

A STUDY ON DEVELOPING COMPETENCY MAPPING AMONG EMPLOYEES WORKING IN SHREE HARIE STEEL AND ALLOYS, ANNUR

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ABSTRACT

Competency is identifying an individual's strengths and weaknesses. A competency mapping model is an organizing framework that lists the competencies required for effective performance in a specific job, job family (ex.: group of related jobs), organization, function, or process. The actual mapping of employees can be a self-done exercise or done by others like superiors. The aim is to empower the individual to better comprehend him or herself and to bring up where vocation improvement endeavors should be coordinated. The present study concentrates with eight dimensions and perception of the managers / supervisors, labour and administrative staff members are gathered and measured with different parameters such as, adaptability, initiative, judgment, planning and organization, problem solving, leadership quality, productivity and use of technology. The researcher opines to conduct the study to find out the positives and negatives existing in the manufacturing sector and contribute necessary innovative suggestions/ recommendations to the management for the benefit of the employees and organizations as well. Descriptive research has been used to describe the characteristics of the variables. The research has conducted using primary data collected as 47 items through questionnaire and secondary data through journals, company website etc. The statistical tool utilized for the study is Reliability analysis, Regression, Factor analysis, Descriptive analysis, Friedman test to identify the overall perception of respondents and preference of respondents on different aspects towards competency mapping.

KEYWORDS: Competency, Perception, Dimensions, Management and Characteristics.

1. INTRODUCTION

The current globalization of economy necessitates innovative approaches in managing the work force. The fast changes happening in the demography and social systems thereof have given breathing space for various HR practices enhancing the employee productivity and growth. And one of the most commonly used HR practice is competency mapping for development of the employees. Identifying and development of the competencies in organization enable better performance management as well as reward and recognition systems leading to career and succession planning programmes. Also competency mapping is a strategic HR frame work for monitoring the performance.

Employee hard skill, knowledge and abilities are not sufficient to achieve the desired performance. What is additionally needed is employee's soft skills like attitude, mind-set values, belief and commitment. Thus, competency is the sum of knowledge, skills, attitude and personality of an individual as required performing current and future organizational roles. Competency also denotes motives, self-concept, traits and desired behavior.

Competency mapping identifies an individual's strengths and weaknesses. The aim is to enable the person to better understand him or herself and to point out where career development efforts need to be directed. Competency Mapping is a process to identify key competencies for an organization and/or a job and incorporating those competencies throughout the various processes (i.e. job evaluation, training, recruitment) of the organization.

A competency is defined as a behavior (i.e. communication, leadership) rather than a skill or ability. Competency mapping is the process of identification, evaluation of employees' competencies and organizational requirements and establishing perfect collaboration among them. Competency mapping also includes development and sustainability of competencies based on the changing organizational requirements. Competency mapping a process of identification of the competencies required to perform successfully a given job or role or a set of tasks at a given point of time. It consists of breaking a given role or job into its constituent tasks or activities and identifying the competencies (technical, managerial, behavioral, conceptual knowledge and attitude and skills, etc..) needed to perform the same successfully.

Competency mapping analyses individual's "SWOT"(Strengths, Weaknesses, and Opportunities & Threats) for better understanding and this helps to improve his career growth. This identifies the gap for improving knowledge to develop. Companies are vastly shifting their approach of having multi-skilled employees with knowledge of only one skill. The Competency models thus not only help the organizations in providing a —Blue print for the entire gamut of behavior that produce excellent performance but can also provide an important and useful tool to guide individual development.

A competency mapping model is an organizing framework that lists the competencies required for effective performance in a specific job, job family (Eg. group of related jobs), organization, function, or process. Individual competencies are organized into competency models to enable people in an organization or profession to understand, discuss, and apply the competencies to workforce performance.

1.1 COMPANY PROFILE

Shree Harie Steel & Alloys founded in the year 2005, Shree Harie Steel & Alloys is one of the leading corporations in market and known for its reliability. We are working as a partnership based firm. The head office is located at Coimbatore, Tamil Nadu. We are the manufacturers of Quality Carbon Steel, Low Alloy Steel, Stainless Steel and Duplex Steel castings. We cast the most intricate of shapes, both external and internal. As a result we minimize/eliminate many other operations such as machining, forging and welding. We are prominent manufacturer, engaged in offering a wide assortment of Metal Valve, Tubing Spool and many more. Offered products are precisely manufactured by using utmost quality raw material. With our sheer commitment and persistence towards attaining the quality steel castings, we continue to win the accolades of our customers and hence we have grown by leaps and bounds. We are capable of producing steel castings with weights ranging from 25 Kgs to 2500 Kgs. With 500 and odd experienced staffs working around the clock, you can be sure we will get the job done and get it done right.

1.2 SCOPE OF THE STUDY

The study is mainly conducted to know about the perception of competency mapping for the employees in the Shree Harie steel and alloy in Annur and also to ascertain the benefits to the organization using competency mapping. In this regard, the researcher opines to conduct the study to find out the positives and negatives existing in the manufacturing sector and contribute necessary innovative suggestions/ recommendations to the management for the benefit of the employees and organizations as well.

1.3 OBJECTIVES OF THE STUDY

- ✓ To analyses the competency mapping of the organization
- ✓ To measure the level of competency of the individual employees
- ✓ To evaluate the demographic factors and overall perception towards competency mapping among employees
- ✓ To contribute suggestion to improve the level of competency of employee.

1.4 NEED FOR THE STUDY

Competency mapping is excessively used in the organization to determine the crucial elements and activities. The basic reasons due to which the mapping of the competencies is done are as follows:

- ✓ Encouraging more open feedback — new insights. Clarity to the employees regarding the critical performance aspects.. Through competency mapping, the individual is preparing himself for the next set of responsibilities.
- ✓ With the help of the competency mapping the individual can alter the style of work and fill in the gaps in their performance. By overcoming the differences in the desired level and the actual status of performance the individual can feel the increase in the self-confidence and the motivation level.
- ✓ Helps the individual to determine the areas where the development is required and thus leads the individual to develop a realistic and objective self-development plan. It plays a crucial role in career planning of the individual in the organization, to both the employee and the employer.

1.5 LIMITATIONS OF THE STUDY

- ✓ Employees are busy in their work and so they are not sincerely co-operate for data collection.
- ✓ Due to linguistic issues, out of 90 population 47 samples was collected.
- ✓ Samples were collected only in Unit 1, due to lack of academic duration.

