Programs and Technological Familiarity are also other determinants of appraiser competency and like the two above, they have a slightly lower coefficient compared to organizational culture and experience.

The value obtained of 0.70 shows that the independent variables used can account for 70% of the variation in competency of appraisers. This is a high percentage, which indicates that the model was an adequate fit with the values obtained in the data.

Hypothesis Testing

The hypotheses were analyzed through t-tests and ANOVA to establish the statistical difference where the degree of competency of the appraisers was measured using subsets such as; educational background, number of professional years of experience, and participation in training activities.

- **Hypothesis 1:** The competency level of appraisers depends on their educational background.
  • **t-test result:** The 't' value was also significant at 3.68 with a 'p' value < 0.01. Therefore, this hypothesis that individuals with higher levels of educational qualification are likely to be more competent appraisers was boosted.
- **Hypothesis 2:** Appraiser competency and professional industrial experience are positively correlated at a level of significance of 0.05.
  • **t-test result:** The t-test was also significant with t = 4.21 at p < 0.01; this underscores the fact that more experienced appraisers are more competent.
- **Hypothesis 3:** There is a relationship between the competency of appraisers and their involvement in the training and development program.

• **ANOVA result:** The p-value was also significant (p = 0.003), meaning that appraisers who engage in regular training show a higher competency than those who do not engage in training programs.

Discussion & Implication

This chapter discusses the results of the study regarding determinants of appraiser competency in engineering industrial units in the Kolhapur district of Maharashtra. The research explored five vital factors impacting appraiser competency: formal academic and/or part certification achievement, work experience, training, technology literacy, and organizational climate. All five factors posed a positive correlation with competencies among appraisers but organizational culture featured most prominently

Interpretation of Findings

Educational Backgrounds: Educational qualifications are strongly correlated with appraiser competency (r = 0.61), suggesting that higher levels of education translate into better performance appraisal by appraisers. While it impacts more than experience or organizational culture, it's not anywhere near as powerful.

Professional Industrial Experience: Professional experience was found to be a major determinant of competency, with a correlation of r = 0.65. The more experience an appraiser has, the more likely he or she is to make better decisions and assess performance more effectively.

Training & Development Programs: Appraiser competency was highly correlated with training programs (r = 0.60). All of this reinforces the idea that ongoing training will improve appraisal skills and knowledge, keeping appraisers' skills and knowledge current with industry standards and evaluation methods.

Technological Proficiency: Support was found for a positive effect on appraiser competency (r = 0.63). Using performance management software and data analytics, appraisers who are proficient with technology can reach more accurate, more informed appraisals.

Organizational Culture: The strongest correlation (r = 0.70) between organizational culture and appraiser competency was displayed in this. By creating an environment of trust, accountability, and continuous learning, a supportive and collaborative culture helps to create a better-performing appraiser.

Practical Implications

To strengthen appraiser competency, the organizations need to emphasize on the following:

• Ensure consistent and timely training to upgrade general appraiser skills and knowledge.

• Use innovative technologies to help in appraising the property accurately and faster.

• Foster an organizational climate where there is synergy to learn and share ideas.

• Hire fairly experienced appraisers to deliver the assessments needed and maintain the quality.

Limitations and Future Research

There are some limitations to this research since it is specifically concerned with engineering industrial units in Kolhapur whose generalization may not be relevant in all contexts. In the future, however, the research could be extended to cover other areas and industries or include studies that would demonstrate how appraiser competency changes over time. Furthermore, a more in-depth view of appraiser competency could be achieved by examining the impact of various external factors, for instance, trends in the industry or general economic conditions.

Conclusion

Correct appraisers in an organization are a pre-requisite in the effectiveness and fairness of performance evaluation within any organization especially in the engineering sector where precise and accurate appraisals are extremely vital to operational efficiency. In this study, engineering industrial units in Kolhapur district, Maharashtra were analyzed to determine the factors influencing these units' appraiser competency. The results indicate that educational qualifications, professional experience, training programs, technological familiarity, and organizational culture are all statistically significant when explaining appraiser competency. **Key conclusions from the study are as follows:**

1. While educational qualifications aid appraiser competency, this is done moderately, compared to other development factors like company culture and experience.
2. One of the most powerful predictors of competency was professional experience. Informed and accurate assessment is more apt to be made by experienced appraisers.
3. Maintaining high appealer competency is dependent upon such training programs because these programs enable the appraisers to keep up with continuous development in appraisal techniques and other industry standards.
4. Accurate performance evaluations are facilitated by the fact that appraisers with technology familiarity can make data-driven precise choices.
5. The biggest impact on appraiser competency was found to be organizational culture.

These findings indicate the complexity of appraiser competency and the necessity for organizational ownership of the development of the skills and capabilities of its appraisers.

Finally, we conclude that appraiser competency is a multivariate phenomenon involving education, experience, training, technology, and organizational culture. Improving these factors will prove to be highly advantageous to engineering industries in the Kolhapur district. Companies can strengthen their organizational performance by investing in the development of appraisers utilizing education, training, technology, and a supportive organizational culture to subsequently improve the quality of their performance evaluations and enhance decision-making, employee development, and organizational performance. These efforts will enable organizations to enhance their appraisal process and also develop a more capable and motivated workforce able to address the issues of an industrial environment marked by change.

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