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Research Article

An Assessment of The Impact of Training Participation on The Effectiveness of Training and Development Practices & Training Satisfaction

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ABSTRACT

The study aimed to examine the impact of training participation on two critical outcomes: the impact of training and development practices and Training satisfaction index. In this case, targeting employees of Rajasthan Rajya Vidyut Utpadan Nigam Limited (RRVUNL), the study aimed at establishing how the active involvement in training affects such factors and, thus, offer practical recommendations for enhancing the training initiatives in the public sector organizations. A descriptive and analytical research design was used. The research adopted a stratified random sampling technique to sample 350 employees drawn from different positions and organizations of RRVUNL. Questionnaire data were obtained from a survey tool that was developed to assess training participation, training satisfaction and training practices. The reliability of the instrument was verified by pilot testing of the questionnaire and review by experts. Descriptive statistics were used in the analysis of the collected data with a view of establishing the relationship between the variables. The results indicated that the level of training participation had positive and a substantial relationship with both the extent of training satisfaction as well as the training and development practices. Specifically, the results revealed that for those employees who engaged with the training activities most effectively, satisfaction levels were higher and the application of skills and knowledge into work more effective. These results underscore the importance of participation as a key determinant of training success. The study provides valuable insights for HR professionals and policymakers to optimize training investments. It highlights the importance of incorporating interactive and practice-oriented training strategies and ensuring organizational support for participation. Additionally, the findings offer a theoretical contribution by reinforcing the role of training participation in achieving desired training outcomes.

Key words: Training Participation, Training Satisfaction, Effectiveness of Training, Training and Development Practices

1 INTRODUCTION

Training and development are indispensable elements of modern organizational strategies, designed to equip employees with the knowledge, skills, and competencies necessary for their roles. Effective training programs serve as a catalyst for individual growth, organizational efficiency, and long-term sustainability in competitive markets. Beyond technical skill enhancement, training and development practices contribute to improved employee morale, engagement, and adaptability to organizational changes (Albtoosh & Ngah, 2022). As industries evolve, the need for innovative, participant-centric training approaches has become paramount, as they ensure that employees remain relevant and effective in their respective fields.

Engagement in training has been acknowledged to be an essential prerequisite of training effectiveness. It is also proposed that on average, the trained employees are more likely to gain higher levels of value from the training and development with the ability to apply their learnings to organizational improvement. A study about training participation showed that it increases satisfaction because When training is aligned with employees' career paths, motivation is promoted and the employees feel that they own the process (Griffith et

al., 2022). Further, the training participation has a positive influence on the total utilization of training and development program by giving a chance to apply newly acquired knowledge and skills (Lee & Lee, 2022).
The subject of interest in this research is RRVUNL, a public sector utility company in India that attaches high importance to training as a means of enhancing employee performance and organisational output. Since employees in the public sector are charged with the responsibility of delivering services, the efficiency of the training programmes assumes importance. The study explores the impact of training participation on two vital outcomes: training and development and training satisfaction.
This research is based on descriptive and analytical research method as a way of giving a detailed account of the perceptions of the employees as well as analytical results of the participation of the training and its outcomes. The study focusing on RRVUNL employees allows identifying the practical recommendations on how training can be better matched to the needs of the employees and the goals of the organization belonging to the public sector. The results are expected to contribute to the existing literature on training effectiveness, in providing a framework through which organisations can increase the utility of their training interventions in the long-term.