2. LITERATURE REVIEW

R.Yuvaraj (2011) “A Study On Competency Mapping – A Drive For Indian Industries”. Human resource management is a process of bringing people and organizations together so that the goals of each other are met. Nowadays it is not possible to show a good financial or operating report unless your personnel relations are in order. Over the years, highly skilled and knowledge based jobs are increasing while low skilled jobs are decreasing. This calls for future skill mapping through proper HRM initiatives. Indian organizations are also witnessing a change in systems, management cultures and philosophy due to the global alignment of Indian organizations. There is a need for multi skill development. Competency Mapping is a process of identifying key competencies for an organization, the jobs and functions within it. Competency mapping is important and is an essential activity. Perera, S., Pearson, J., Zhou, L. Ekundayo, D. (2012). A Study on “Developing a graduate competency mapping benchmark for quantity surveying competencies”. An investigation into the views of industry and academia on Quantity Surveying (QS) education revealed that there is a considerable gap in the expectation of graduate competency and the achievement of it. It identified the need for deeper investigation into the root causes of this gap between expectation and provision of QS competencies. This paper presents an in-depth analysis of Royal Institution of Chartered Surveyors (RICS) QS competencies and their mapping to four RICS accredited QS programme specifications taken as case studies. The mapping is detailed and carried out in a dual vector scale matrix encompassing the breadth and depth of achievement of competencies. Krishnaveni J (2013) “A Study on Mapping of Employees’ Competence”. This study aims to assess the competency of the employees of Meenakshi Mission Hospital and Research Centre, Madurai, India. It evaluates various aspects of employees’ competency such as ability to mutual relationship, communication, adaptability, leadership and overall task proficiency. This study may help the organization to identify the men of incompetence among the employees, and to take remedial measures to improve their performance. Ukey, D., & Krishnarao, L. (2014) have conducted a study on “The DNA of Competency Mapping: An Modern and Innovative Tool of HRM”. Competency mapping of late has become a buzzword in the industry and corporate world synonymous with professional management especially in the field of Human Resources. Competence- the capability of an employee to perform a job is a set of defined skills that affords a methodical approach for identification, appraisal and development of the behaviors in the individual employees. Competencies can be motives, self-belief, attitudes, values, characteristics, cognitive skills or any personal attribute that can be measured prudently to differentiate between superior and average performers. Competency mapping is a strategic HRM framework for monitoring the performance and development of human resource in organizations. If an organization has to sustain, grow and prosper, it is imperative to align the competencies of its employees’ with organization’s goals, mission and vision. S. Bhuvaneswary (2015) “A Study on Competency Mapping of Employees in Hero Best Motors with Special Reference to Malappuram District”. The current globalization of economy necessitates innovative approaches in managing the work force. The fast changes happening in the demography and social systems thereof have given breathing space for various HR practices enhancing the employee productivity and growth. And one of the most commonly used HR practice is competency mapping for development of the employees. Identifying and development of the competencies in organization enable better performance management as well as reward and recognition systems leading to career and succession planning programs. Also competency mapping is a strategic HR frame work for monitoring the performance. The aim of this study is to find out the competency mapping of the organization and level of competencies of employees in this organization. For the data collection, study used the questionnaire and survey. In this study sample size was 30 employees in the organization. For the analysis of data used percentage analysis, bar diagrams, pie diagrams in this study. This study found out that majority of the employees has competency skills.

3. RESEARCH METHODOLOGY

Research Methodology is a way to systematically solve the research problem. This would include the procedure and techniques used to perform the research as well as any of the terminology and explanation of how these methods will be applied effectively.

3.1 RESEARCH DESIGN

This study adopts a research method in view of the objectives and the focus of the study. The researcher used descriptive type of research. This research design deals with describing the characteristics of a particular individual or of groups. Descriptive research describes the state of affairs as it exists at present moment, in reality for everyone

to see/perceive. In this study the research is analysing the perception of Competency Mapping among employees working in Shree Harie Steel and Alloys at Annur. The study has focused on the following areas namely Adaptability, Initiative, Judgment, Problem Solving, Planning and Development, Leadership Quality, Productivity and Use of Technology and has also focused on the various factors that influence the competency.

3.2 DATA COLLECTION:-

3.2.1 PRIMARY DATA:

The major source of the data used to carry out the analysis is primary data. In order to fulfil the objectives set out, a sample study was undertaken by the use of well framed questionnaire and got them duly filled in. The first step in the collection of primary data is to identify the sample respondents working in Shree Harie Steel and Alloys at Annur.

3.2.2 SECONDARY DATA:

The sources of secondary data includes the publications and reports of textile industries in India, various other unpublished reports of non-governmental organizations, unpublished research reports, doctoral thesis of various institutions, Books, Journals, articles, etc.

3.2.3 SAMPLING METHOD

The sampling method used is simple random sampling.

3.2.4 SAMPLE SIZE

The sample size is 47, which include only the employees in the organization.

3.2.5 TOOLS FOR DATA COLLECTION

- ✓ Questionnaire
- ✓ Interview

3.2.6 TOOLS OF ANALYSIS

The primary data collected using the instrument – Questionnaire with 22 research questions and an open ended feedback questions from 47 respondents. The data are coded in to MS excel and transformed into the software package SPSS for statistical analysis. The following analysis was carried out.

- ✓ Reliability Test
- ✓ Regression
- ✓ Factor analysis
- ✓ Descriptive Analysis
- ✓ Friedman Test

4. DATA ANALYSIS AND INTERPRETATION:

4.1 RELIABILITY ANALYSIS

Reliability refers to the extent to which a scale produces consistent results, if the measurements are repeated a number of times. The analysis on reliability is called reliability analysis. Reliability analysis is determined by obtaining the proportion of systematic variation in a scale, which can be done by determining the association between the scores obtained from different administrations of the scale. Thus, if the association in reliability analysis is high, the scale yields consistent results and is therefore reliable.

Table 4.1 - Reliability Analysis

Cronbach's Alpha	N of Items
.882	27

INTERPRETATION

A reliability analysis was carried out on the perceived task values scale comprising 27 items. Cronbach's alpha showed the questionnaire to reach acceptable reliability, $\alpha = 0.7$ for high internal consistency. There is no such exception occurred. In this case, $\alpha = 0.882$, which shows the questionnaire is highly reliable.

REGRESSION ANALYSIS

Regression analysis is a form of predictive modelling technique which investigates the relationship between a dependent (target) and independent variable (s) (predictor). This technique is used for forecasting, time series

modelling and finding the causal effect relationship between the variables. Regression analysis is an important tool for modelling and analysing data. Regression analysis estimates the relationship between two or more variables.

REGRESSION ANALYSIS FOR AGE AND LEVEL OF PERCEPTION TOWARDS COMPETENCY MAPPING.

Hypothesis:

H0: There is no significant difference between the independent variables that are influencing the dependent variable “Various age categories of employees”.

H1: There is significant difference between the independent variables that are influencing the dependent variable “Various age categories of employees”.

