



“EFFECT OF THE HRD PROCESS ON THE PERFORMANCE OF THE EMPLOYEE PRODUCTIVITY IN CHEMICAL INDUSTRIES”

Guide:-Dr. Rinki

Assistant Professor

Faculty of Management Studies

Fareed Ahmed Ansari

Student, PIMR

Gracy Srivastava

Student, PIMR

ABSTRACT

Human Resource Development is process of set of activities, continuous and planned way to develop the skill and knowledge of the individual or group to achieve the organizational goals. Term Human Resource Development is Human Resource Management functions to prepare staff and organization based on activities (Organizational Development, Career Development, Training & Development). The project is show the way the Human Resource Development in organization where staff is relevant in the achievement of policies, goal, and objective. The analysis of HRD that its main objective to knowledge transference to HRD and activities reveals that environmental, social, cultural which influence the organization need that is focus on employee development. The objective of the study refer to the extent at which effective Human Resource Development can increase the productivity and decrease the poor performance in organization. To ascertain of human resource development have any significant impact on organizational profitability.

Key Word:-Human Resource, Training & Development, Performance, Productivity, Management & Motivation, Skill & Knowledge

INTRODUCTION

HISTORY AND EVOLUTION

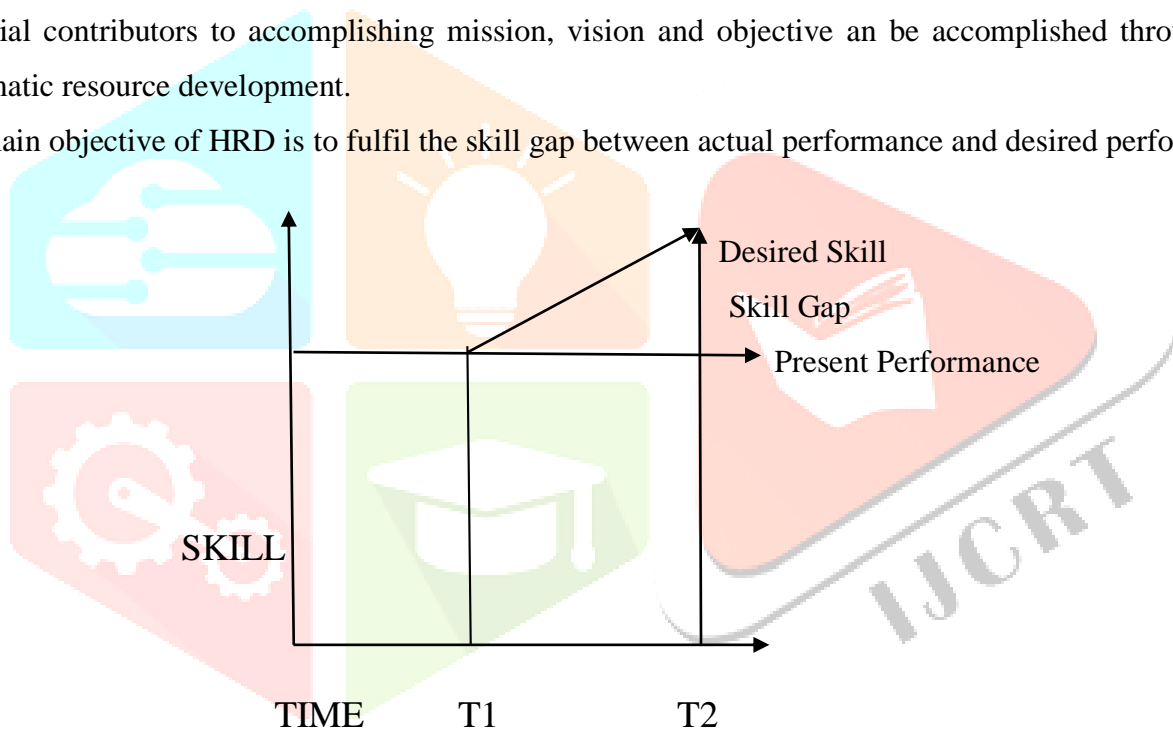
HRD concept is given by Leonard Nadler in 1969 in a Conference in US. In India HRD is introduced by T.V. Rao professor of IIM Ahmadabad 1975. Larsen & Toubro a Engineering Company in India had appointed two researcher from IIM Ahmadabad to doing a research on the performance appraisal system and effect. Two researcher (Pareek & Rao) suggested that performance appraisal, potential appraisal, training & development, feedback, career development is the integrated system which is call the human resource development.