2 REVIEW OF LITERATURE

In their study, Kelly et al. (2023) assessed the feasibility of the "Resistance Training for Teens" (RT4T) program in schools in Australia. This was done in order to evaluate the effects of training on the three levels of implementation support namely low, moderate and high. The study showed that increased support such as equipment contributed to enhanced programme access and delivery as intended. The study finding was that the support models developed increased the sustainability and the effectiveness of the school-based training.
Griffith et al. (2022) conducted a study on the effectiveness of a mental skills training course for collegiate athletes. This 6-session program aimed to enhance mental toughness and coping skills. The findings revealed significant improvements in both mental toughness and coping skills post-training, with lasting effects on coping skills after four months. Participants expressed high satisfaction with the course, rating it highly for its relevance and positive impact on mental preparedness. The study concluded that structured mental skills training effectively supports athletes' psychological readiness. Albtoosh and Ngah (2022) performed a systematic review of training satisfaction literature spanning two decades. They categorized studies into themes such as training satisfaction criteria, factors influencing satisfaction, and its impacts. Findings highlighted that satisfaction is highest when training aligns with trainees' expectations, with active and practice-oriented strategies playing a crucial role. The review emphasized the importance of incorporating the Kirkpatrick model in training evaluation, particularly focusing on reaction and learning levels.
Lee and Lee (2022) analyzed the K-Digital Training (KDT) project in South Korea. The study identified that participating companies were highly satisfied with the program's project-based approach and smart training features. Significant improvements in trainee competency and learning attitudes were reported. The research concluded that project-based and digitally enabled training approaches are effective in fostering digital skills and meeting organizational needs. Nor et al. (2021) examined the impact of employee satisfaction and commitment on training effectiveness. The study used a quantitative approach with 100 public sector employees. Findings indicated a significant relationship between employee satisfaction and training effectiveness, with no substantial effect of employee commitment. Gender and experience were factors influencing the relationship between satisfaction and effectiveness. The study concluded that fostering employee satisfaction is critical to enhancing training outcomes.
Melo and Das (2020) analyzed how skill development training impacted employment among 200 households in Arunachal Pradesh. The study revealed that participation in one-year-long skill development training was more effective in enhancing non-farm employment opportunities compared to shorter programs. The authors concluded that extended training sessions significantly influence both employment and income generation.
Paposa and Kumar (2019) examine the link between training practices and job satisfaction of 360 technical education faculty members in Nagpur, India. The findings shown that there is a significant positive relationship between training and job satisfaction. The authors suggested that various training needs analysis should be done in various education institutions to enhance individual and organisational development.
The management of human resources stands as a complex task according to (Sharma & Gupta, 2020) since employee satisfaction directly impacts workplace productivity. Researchers conducted a job satisfaction survey which included seven industries: insurance, banking and finance, travel and tourism, outsourcing, education, healthcare, and logistics. Healthcare employees experienced the most job satisfaction whereas staff in education and travel and tourism were next followed by insurance and outsourcing having the lowest satisfaction rates. According to the research findings service-based healthcare work combined with educational services enhances job satisfaction but outsourcing and insurance functions lead to lower job satisfaction. The job satisfaction variability was relatively low in healthcare combined with travel and tourism and education yet it was high in outsourcing with banking and finance and logistics sectors. The research results can assist business leaders to develop human resource strategies that increase work satisfaction and performance. Future studies should expand their research by incorporating more industries and respondents and a control group because the current study has limited scope and small sample size.

The education industry faces rising competition which drives institutions to prioritize the implementation of ICT tools during teaching and learning processes according to (Sharma & Gupta, 2020). These information and communication technologies present different degrees of acceptance and implementation hurdles to different departments. Computer Science professors demonstrate better proficiency but Humanities together with Sports departments encounter difficulties because of their academic material. The leaders in education industries need to treat ICT tools as specialized interventions which match the expertise of each department. The tools will become more effective at both energizing and innovating education when properly implemented for the industry to deliver better returns to stakeholders.

Kutlay and Şafakli (2019) studied the training of Asbank employees in their research. It was established in the study that although training elicited some positive changes on knowledge, it did not have a similar impact on behaviour and performance as indicated by 97 respondents. The authors recommended more enhanced training programs to get better outcomes. In Malaysia, Abdullah et al. (2018) conducted a research to determine the impact of CPD training on teaching performance among lecturers in a university. With data collected from 2015 to 2017, the study indicated that the proportion of variance in teaching performance that could be accounted for by participation in the CPD training was 11%. The authors underlined the need for a continuous engagement in CPD to sustain and improve the quality of teaching. Webster (2018) studied the role of managerial involvement in workplace coaching. The findings revealed that discretionary managerial involvement enhanced training effectiveness, while prescribed participation had limited impact. The study emphasized tailoring coaching methods to optimize outcomes.

Han et al. (2016) examined the effect of participation in off-the-job training (Off-JT) versus on-the-job training (OJT) among small manufacturing firm employees in Chung-nam Province, South Korea. Off-JT satisfaction was notably higher, contributing to improved self-development and system satisfaction. The authors recommended restructuring OJT methods to boost employee perceptions of training efficacy. Huang et al. (2014) analyzed training methods and demographic factors influencing participation in voluntary training. Surveying 5,727 participants, the study found only 16.46% participation post-training. Key factors included training delivery method and previous training history. The authors suggested tailored training strategies to enhance volunteer engagement.

Jaacob (2014) explored the effects of employee training and participation in Total Quality Management (TQM) on customer satisfaction. Data from 205 employees revealed significant impacts mediated by employee satisfaction. The study recommended prioritizing training and active participation in TQM initiatives. Elnaga and Imran (2013) reviewed literature on the effects of training on employee performance. The study highlighted that effective training programs significantly enhance workforce productivity. However, the authors noted the need for empirical research to further establish these relationships, concluding that tailored training is essential for performance optimization. Lee and Ju (2013) investigated educational training traits affecting organizational effectiveness and job performance among 286 employees in Busan, South Korea. Results indicated that job-related training and clear objective setting significantly improved job performance. The study emphasized the importance of repeated training participation in boosting skills and confidence. Based upon the literature studies following hypotheses have been presented –

H_1 - There is a significant impact of Training participation on Effectiveness of Training and Development Practices.

H_2 - There is a significant impact of Training participation on Training Satisfaction.

3 RESEARCH METHODOLOGY

The study fell within the realms of Descriptive research and Analytical research. It was descriptive as it aimed to systematically investigate the relationship between training participation and its impact on training satisfaction and the effectiveness of training and development practices. This nature of research was appropriate for providing a detailed understanding of the variables involved and their interactions. Simultaneously, the study was analytical as it employed statistical methods to analyze the data, testing hypotheses to determine the strength and significance of the relationships between the studied variables.