Analysis:

Table 4.2 - Model Summary 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.817	0.667	0.362	0.877

Table 4.3 - Regression and error values 1

Model	Sum of squares	Df	Mean square	F	Sig.
1	Regression	22	1.679	2.184	0.033
	Residual	24	0.769		
	Total	46			

Dependent Variable: Age

Table 4.4 - Coefficients of Dependent variables 1

Variables	Coefficients	
	B	Std.Error
(Constant)	1.421	.866
Reacts to demands for help	.255	.173
Follows instructions	.222	.186
Volunteers readily.	-.504	.191
Uses Opportunities	-.448	.200
Asks for help when needed	.230	.204
Exhibits sound and accurate Judgments	.250	.207
Supports and explains reasoning for Decisions	.614	.267
Demonstrates accuracy and Thoroughness	-.237	.224
Applies feedback to improve Performance	-.267	.168
Monitors own work to ensure quality	-.159	.214
Prioritizes and plans work Activities	-.348	.205
Uses time efficiently	.293	.237
Sets goals and objective	.300	.168
Works in an organized manner	-.202	.160
Identifies problems in a timely Manner	.214	.235
Works well in group problem solving Situations	-.256	.226
Develops alternative solutions	-.280	.256
Demonstrates required skills	.460	.201
Adapts to new technologies	.366	.181
Meets productivity standards	-.485	.195
Work quickly	.326	.176
Achieves established goals	-.553	.187

Regression equation:

$$A = \alpha_1 + \alpha_1 RCT + \alpha_2 FI + \alpha_3 VLT + \alpha_4 OPP + \alpha_5 ASK + \alpha_6 ACC + \alpha_7 SPP + \alpha_8 DEMO + \alpha_9 FED + \alpha_{10} MNT + \alpha_{11} PRZ + \alpha_{12} EFF + \alpha_{13} SETS + \alpha_{14} WORK + \alpha_{15} PBM + \alpha_{16} WWL + \alpha_{17} ALT + \alpha_{18} SKILL + \alpha_{19} NEW + \alpha_{20} MEET + \alpha_{21} QUK + \alpha_{22} AVS + \varepsilon_1.$$

By substituting the value from table 4, the regression equation will be

$$A = 1.421 - 0.255 RCT + 0.222 FI - 0.504 VLT - 0.448 OPP + 0.230 ASK + 0.250 ACC + 0.614 SPP - 0.237 DEMO - 0.267 FED - 0.159 MNT - 0.348 PRZ + 0.293 EFF + 0.300 SETS - 0.202 WORK + 0.214 PBM - 0.256 WWL - 0.280 ALT + 0.460 SKILL + 0.366 NEW - 0.485 MEET + 0.326 QUK - 0.553 AVS + 0.667 \dots Eq. (1)$$

INTERPRETATION

The Significance (P Value) of the model is 0.00, which is less than the stipulated P-Value of 0.05. So this test is statistically significant. The independent variables are considered for the test are reacts to demands for help, follows instructions, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, meets productivity standards, work quickly, achieves established goals. By running that regression test the co-efficient of predicts and constant value are arrived as $\alpha_1 = 1.421$, $\alpha_2 = -0.255$, $\alpha_3 = -0.504$, $\alpha_4 = -0.448$, $\alpha_5 = 0.230$, $\alpha_6 = 0.250$, $\alpha_7 = 0.614$, $\alpha_8 = -0.237$, $\alpha_9 = -0.267$, $\alpha_{10} = -0.159$, $\alpha_{11} = -0.348$, $\alpha_{12} = 0.293$, $\alpha_{13} = 0.300$, $\alpha_{14} = -0.202$, $\alpha_{15} = 0.214$, $\alpha_{16} = -0.214$, $\alpha_{17} = -0.256$, $\alpha_{18} = 0.460$, $\alpha_{19} = 0.366$, $\alpha_{20} = -0.485$, $\alpha_{21} = 0.326$, $\alpha_{22} = -0.553$ and $\varepsilon_1 = 0.667$ (value of R square) with this the regression equation Eq. (1) is formed.

As the p-value is much less than 0.05, (i.e. 0.006), we reject the null hypothesis. Hence there is a significant relationship between the variables in the linear regression model of the data set faithful.

REGRESSION ANALYSIS FOR DESIGNATION AND LEVEL OF PERCEPTION TOWARDS COMPETENCY MAPPING

A regression analysis was conducted with dependent variable "Monthly income of various categories of employees" and by the independent variables consider were reacts to demands for help, follows instructions, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, meets productivity standards, work quickly, achieves established goals.

Hypothesis:

H0: There is no significant difference between the independent variables that are influencing the dependent variable "Designation of Various age categories of employees".

H1: There is significant difference between the independent variables that are influencing the dependent variable "Designation of various age categories of employees".

Analysis:**Table 4.5 - Model Summary 2**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817	.667	.362	.877

Table 4.6 - Regression and error values 2

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	36.948	22	1.679	2.184	.033
	Residual	18.456	24	.769		
	Total	55.404	46			

Dependent Variable: Designation

Table 4.7 - Coefficients of Dependent variables 2

Variables	Coefficients	
	B	Std.Error
(Constant)	1.421	.866
Reacts to demands for help	.255	.173
Follows instructions	.222	.186
Volunteers readily.	-.504	.191
Uses Opportunities	-.448	.200
Asks for help when needed	.230	.204
Exhibits sound and accurate Judgments	.250	.207
Supports and explains reasoning for Decisions	.614	.267
Demonstrates accuracy and Thoroughness	-.237	.224
Applies feedback to improve Performance	-.267	.168
Monitors own work to ensure quality	-.159	.214
Prioritizes and plans work Activities	-.348	.205
Uses time efficiently	.293	.237
Sets goals and objective	.300	.168
Works in an organized manner	-.202	.160
Identifies problems in a timely Manner	.214	.235
Works well in group problem solving Situations	-.256	.226
Develops alternative solutions	-.280	.256
Demonstrates required skills	.460	.201
Adapts to new technologies	.366	.181
Meets productivity standards	-.485	.195
Work quickly	.326	.176
Achieves established goals	-.553	.187

Regression equation:

$$\mathbf{D} = \alpha_1 + \alpha_2 \text{RCT} + \alpha_3 \text{FI} + \alpha_4 \text{VLT} + \alpha_5 \text{OPP} + \alpha_6 \text{ASK} + \alpha_7 \text{ACC} + \alpha_8 \text{SPP} + \alpha_9 \text{DEMO} + \alpha_{10} \text{FED} + \alpha_{11} \text{MNT} + \alpha_{12} \text{PRZ} + \alpha_{13} \text{EFF} + \alpha_{14} \text{SETS} + \alpha_{15} \text{WORK} + \alpha_{16} \text{PBM} + \alpha_{17} \text{WWL} + \alpha_{18} \text{ALT} + \alpha_{19} \text{SKILL} + \alpha_{20} \text{MEET} + \alpha_{21} \text{OUK} + \alpha_{22} \text{AVS} + \varepsilon_1.$$