DEFINITION OF HUMAN RESOURCE DEVELOPMENT

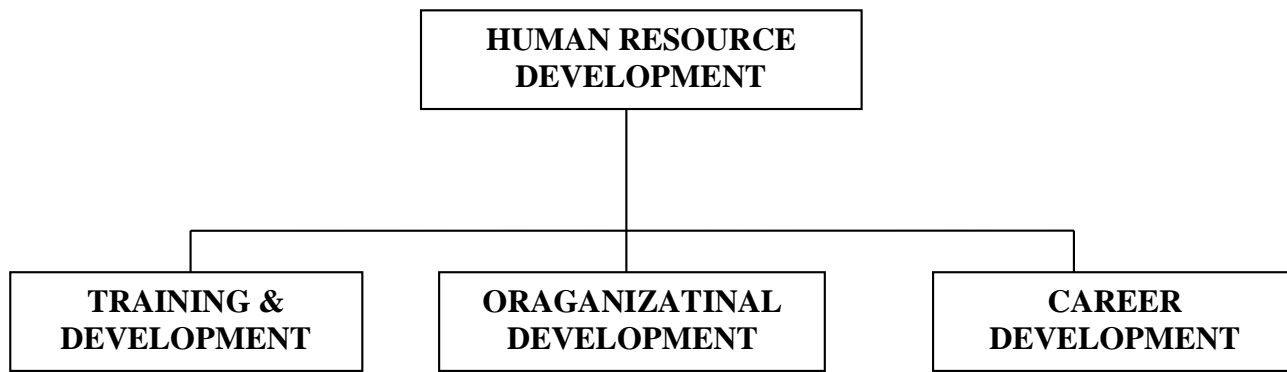
According to L. Nadler, **“Human Resource Development as those learning experience which are organized, for a specific time and designed to bring about the possibility of behavioural change.”**

The improvement of the abilities and energies of the people who are already present in an organization as potential contributors to accomplishing mission, vision and objective can be accomplished through asset of systematic resource development.