By substituting the value from table 4, the regression equation will be

By substituting the value from table 4, the regression equation will be

$$\mathbf{D} = 1.421 + 0.255 \text{ RCT} + 0.222 \text{ FI} - 0.504 \text{ VLT} - 0.448 \text{ OPP} + 0.230 \text{ ASK} + 0.250 \text{ ACC} + 0.614 \text{ SPP} - 0.237 \text{ DEMO} - 0.267 \text{ FED} - 0.159 \text{ MNT} - 0.348 \text{ PRZ} + 0.293 \text{ EFF} + 0.300 \text{ SETS} - 0.202 \text{ WORK} + 0.214 \text{ PBM} - 0.214 \text{ WWL} - 0.256 \text{ ALT} + 0.460 \text{ SKILL} - 0.485 \text{ MEET} + 0.326 \text{ QUK} - 0.553 \text{ AVS} + 0.667 \dots \text{ Eq. (1)}$$

INTERPRETATION

The Significance (P Value) of the model is 0.00, which is less than the stipulated P-Value of 0.05. So this test is statistically significant. The independent variables are considered for the test are reacts to demands for help, follows instructions, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, meets productivity standards, work quickly, achieves established goals. By running that regression test the co-efficient of predicts and constant value are arrived as $\alpha_1 = 1.421$, $\alpha_1 = -0.255$, $\alpha_2 = 0.222$, $\alpha_3 = -0.504$, $\alpha_4 = -0.448$, $\alpha_5 = 0.230$, $\alpha_6 = 0.250$, $\alpha_7 = 0.614$, $\alpha_8 = -0.237$, $\alpha_9 = -0.267$, $\alpha_{10} = -0.159$, $\alpha_{11} = -0.348$, $\alpha_{12} = 0.293$, $\alpha_{13} = 0.300$, $\alpha_{14} = -0.202$, $\alpha_{15} = 0.214$, $\alpha_{16} = -0.256$, $\alpha_{17} = 0.460$, $\alpha_{18} = 0.366$, $\alpha_{19} = -0.485$, $\alpha_{20} = 0.326$, $\alpha_{21} = -0.553$ and $\epsilon = 0.667$ (value of R square) with this the regression equation Eq. (1) is formed.

As the p-value is much less than 0.05, (i.e. 0.006), we reject the null hypothesis. Hence there is a significant relationship between the variables in the linear regression model of the data set faithful.

REGRESSION FOR GENDER AND LEVEL OF PERCEPTION TOWARDS COMPETENCY MAPPING

A regression analysis was conducted with dependent variable "Gender" and by the independent variables consider were reacts to demands for help, follows instructions, meets attendance, adapts to change quickly, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, keeps technical skills up to date, meets productivity standards, work quickly.

Hypothesis:

H0: There is no significant difference between the independent variables that are influencing the dependent variable "Gender".

H1: There is significant difference between the independent variables that are influencing the dependent variable "Gender".

Analysis:

Table 4.8 - Model Summary 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.834	0.696	0.391	0.361

Table 4.9 - Regression and error values 3

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	6.839	23	.297	2.287	.026
	Residual	2.991	23	.130		
	Total	9.830	46			

Dependent Variable: Gender

Table 4.10 - Coefficients of Dependent variables 3

Variables	Coefficients	
	B	Std.Error
(Constant)	1.204	
Reacts to demands for help	.211	.084
Follows instructions	-.112	.091
Adapts to change quickly	-.138	.074
Meets attendance	.254	.113
Volunteers readily.	-.103	.086
Asks for help when needed	.180	.072
Makes timely decisions	.059	.097
Demonstrates accuracy and Thoroughness	-.318	.089
Applies feedback to improve Performance	-.203	.073
Monitors own work to ensure quality	-.072	.086
Prioritizes and plans work Activities	-.070	.085
Uses time efficiently	.105	.091
Sets goals and objective	-.153	.091
Works in an organized manner	-.061	.069
Identifies problems in a timely Manner	-.038	.105
Works well in group problem solving Situations	.237	.106
Develops alternative solutions	.051	.097
Demonstrates required skills	-.115	.090
Adapts to new technologies	-.058	.078
Keeps technical skills up to date	-.153	.094
Meets productivity standards	-.146	.094

Completes work in timely Manner	.233	.102
Work quickly	.046	.081

Regression equation:

$$\text{GEN} = \alpha_1 + \alpha_1 \text{RCT} + \alpha_2 \text{FI} + \alpha_3 \text{VLT} + \alpha_4 \text{OPP} + \alpha_5 \text{ASK} + \alpha_6 \text{ACC} + \alpha_7 \text{FED} + \alpha_8 \text{MNT} + \alpha_9 \text{PRZ} + \alpha_{10} \text{EFF} + \alpha_{11} \text{SETS} + \alpha_{12} \text{WORK} + \alpha_{13} \text{PBM} + \alpha_{14} \text{WWL} + \alpha_{15} \text{ALT} + \alpha_{16} \text{SKILL} + \alpha_{17} \text{NEW} + \alpha_{18} \text{DATE} + \alpha_{19} \text{MEET} + \alpha_{20} \text{COMP} + \alpha_{21} \text{QUK} + \epsilon_1.$$

By substituting the value from table 4, the regression equation will be

$$\text{GEN} = 1.204 - 0.211 \text{RCT} - 0.112 \text{FI} - 0.138 \text{MET} + 0.254 \text{APT} - 0.103 \text{VLT} - 0.180 \text{ASK} + 0.59 \text{TME} - 0.318 \text{ACC} - 0.267 \text{FED} - 0.203 \text{MNT} - 0.070 \text{PRZ} + 0.105 \text{EFF} - 0.153 \text{SETS} - 0.061 \text{WORK} - 0.038 \text{PBM} - 0.237 \text{WWL} - 0.051 \text{ALT} - 0.115 \text{SKILL} - 0.0586 \text{NEW} - 0.153 \text{DATE} - 0.146 \text{MEET} + 0.233 \text{COMP} + 0.046 \text{QUK} + 0.696 \dots \text{Eq. (1)}$$

INTERPRETATION

The Significance (P Value) of the model is 0.00, which is less than the stipulated P-Value of 0.05. So this test is statistically significant. The independent variables are considered for the test are reacts to demands for help, follows instructions, meets attendance, adapts to change quickly, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, keeps technical skills up to date, meets productivity standards, work quickly. By running that regression test the co-efficient of predicts and constant value are arrived as $\alpha_1 = 1.421$, $\alpha_1 = -0.255$, $\alpha_2 = 0.222$, $\alpha_3 = -0.504$, $\alpha_4 = -0.448$, $\alpha_5 = 0.230$, $\alpha_6 = 0.250$, $\alpha_7 = 0.614$, $\alpha_8 = -0.237$, $\alpha_9 = -0.267$, $\alpha_{10} = -0.159$, $\alpha_{11} = -0.348$, $\alpha_{12} = 0.293$, $\alpha_{13} = 0.300$, $\alpha_{14} = -0.202$, $\alpha_{15} = 0.214$, $\alpha_{16} = -0.214$, $\alpha_{17} = -0.256$, $\alpha_{18} = 0.460$, $\alpha_{19} = 0.366$, $\alpha_{20} = -0.485$, $\alpha_{21} = 0.326$, $\alpha_{22} = -0.553$ and $\epsilon_1 = 0.667$ (value of R square) with this the regression equation Eq. (1) is formed.

As the p-value is much less than 0.05, (i.e. 0.006), we reject the null hypothesis. Hence there is a significant relationship between the variables in the linear regression model of the data set faithful.

REGRESSION FOR EDUCATIONAL QUALIFICATION AND LEVEL OF PERCEPTION TOWARDS COMPETENCY MAPPING

A regression analysis was conducted with dependent variable "Qualification" and by the independent variables consider were follows instructions, meets attendance, adapts to change quickly, volunteers readily, exhibits sound and accurate judgments, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, monitors own work to ensure quality, uses time efficiently, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, meets productivity standards, achieves established goals.

Hypothesis:

H0: There is no significant difference between the independent variables that are influencing the dependent variable "Qualification".

H1: There is significant difference between the independent variables that are influencing the dependent variable "Qualification".

Analysis:**Table 4.11 - Model Summary 4**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.710	.504	.263	1.262

Table 4.12 - Regression and error values 4

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	50.103	15	3.340	2.097	.040
	Residual	49.387	31	1.593		
	Total	99.489	46			

Dependent Variable: Qualification

Table4.13 - Coefficients of Dependent Variables 4

Variables	Coefficients	
	B	Std. Error
(Constant)	2.808	1.159
Follows instructions	.648	.260
Meets attendance	.336	.226
Adapts to change quickly	.412	.262
Volunteers readily.	-.430	.241
Exhibits sound and accurate Judgments	-.321	.264
Supports and explains reasoning for Decisions	.585	.293
Demonstrates accuracy and Thoroughness	.814	.271
Monitors own work to ensure quality	-.596	.284
Uses time efficiently	-.315	.305
Identifies problems in a timely Manner	-1.224	.286
Works well in group problem solving Situations	.288	.297
Develops alternative solutions	-.446	.348
Demonstrates required skills	.178	.229
Meets productivity standards	-.298	.231
Achieves established goals	.351	.221

Regression equation:

$$\text{QUA} = \alpha_0 + \alpha_1 \text{FI} + \alpha_2 \text{MEET} + \alpha_3 \text{APT} + \alpha_4 \text{VLT} + \alpha_5 \text{ACC} + \alpha_6 \text{SPP} + \alpha_7 \text{DEMO} + \alpha_8 \text{MNT} + \alpha_9 \text{EFF} + \alpha_{10} \text{PBM} + \alpha_{11} \text{WWL} + \alpha_{12} \text{ALT} + \alpha_{13} \text{SKILL} + \alpha_{14} \text{MEET} + \alpha_{15} \text{AVS} + \varepsilon_1$$

By substituting the value from table 4, the regression equation will be

$$\text{QUA} = 2.808 + 0.648 \text{FI} + 0.336 \text{ATT} + 0.412 \text{APT} - 0.430 \text{VLT} - 0.321 \text{ACC} + 0.585 \text{SPP} + 0.814 \text{DEMO} - 0.596 \text{MNT} - 0.315 \text{EFF} - 0.153 \text{SETS} - 1.224 \text{PBM} + 0.288 \text{WWL} - 0.446 \text{ALT} + 0.178 \text{SKILL} - 0.298 \text{MEET} + 0.351 \text{AVS} + 0.504 \dots \text{Eq. (1)}$$

INTERPRETATION

The Significance (P Value) of the model is 0.00, which is less than the stipulated P-Value of 0.05. So this test is statistically significant. The independent variables are considered for the test are Follows instructions, Meets attendance, Volunteers readily, Exhibits sound and accurate Judgments, Supports and explains reasoning for Decisions, Demonstrates accuracy and Thoroughness, Monitors own work to ensure quality, Uses time efficiently, Identifies problems in a timely Manner, Works well in group problem solving Situations, Develops alternative solutions, Demonstrates required skills, Meets productivity standards, Achieves of goals. By running that regression test the co-efficient of predicts and constant value are arrived as $\alpha_0 = 2.808$, $\alpha_1 = 0.648$, $\alpha_2 = 0.336$, $\alpha_3 = 0.412$, $\alpha_4 = -0.430$, $\alpha_5 = -0.321$, $\alpha_6 = 0.585$, $\alpha_7 = 0.814$, $\alpha_8 = -0.596$, $\alpha_9 = -0.315$, $\alpha_{10} = -0.153$, $\alpha_{11} = -1.224$, $\alpha_{12} = 0.288$, $\alpha_{13} = -0.446$, $\alpha_{14} = 0.178$, $\alpha_{15} = 0.298$, $\alpha_{16} = 0.351$ and $\varepsilon_1 = 0.504$.

(value of R square) with this the regression equation Eq. (1) is formed.

As the p-value is much less than 0.05, (i.e. 0.006), we reject the null hypothesis. Hence there is a significant relationship between the variables in the linear regression model of the data set faithful.

REGRESSION ANALYSIS FOR “MONTHLY INCOME AND LEVEL OF PERCEPTION TOWARDS COMPETENCY MAPPING

A regression analysis was conducted with dependent variable „Monthly income of various categories of employees „and by the independent variables consider were reacts to demands for help, follows instructions, meets attendance, adapts to change quickly, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, keeps technical skills up to date, meets productivity standards, completes work in timely manner, work quickly, achieves established goals.

Hypothesis:

H0: There is no significant difference between the independent variables that are influencing the dependent variable "Monthly income of various categories of employees".

H1: There is significant difference between the independent variables that are influencing the dependent variable "Monthly income of various categories of employees".