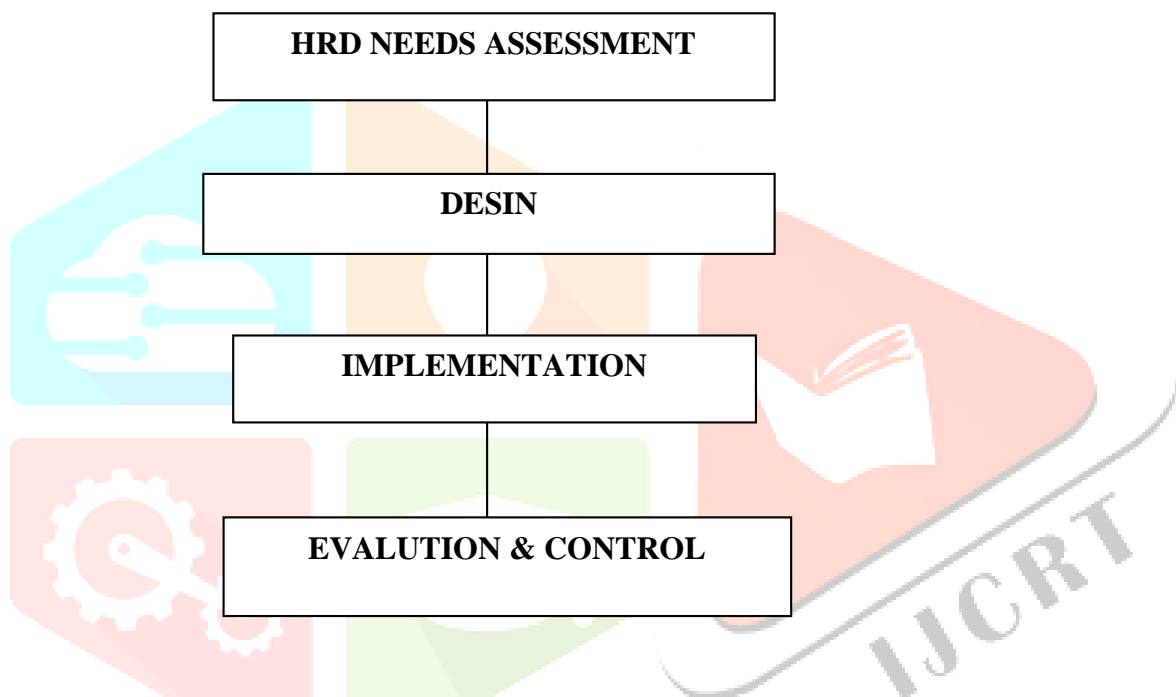
The main objective of HRD is to fulfil the skill gap between actual performance and desired performance.



FUNCTION OF HUMAN RESOURCE DEVELOPMENT



HUMAN RESOURCRCE DEVELOPMENT PROCESS



CHALLENGES TO PRODUCTIVITY IN CHEMICAL INDUSTRY

ENSURING WORKER SAFETY

The Chemical Industry is using many hazardous elements and handling this is required so the employee is alert all time.

- Guarantees a flawless time table by automatically comparing assignments to all exhaustion rules.
- Enables proactive risk mitigation for fatigue by making suggestion for fixing rules breaches.
- Scheduling and safety training improvement is most important.

UTILIZATION OF LOBOUR

Finding back fills for unexpected shift opening is a difficult challenge that plant managers and supervision face everyday chemical facilities need specialized skills labour that sources cannot readily provide.

- Increase the efficiency of shift backfill by automatically giving schedules a list of qualified available workers.
- By automatically indentifying underutilised workers who should be reassigned and moved about labour allocation in optimised.

LOBOUR COST MANAGEMENT

Chemical plants are among the top 5 manufacturing segments with highest percentage increase in unit labour costs. Many operations leaders are seeking for proactive measures to reduce unnecessary work hour and overtimes cost though personnel scheduling.

- Proactively discover over staffed areas and transfer employees there from understaffed areas.
- Provides into sectors that are both overstaffed and understaffed depending on sudden changes in the labour demand.

Assists plants manager is identifying and using all straight time worker us backfill before bring is overtime workers.

LITERATURE REVIEW

Kwak, McCarthy and Parker (2007):- HRD is the focus of HRM and focus on achieving quantity and quality of skilled workforce that an organization requires in order to achieve its mandate. The main aim of HRD as a critical function of HRM is to foster 10 competitiveness among employees and renew existing potential for improved performance in the whole organization. The failure to embrace HRD endangers the organization's future success.

Uddin, Md. Bashir (2016) :- Higher productivity, cost cutting, more earnings, a better reputation, and more satisfied customers and stakeholders are all considered as organisational goals that are impacted by HRD. Organisational parameters HRD initiatives as such have little effect on cost-savings, quality- or quantity-related improvements, or enterprise benefits. The use of learning in the workplace is ultimately what can lower costs, raise standards, and other things. HRD is therefore defined in the organisational context as a process that aids employees in improving their functional capabilities for their current and future roles, developing their general capabilities, utilising their inner potential for both personal and organisational growth, and creating an organisational culture that supports positive relationships between superiors and subordinates, teamwork, motivation, quality, and a sense of belonging.