Analysis:**Table 4.14 - Model Summary 5**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.879	.773	.452	.672

Table 4.15 - Regression and error values 5

Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27	1.086	2.403	.026
	Residual	19	.452		
	Total	46			

Dependent Variable: Monthly income

Table 4.16 - Coefficients of Dependent variables 5

Variables	Coefficients	
	B	Std. Error
(Constant)	.632	.713
Reacts to demands for help	-.400	.176
Follows instructions	.444	.205
Meets attendance	-.179	.152
Adapts to change quickly	-.633	.241
Volunteers readily.	.132	.171
Uses Opportunities	-.298	.172
Asks for help when needed	.303	.188
Exhibits sound and accurate Judgments	.165	.187
Makes timely decisions	-.597	.214
Supports and explains reasoning for Decisions	.452	.215
Demonstrates accuracy and Thoroughness	.119	.183
Applies feedback to improve Performance	-.111	.148
Monitors own work to ensure quality	.157	.182
Prioritizes and plans work Activities	-.418	.172
Uses time efficiently	.447	.197
Sets goals and objective	.528	.178
Works in an organized manner	.256	.166
Identifies problems in a timely Manner	.457	.248
Works well in group problem solving Situations	-.958	.285
Develops alternative solutions	-.136	.213
Demonstrates required skills	.140	.179
Adapts to new technologies	.483	.178
Keeps technical skills up to date	-.014	.200
Meets productivity standards	-.036	.189
Completes work in timely Manner	-.288	.232
Work quickly	.178	.166
Achieves established goals	-.265	.221

Regression equation:

$$\text{MI} = \alpha_1 + \alpha_1 \text{RCT} + \alpha_2 \text{FI} + \alpha_3 \text{ATT} + \alpha_4 \text{APT} + \alpha_5 \text{VLT} + \alpha_6 \text{OPP} + \alpha_7 \text{ASK} + \alpha_8 \text{ACC} + \alpha_9 \text{TME} + \alpha_{10} \text{SPP} + \alpha_{11} \text{DEMO} + \alpha_{12} \text{FED} + \alpha_{13} \text{MNT} + \alpha_{14} \text{PRZ} + \alpha_{15} \text{EFF} + \alpha_{16} \text{SETS} + \alpha_{17} \text{WORK} + \alpha_{18} \text{PBM} + \alpha_{19} \text{WWL} + \alpha_{20} \text{ALT} + \alpha_{21} \text{SKILL} + \alpha_{22} \text{NEW} + \alpha_{23} \text{DATE} + \alpha_{24} \text{MEET} + \alpha_{25} \text{COMP} + \alpha_{26} \text{QUK} + \alpha_{27} \text{AVS} + \epsilon_1.$$

By substituting the value from table 4, the regression equation will be

$$\text{MI} = 0.632 - 0.400 \text{RCT} + 0.444 \text{FI} - 0.179 \text{MA} - 0.633 \text{APT} + 0.132 \text{VLT} - 0.298 \text{OPP} + 0.303 \text{ASK} + 0.165 \text{ACC} - 0.597 \text{TME} + 0.452 \text{SPP} + 0.119 \text{DEMO} - 0.111 \text{FED} + 0.157 \text{MNT} - 0.418 \text{PRZ} + 0.447 \text{EFF} + 0.528 \text{SETS} + 0.256 \text{WORK} + 0.457 \text{PBM} - 0.958 \text{WWL} - 0.136 \text{ALT} + 0.140 \text{SKILL} + 0.483 \text{NEW} - 0.014 \text{DATE} - 0.036 \text{MEET} - 0.288 \text{COMP} + 0.178 \text{QUK} - 0.265 \text{AVS} + 0.773. \dots \text{Eq. (1)}$$

INTERPRETATION

The Significance (P Value) of the model is 0.00, which is less than the stipulated P-Value of 0.05. So this test is statistically significant. The independent variables are considered for the test are reacts to demands for help, follows instructions, meets attendance, adapts to change quickly, volunteers readily, uses opportunities, asks for help when needed, exhibits sound and accurate judgments, makes timely decisions, supports and explains reasoning for decisions, demonstrates accuracy and thoroughness, applies feedback to improve performance, monitors own work to ensure quality, prioritizes and plans work activities, uses time efficiently, sets goals and objective, works in an organized manner, identifies problems in a timely manner, works well in group problem solving situations, develops alternative solutions, demonstrates required skills, adapts to new technologies, keeps technical skills up to date, meets productivity standards, completes work in timely manner, work quickly, achieves established goals. By running that regression test the co-efficient of predicts and constant value are arrived as $\alpha_1 = 0.632$, $\alpha_2 = -0.400$, $\alpha_3 = 0.444$, $\alpha_4 = -0.179$, $\alpha_5 = 0.132$, $\alpha_6 = 0 - 0.298$, $\alpha_7 = 0.303$, $\alpha_8 = 0.165$, $\alpha_9 = -0.597$, $\alpha_{10} = 0.452$, $\alpha_{11} = 0.119$, $\alpha_{12} = -0.111$, $\alpha_{13} = 0.157$, $\alpha_{14} = -0.418$, $\alpha_{15} = 0.447$, $\alpha_{16} = 0.528$, $\alpha_{17} = 0.256$, $\alpha_{18} = 0.457$, $\alpha_{19} = 0.958$, $\alpha_{20} = -0.136$, $\alpha_{21} = 0.140$, $\alpha_{22} = 0.483$, $\alpha_{23} = -0.014$, $\alpha_{24} = -0.036$, $\alpha_{25} = -0.288$, $\alpha_{26} = 0.178$, $\alpha_{27} = -0.265$ and $\epsilon_1 = 0.773$ (value of R square) with this the regression equation Eq. (1) is formed.

As the p-value is much less than 0.05, (i.e. 0.006), we reject the null hypothesis. Hence there is a significant relationship between the variables in the linear regression model of the data set faithful.

FACTOR ANALYSIS

Factor analysis is a useful tool for investigating variable relationships for complex concepts such as socioeconomic status, dietary patterns, or psychological scales. It allows researchers to investigate concepts that are not easily measured directly by collapsing a large number of variables into a few interpretable underlying factors. The key concept of factor analysis is that multiple observed variables have similar patterns of responses because they are all associated with a latent (i.e. not directly measured) variable. For example, people may respond similarly to questions about income, education, and occupation, which are all associated with the latent variable socioeconomic status. In every factor analysis, there are the same numbers of factors as there are variables. Each factor captures a certain amount of the overall variance in the observed variables, and the factors are always listed in order of how much variation they explain. The Eigen value is a measure of how much of the variance of the observed variables a factor explains. Any factor with an Eigen value ≥ 1 explains more variance than a single observed variable. So if the factor for socioeconomic status had an Eigen value of 2.3 it would explain as much variance as 2.3 of the three variables. This factor, which captures most of the variance in those three variables, could then be used in other analyses. The factors that explain the least amount of variance are generally discarded. Deciding how many factors are useful to retain will be the subject of another post.

Table 4.17 - KMO AND Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.515
Bartlett's Test of Sphericity	Approx.chi-Square	765.386
	Df	351
	Sig.	.000

Table 4.18 - Communalities

Variables	Initial	Extraction
Reacts to demands for help	1.000	.645
Follows instructions	1.000	.663
Meets attendance	1.000	.595
Adapts to change quickly	1.000	.649
Volunteers readily.	1.000	.712
Uses Opportunities	1.000	.425
Asks for help when needed	1.000	.629

Exhibits sound and accurate Judgments	1.000	.734
Makes timely decisions	1.000	.720
Supports and explains reasoning for Decisions	1.000	.700
Demonstrates accuracy and Thoroughness	1.000	.642
Monitors own work to ensure quality	1.000	.734
Prioritizes and plans work Activities	1.000	.608
Uses time efficiently	1.000	.425
Sets goals and objective	1.000	.439
Works in an organized manner	1.000	.651
Identifies problems in a timely Manner	1.000	.687
Works well in group problem solving Situations	1.000	.496
Develops alternative solutions	1.000	.823
Demonstrates required skills	1.000	.692
Adapts to new technologies	1.000	.524
Keeps technical skills up to date	1.000	.604
Meets productivity standards	1.000	.460
Completes work in timely Manner	1.000	.565
Work quickly	1.000	.546
Achieves established goals	1.000	.564

Extraction Method: Principal Component Analysis

Table 4.19 - Component matrix

Variables	Component				
	1	2	3	4	5
Reacts to demands for help	.662	-.338	-.135	-.264	.064
Follows instructions	.659	-.306	.188	.011	.315
Meets attendance	.296	.546	.048	-.420	-.177
Adapts to change quickly	.521	-.133	.365	.246	-.408
Volunteers readily.	.497	-.508	-.010	.174	.421
Uses Opportunities	.461	.177	.123	-.330	-.239
Asks for help when needed	.595	.169	-.496	-.020	.016
Exhibits sound and accurate Judgments	.489	-.490	.005	.501	.068
Makes timely decisions	.668	-.367	.011	-.369	-.051
Supports and explains reasoning for Decisions	.513	-.441	.427	-.209	-.127
Demonstrates accuracy and Thoroughness	.528	.134	-.481	.239	-.236
Applies feedback to improve Performance	.282	.367	.288	.004	.074
Monitors own work to ensure quality	.451	-.282	.270	.257	-.559
Prioritizes and plans work Activities	.407	.475	-.106	.319	.322
Uses time efficiently	.345	.301	-.150	.310	-.312
Sets goals and objective	.302	.162	-.064	-.563	-.023
Works in an organized manner	.380	-.070	.411	-.040	.576
Identifies problems in a timely Manner	.444	.665	.153	-.138	.070
Works well in group problem solving Situations	.302	.529	.164	.269	.163
Develops alternative solutions	.625	-.594	-.239	-.144	-.039
Demonstrates required skills	.397	.103	-.655	.203	.231
Adapts to new technologies	.455	.394	.329	.155	-.171
Keeps technical skills up to date	.594	.129	.294	.380	.056
Meets productivity standards	.584	.066	-.219	-.257	.000
Completes work in timely Manner	.492	.336	.168	-.183	.385
Work quickly	.582	.413	-.098	.070	-.152
Achieves established goals	.691	-.110	-.209	-.073	-.159

Extraction Method: Principal Component Analysis

Table 4.20 - Rotated Component Matrix

Variables	Component				
	1	2	3	4	5
Reacts to demands for help	.662	-.073	.272	.336	.117
Follows instructions	.760	.248	.061	.042	.136
Meets attendance	-.188	.331	.099	.662	.032
Adapts to change quickly	.231	.184	.039	.034	.748
Volunteers readily.	.795	.047	.144	-.238	.005
Uses Opportunities	.113	.177	.082	.552	.263
Asks for help when needed	.218	.146	.700	.263	-.025
Exhibits sound and accurate Judgments	.585	.021	.266	-.423	.377
Makes timely decisions	.658	-.100	.136	.450	.235
Supports and explains reasoning for Decisions	.602	-.024	-.232	.259	.465
Demonstrates accuracy and Thoroughness	.058	.080	.756	.074	.236
Applies feedback to improve Performance	.009	.510	-.046	.177	.099
Monitors own work to ensure quality	.201	-.037	.080	-.001	.828
Prioritizes and plans work Activities	.056	.645	.409	-.085	-.118
Uses time efficiently	-.166	.250	.461	.020	.350
Sets goals and objective	.128	.042	.065	.637	-.105
Works in an organized manner	.588	.471	-.253	-.011	-.134
Identifies problems in a timely Manner	-.078	.681	.152	.440	.011
Works well in group problem solving situations	-.080	.681	.156	-.020	.046
Develops alternative solutions	.728	-.311	.341	.174	.224
Demonstrates required skills	.195	.096	.763	-.070	-.242
Adapts to new technologies	-.024	.564	.078	.178	.409
Keeps technical skills up to date	.302	.568	.159	-.104	.392
Meets productivity standards	.323	.115	.388	.437	.035
Completes work in timely Manner	.307	.584	.052	.317	-.161
Work Quickly	.015	.435	.461	.295	.240
Achieves established goals	.408	.034	.468	.306	.288

Extraction Method: Principal Component Analysis

Rotation Method : Varimax with Kaiser Normalization

Table 4.21 - Factored Components

Variables	Component				
	1	2	3	4	5
Volunteers readily	0.795				
Follows instructions	0.76				
Develops alternative solutions	0.728				
Reacts to demands for help	0.662				
Makes timely decisions	0.658				
Supports and explains reasoning for decisions	0.602				
Works in an organized manner	0.588				
Exhibits sound and accurate judgments	0.585				
Uses opportunities		0.681			
Asks for help when needed		0.645			
Works well in group problem solving situations		0.584			
Adapts to new technologies		0.568			
Applies feedback to improve Performance		0.564			
Meets productivity standards			0.763		
Monitors own work to ensure quality			0.756		
Keeps technical skills up to date			0.7		
Uses time efficiently				0.637	
Achieves established goals				0.552	
Demonstrates accuracy and Thoroughness					0.828
Demonstrates required skills					0.748

INTERPRETATION

Kaiser-Meyer-Olkin Measure of Sampling Adequacy indicates 0.515, which infers the test has very poor sample adequacy. The Descriptive Statistics for 33 research questions Means varies from 2.28 to 3.06 and Standard Deviation varies from 0.845 to 1.300. The 27 variables are classified into three factors such as:

Factor 1 consists of the variables

- Volunteers readily
- Follows instructions
- Develops alternative solutions
- Reacts to demands for help
- Makes timely decisions
- Works in an organized manner
- Exhibits sound and accurate judgments

Factor 2 consists of the variables

- Uses opportunities
- Asks for help when needed
- Adapts to new technologies
- Applies feedback to improve Performance

Factor 3 consists of the variables

- Meets productivity standards
- Monitors own work to ensure quality
- Keeps technical skills up to date

Factor 4 consists of the variables

- Uses time efficiently
- Achieves established goals

Factor 5 consists of the variables

- Demonstrates accuracy and Thoroughness
- Demonstrates required skills

FRIEDMAN TEST:

The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is used to test for differences between groups when the dependent variable being measured is ordinal. The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is used to test for differences between groups when the dependent variable being measured is ordinal. It can also be used for continuous data that has violated the assumptions necessary to run the one-way ANOVA with repeated measures (e.g., data that has marked deviations from normality). When Friedman test is chosen, part of the process involves checking to make sure that the data to analyse can actually be analysed passes four assumptions: One group that is measured on three or more different occasions, Group is a random sample from the population; dependent variable should be measured at the ordinal or continuous level. Examples of ordinal variables include Likert scales and samples do not need to be normally distributed.