Al-qout(2017):-The final result of employee performance is greatly influenced by human resource development. Its components are all designed to considerably increase employees' skills, therefore improving efficiency. Employee performance is impacted by HRD in a variety of ways, including improved performance and improved interpersonal relationships. Employee training and performance, according to numerous researchers that have examined the empirical effects of HR employee performance (Elnaga& Imran, 2013). According to research conducted by Asfaw et al.(2015), there is a considerable positive correlation between HRD and employee performance.

Otoo& Mishra (2018):- Conducted a study to ascertain the impact of HRD practises on employee performance in Ghana for small and medium -sized businesses. The500 employees from the chosen SMEs comprised the sample. Data was gathered by surveys, and structural equation modelling was used for the analysis. The study's findings suggested that specific method human resource development have a favourable impact on worker productivity. The fact that the research was done in small and medium-sized businesses, however, was a

drawback. Additionally, because the analysis was based on cross-sectional data, it was unable to extrapolate the results to other economic sectors.

Frank and Mridula (2018):- Did additional research on how HRD affects employees' performance at work. The goal of the study was to look how employee competencies mediated the relationship between HRD procedures and output. The findings demonstrated that some HRD methods had an effect staff competences, which in turn had an impact on performance. The study also showed that the link between HRD practises and organisational performance is mediated by employee performance. However the research was done in the hotel sector, it's possible that the analysis's findings was not hold true for other sectors. The relationship between HRD and improved employee performance has before been established on the basis of the discussion above.

STATEMENT OF THE PROBLEM

The majority of organizations do not have plans for the staff member's growth. After those individual are hired, the organizations do not orient them, train them to pick new capabilities or help them develop the skill and knowledge.

- Lack of Motivation
- Skill Gap
- Working Condition
- The majority of manufacturing companies proficiency in resource management.
- A high absence and turnover rate at work which is a result of subpar service training programmes.

HYPOTHESIS

H0:- Effective HRD does not increase productivity to improve an organization's performance.

H0:- Organizational growth is not a product of HR training & development effectiveness.

H0:- The productivity of an organization is not significant impacted by HRD.

RESEARCH DESIGN AND METHODOLOG

Research refers to a search for knowledge. It is as a systematic method for collecting and recording the facts in the forms of numerical data relevant to the formulated problem arriving at a certain conclusion over the problem based on collected data.

RESEARCH DESIGN

The survey and descriptive research design was chosen for this investigation. It was meticulously designed to guarantee that the data was collected objectively and that it was pertinent to the study topics.

NATURE OF STUDY

The study is inferential and analytical in nature.

SOURCES OF DATA

The primary data is collected by using questionnaires secondary data are collected from the published data available within the company and also from the internet and intranet.

METHOD OF SAMPLING:

The method used for the study is random sampling .

SIZE OF SAMPLE

The size of the sample is 50.

SCALE

Using Likert`s 5 point scale.