Hypothesis:

H₀: There is no significant difference between the satisfaction level of various categories of employees and the various parameters used for the competency mapping.

H₁: There is significant difference between the satisfaction level of various categories of employees and the various parameters used for the competency mapping.

Table 4.22 - Friedman Test Statistics

N	47
Chi-Square	210.369
Df	29
Asymp. Sig.	.000

Table 4.23 - Friedman Rank

Element	Mean Rank
Age	7.21
Income	6.17
Experience	7.66

Reacts to demands for help	13.83
Follows instructions	17.40
Meets attendance	17.48
Adapts to change quickly	16.23
Volunteers readily.	16.07
Uses Opportunities	15.32
Asks for help when needed	16.83
Exhibits sound and accurate Judgments	15.40
Makes timely decisions	15.34
Supports and explains reasoning for Decisions	17.70
Demonstrates accuracy and Thoroughness	14.47
Applies feedback to improve Performance	14.23
Monitors own work to ensure quality	17.48
Prioritizes and plans work Activities	17.17
Uses time efficiently	19.49
Sets goals and objective	17.65
Works in an organized manner	16.86
Identifies problems in a timely Manner	17.49
Works well in group problem solving Situations	17.73
Develops alternative solutions	15.98
Demonstrates required skills	15.82
Adapts to new technologies	17.15
Keeps technical skills up to date	15.68
Meets productivity standards	16.78
Completes work in timely Manner	17.85
Work quickly	15.94
Achieves established goals	14.57

INTERPRETATION:

The table 5.21 depicts the Friedman Test analysis report with the variables considered for the test as shown in the note above. The Friedman test, which evaluated differences in medians among the variables, is significant χ^2 (29, N= 47) = 210.369, $p < .05$. To determine whether any of the differences between the medians are statistically significant, compare the p-value to significance level to assess the null hypothesis. The null hypothesis states that the population medians are all equal. Usually, a significance level (Asymp. Sig., denoted as α or alpha) of 0.05 works well. A significance level of 0.05 indicates a 5% risk of concluding that a difference exists when there is no actual difference. P-value $\leq \alpha$: The differences between some of the medians are statistically significant As the p-value (0.000) is less than or equal to the significance level (0.05), the null hypothesis is rejected and conclude that not all the variables' medians are equal.

FINDINGS

Competency is a bunch of related learning, abilities, and states of mind that influences a noteworthy an aspect of one's responsibilities (a part of duty), that connected with execution at work, that can be estimated against all around acknowledged measures, and that can be enhanced by means of preparing and advancement. The perception towards Competency mapping of employees' working in Shree Harie steel and alloys in Coimbatore was done taking 8 dimensions namely, Adaptability, Initiative, Judgement, Planning and Organization, Problem Solving, Leadership Quality, Productivity and Use of Technology. The results are summarized as below.

DEMOGRAPHIC VARIABLE

Demographics are the quantifiable measurements of a given example. Demographics are likewise used to distinguish the investigation of quantifiable subsets inside a given example which describe that example at a particular point in time. Commonly examined demographics include gender, age, qualification, designation, marital status, income. The study incorporated all the important demographic variables that can influence the subject and in turn the perceptions towards competency mapping were analysed.

- Majority of the gender respondent is 70.2% of male.
- Majority of the age respondent is 42.6% of between 18 – 25 years
- Majority of the designation respondent is 31.9% of engineers.
- Majority of the Qualification respondent is 32.2% of others.
- Majority of the marital status respondent is 63.8% of married.
- Majority of the income respondent is 44.7% of between 10K-15K.

REGRESSION

It is evident that all the dimensions are significantly contributing towards achieving the high level of competence, however, it is understood that the variables such as initiative, judgement, leadership, planning and organization, use of technology was found to have highly perceived by the respondents revealing that the high level of competence in the manufacturing sectors is achieved based on these factors.

FACTOR ANALYSIS

From the KMO and Bartlett's test, measured variables based on factors contributing towards competency mapping and employees perception towards competency mapping is found to have best fit and also having positive relationship with >0.5 level. The analysis of the model, from the view point of the employees, suggests that all the measured variables significantly associated and have positive impact on overall perception among employees on competency mapping of Shree Harie Steel and Alloys in Annur.

FRIEDMAN TEST

Because the p-value for the obtained data is less than the significance level of 0.05, the analyst rejects the null hypothesis and concludes that at least one of those various perceptions has a different effect. Also, the median responses for the variables of Adaptability, planning and organization, problem solving are close to the overall median, but the median response for planning and organization(uses time efficiently) is substantially higher. These results indicate that planning and organization might be more effective than the other factors.

SUGGESTION

It is suggested that the demographics of the respondents have significant influence, which have similarities in the present study and the referred studies with regards to the level of performances that needed to be addressed immediately by the management by way of improving Adaptability, Problem solving and Productivity.

CONCLUSION

The success of every organization depends on its employees. Therefore the most important thing is their satisfaction and this can be achieved only if there exists a proper quality of HRD. The researcher had undertaken the study the perception of employees towards competency mapping in the Shree Harie steel and alloys in Annur. This study will provide information about the views and thoughts that the employees possess about competency mapping and helps in giving special attention to those areas were the needs have not been fulfilled which in turn will help in the overall development of the organization. The study analysed taking the all categories of employees, their needs and job roles has been found challenging every day. In order to improve their level of competence their leadership quality towards planning to achieve the productivity to maintain the required competence levels has been tested to find out the area needed to be strengthened with all the factors such as Adaptability, Initiative, Judgement, Problem Solving, Planning and Organization, Leadership Quality, Productivity and Use of Technology. Initiative, Judgement, Planning and Organization and Problem Solving ability based on the perception of the respondents have influenced significantly. All these aspects are analysed and the survey discovers the weak areas such as Adaptability, Problem solving and Productivity that needs to be strengthened according to the situation existing in Shree Harie steel and alloys in Annur. The study concludes that if the suggestions are taken into consideration by the management of the Shree Harie Steel And Alloys in Annur will definitely help in achieving greater heights in the years to come.

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