METHOD OF DATA ANALYSIS

Thus use the Yaro-Yamane methods

$$n = \frac{N}{1 + N(e^2)}$$

n= Sample Size

N= Total Population

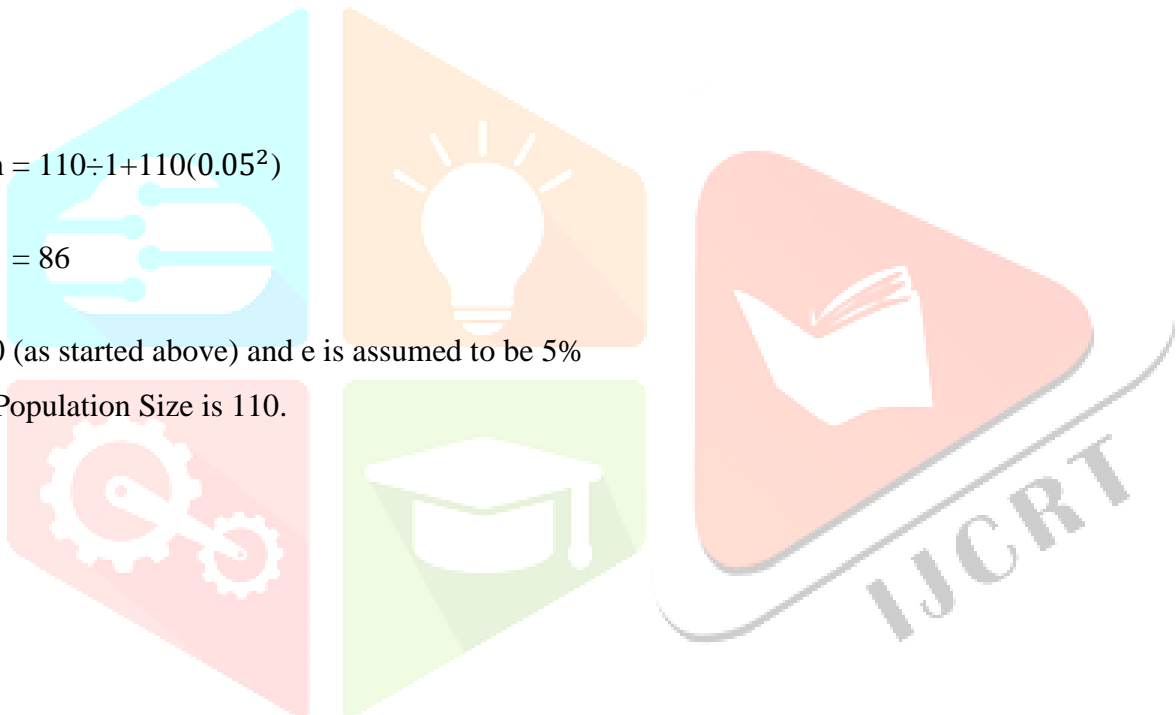
e= Margin of error disturbance

Then

$$n = 110 \div 1 + 110(0.05^2) = 86$$

N=110 (as started above) and e is assumed to be 5%

Total Population Size is 110.



DATA ANALYSIS AND INTERPRETATION

SL. NO	QUESTIONNAIRES	SA	A	N	D	SD	T
1	The development of HR is a crucial topic that can not be ignored in a organization.	19 (95)	19 (76)	7 (21)	1 (2)	4 (4)	50 (198)
2	Any organization ability to succeed is based on how well it`s management of HRD has been executed.	15 (75)	21 (84)	9 (27)	2 (4)	3 (3)	50 (193)
3	To improve an organization`s performance productivity can be increased.	16 (80)	16 (64)	12 (36)	4 (8)	2 (2)	50 (190)
4	Poor performance is an organization is outcomes of inefficient HR utilisation.	7 (35)	22 (88)	14 (42)	5 (10)	2 (2)	50 (177)
5	The advancement of HR contribute to the achievement of organizational objective.	12 (60)	22 (88)	6 (18)	7 (14)	3 (3)	50 (183)
6	Training & Development of HR promotes organization growth.	16 (80)	19 (76)	5 (15)	8 (16)	2 (2)	50 (189)
7	Employee under training negatively impacts the organization.	7 (35)	17 (68)	15 (45)	7 (14)	4 (4)	50 (166)
8	Poor performance and a decline in organizational growth are caused by lack of sufficient skilled people.	8 (40)	23 (92)	10 (30)	8 (16)	1 (1)	50 (179)
9	Organizational productivity is significant impacted by HRD.	10 (50)	23 (92)	11 (33)	2 (4)	3 (3)	50 (182)
10	High productivity results from properly managed HR in an organization.	8 (40)	21 (84)	11 (33)	9 (18)	1 (1)	50 (176)
11	Employee under performance is a results of the organization insufficient orientation.	4 (20)	19 (76)	18 (54)	7 (14)	2 (2)	50 (166)

12	Employee that receives adequate training & development perform at a high level which in turn results in organizational expansion.	8 (40)	21 (84)	15 (45)	4 (8)	2 (2)	50 (179)
13	HRD has a determined effect the productivity of a firm.	8 (40)	24 (96)	10 (30)	3 (6)	5 (5)	50 ((177))
14	Unplanned HRD by the business causes a decline in organizational productivity.	9 (45)	22 (88)	11 (33)	4 (8)	4 (4)	50 (178)
15	An organization ability to effectively develop its HR will lead to be a rise in organizational productivity.	11 (55)	19 (76)	11 (33)	6 (12)	3 (3)	50 (179)

TEST OF HYPOTHESES

Hypothesis one (Null)

$$Z = \frac{x - \mu}{\frac{SD}{\sqrt{zn}}}$$

x = sample mean

μ = Population mean

δ = Standard deviation

n = Sample size

H0 One (Null):- Question contained 1-5 from the table.

$$\text{Mean of population} = \frac{3 \times 50 \times 5}{5} = 150$$

$$\text{Mean of Sample } x = \sum \frac{x}{n} = 941/5 = 188$$

$$\text{Standard Deviation } \alpha = \frac{\sqrt{\sum (x-x')^2}}{n}$$

$$= \sqrt{\frac{(197 - 188)^2 + (193 - 188)^2 + (190 - 188)^2 + (177 - 188)^2 + (183 - 188)^2}{5}}$$

$$= \sqrt{\frac{9^2 + 5^2 + 2^2 + (-11)^2 + (-5)^2}{5}}$$

$$= \sqrt{\frac{81 + 25 + 4 + 121 + 25}{5}}$$

$$= \sqrt{\frac{256}{5}}$$

$$= \sqrt{51.2}$$

$$= 7.15$$

$$Z = \frac{x - \mu}{\frac{SD}{\sqrt{zn}}}$$

$$Z = \frac{188 - 150}{\frac{7.15}{\sqrt{5}}}$$

$$Z = \frac{38}{\frac{7.15}{2.24}}$$

$$Z = \frac{38}{3.19}$$

$$Z = 11.9$$

H0 Two (Null):- Question contained 6-10 from the table.

$$\text{Mean of population} = \frac{3 \times 50 \times 5}{5} = 150$$

$$\text{Mean of Sample } x = \sum \frac{x}{n} = 892/5 = 178$$

$$\text{Standard Deviation } \alpha = \frac{\sqrt{\sum(x-x')^2}}{n}$$

$$= \sqrt{\frac{(189 - 178)^2 + (166 - 178)^2 + (179 - 178)^2 + (182 - 178)^2 + (176 - 178)^2}{5}}$$

$$= \sqrt{\frac{11^2 + (-12)^2 + 1^2 + 4^2 + (-2)^2}{5}}$$

$$= \sqrt{\frac{121 + 144 + 1 + 16 + 4}{5}}$$

$$= \sqrt{\frac{286}{5}}$$

$$= \sqrt{57.2}$$

$$= 7.56$$

$$Z = \frac{x - \mu}{\frac{SD}{\sqrt{zn}}}$$

$$Z = \frac{178 - 150}{\frac{7.56}{\sqrt{5}}}$$

$$Z = \frac{28}{\frac{7.56}{2.24}}$$

$$Z = \frac{28}{3.37}$$

$$Z = 8.4$$

H0 Three (Null):- Question contained 11-15 from the table.

$$\text{Mean of population} = \frac{3 \times 50 \times 5}{5} = 150$$

$$\text{Mean of Sample } x = \frac{\sum x}{n} = 879/5 = 175$$

$$\text{Standard Deviation } \alpha = \frac{\sqrt{\sum(x-x')^2}}{n}$$

$$= \sqrt{\frac{(166 - 175)^2 + (179 - 175)^2 + (178 - 175)^2 + (177 - 175)^2 + (179 - 175)^2}{5}}$$

$$= \sqrt{\frac{(-11)^2 + 4^2 + 3^2 + 2^2 + 4^2}{5}}$$

$$= \sqrt{\frac{121 + 16 + 9 + 4 + 16}{5}}$$

$$= \sqrt{\frac{166}{5}}$$

$$= \sqrt{33.2}$$

$$= 5.77$$

$$Z = \frac{x - \mu}{\frac{SD}{\sqrt{Zn}}}$$

$$Z = \frac{175 - 150}{\frac{7.56}{\sqrt{5}}}$$

$$Z = \frac{25}{\frac{7.56}{2.24}}$$

$$Z = \frac{25}{2.57}$$

$$Z = 11.01$$

LIMITATIONS OF STUDY

- The results derived from such a survey are subjective in nature because employee perception is qualitative.
- Despite the researchers' best efforts to acquire accurate information from the respondents, there may still be isolated instances of incomplete data.
- Respondent bias is always a possibility when obtaining information on qualitative traits from respondents.

FINDING

- HRD is the process to develop the skill and competencies at all levels.
- HRD is a systematic, continuous and planned effort.
- The ultimate object of HRD is to develop the skill and knowledge of the employee.
- HRD is the process to trained and motivated the employee
- HRD is help to increase the organization productivity.
- HRD helps to provide skilled worker to organization.
- The Data analysis results in ensure that HRD is very important for any organization.

CONCLUSION

The improvement of individual performance in accordance with organisational performance while keeping in mind employee personal goals is the underpinning for current developments in HRD system design. The necessity of the hour is to overcome resistance to change by winning the psychological conflict of employee engagement through effective performance and evaluating criteria. In order to drive organisational performance and results, HRD "trend" is essential. The growing emphasis on developing a positive workplace culture in order to improve talent and competency is one of the most notable advancements. People's abilities to execute are crucial in modern knowledge-based economy because they are the main source of value creation and what propels the business forward.

SUGGESTIONS

- The respondents have a slight degree of unhappiness with the changing environment, but it must be highlighted that the changes that are made should inform them and make them a part of the changing environment. The key to better and more successful HRD trends is ensuring transparency in internal organisational changes.
- HRD trends need to give workers the tools to improve their performance and the chance to talk about their future career options. It must offer the chance to make plans and establish goals for advancing one's career.
- Human resources training and development should serve as a platform for the development and discovery of new talents.

The survey and descriptive research design was chosen for this investigation. It was meticulously designed to guarantee that the data was collected objectively and that it was pertinent to the study topics.

REFERENCES

(n.d.). Retrieved from https://www.youtube.com/watch?v=rO_bPHJDDO8

(n.d.). Retrieved from <https://www.youtube.com/watch?v=GgW9Uerd2BY>

(n.d.). Retrieved from https://docs.google.com/forms/d/1JT73wsoKzksI1FW_LeOlib66c6EZaWn93q-E7risMJw/viewform?edit_requested=true

(n.d.). Retrieved from <https://www.shiftboard.com/blog/top-3-chemical-industry-challenges-how-employee-scheduling-automation-helps/>

: *Measuring the impact of human resource development (HRD) practices on employee performance in small and medium scale enterprises. European Journal of Training and Development.*

: Al-qout, G. A. (2017). Historical research skills development in light of a training program for secondary stage history teachers. *Journal of Education and practice*,. (n.d.).

: The impact of HRM practices on organisational performance in the Indian hotel industry. (n.d.).

Abed, F. H. (2018, September). 10. Retrieved from https://www.researchgate.net/publication/327546162_Human_Resource_Development

Impact of human resource development, organizational commitment and compensation on employee performance. *International Journal of Humanities and Social Science Invention.* (n.d.).

Raymond, P. O. (2013). The Effect of Human Resources Development on Organizational Productivity. *International Journal of Academic Research in Business and Social Science* , 264-266.

Resources and performance of international joint ventures: the moderating role of absorptive capacity. (n.d.).

Shiv Prasad, B. (2018). Retrieved from <https://shodhganga.inflibnet.ac.in/handle/10603/380673>