The target population for this study of organizational training programs included only the employees of Rajasthan Rajya Vidyut Utpadan Nigam Limited (RRVUNL) who had attended the training. The participants were chosen using a stratified random sampling method. This approach made it possible to capture the views of individuals at different ranks in the organization as well as across departments and job positions. This target was reached taking into consideration the total number of participants to be 350, which would provide statistically meaningful and representative results. The justification that was given for selecting stratified random sampling was that it would reduce sampling bias and ensure that all important categories in the organisation are included in the sample.

In the course of the study, the researcher used a questionnaire based survey method to obtain primary data. The questions in the self-completion questionnaire were developed to assess the identified variables – the level of participation in training, training satisfaction, and perceived effectiveness of training and development practices. Based on the literature review, items were designed to reflect theoretical constructs that are already defined in the literature. The questionnaire was designed to contain only closed questions with Likert scale and few other questions where the participants were free to express themselves in their own words.

The reliability of the questionnaire was established by a pilot test which was carried out on a sample of employees of RRVUNL. The actual questionnaire was developed to be clear, relevant, and reliable and pilot test feedback was used to make improvements to the questionnaire. Further, the views of experts in training and human resource management were sought to confirm the content validity of the items used to measure the constructs.

Data collection at RRVUNL was done through structured self-administered electronic questionnaires among the selected employees. The respondents were informed about the aim of the study and the results were promised to be kept confidential with the intention of eliciting accurate and detailed answers. Control measures were adopted on the data collection process to ensure a high response rate and quality data hence making the analysis very robust.

4 RESEARCH OBJECTIVES

I To assess the impact of Training participation on Effectiveness of Training and Development Practices.
II To examine the impact of Training participation on Training Satisfaction.

Table-1 Models Info

Estimation Method	ML
Optimization Method	NLMINB
Number of observations	350
Free parameters	105
Standard errors	Standard
Scaled test	None
Converged	TRUE
Iterations	71
Model	Training participation =~EPTP1+EPTP2+EPTP3+EPTP4
	Training Satisfaction=~OBJ1+OBJ2+OBJ3+MET1+MET2+MET3+MET4+MET5+MET6+USE1+USE2+USE3
	Effectiveness of Training and Development Practices=~JT1+JT2+JT3+JT4+JT5+JT6+JT7+OT1+OT2+OT3+OT4+OT5+CDT1+CDT2+CDT3+CDT4+CDT5+CDT6
	Training Satisfaction~Training participation
	Effectiveness of Training and Development Practices~Training participation

The table summarizes details of a model used to evaluate training participation, satisfaction, and the effectiveness of training and development practices. The model was estimated using Maximum Likelihood (ML) with the NLMINB optimization method, based on 350 observations and 105 free parameters. Standard errors were computed without scaling tests. The model successfully converged after 71 iterations. It defines three latent variables: Training Participation, represented by indicators EPTP1 to EPTP4; Training Satisfaction, measured by OBJ1 to OBJ3, MET1 to MET6, and USE1 to USE3; and Effectiveness of Training and Development Practices, represented by JT1 to JT7, OT1 to OT5, and CDT1 to CDT6. Additionally, the model specifies that Training Satisfaction is influenced by Training Participation, and Effectiveness of Training and Development Practices is also influenced by Training Participation.

Table-2 Model tests

Label	X^2	df	p
User Model	5505	524	< .001
Baseline Model	8170	561	< .001

The table presents model test results, comparing the fit of the User Model and the Baseline Model. The User Model has a chi-square (X2X^2X2) value of 5505 with 524 degrees of freedom (dfdfdf), and a p-value less than 0.001, indicating a statistically significant lack of perfect fit but suggesting the model captures meaningful relationships given the complexity. The Baseline Model, used for comparison, has a higher X2X^2X2 value of 8170 with 561 degrees of freedom, also with a p-value less than 0.001, indicating poorer fit relative to the User Model. The lower X2X^2X2 value of the User Model suggests it provides a significantly better representation of the data compared to the simpler Baseline Model.

Table-3 Fit indices

		95% Confidence Intervals		
SRMR	**RMSEA**	**Lower**	**Upper**	**RMSEA p**
0.147	0.165	0.161	0.169	< .001

The table provides fit indices to evaluate the model's overall performance. The Standardized Root Mean Square Residual (SRMR) is 0.147, indicating a higher-than-desirable level of residual differences between the observed and predicted correlations. The Root Mean Square Error of Approximation (RMSEA) is 0.165, with a 95% confidence interval ranging from 0.161 to 0.169, reflecting suboptimal fit as it exceeds the commonly accepted threshold of 0.08 for good fit. Additionally, the RMSEA p-value is less than 0.001, indicating that the null hypothesis of close fit (RMSEA ≤ 0.05) is statistically rejected. These indices suggest that the model fit requires improvement.

Table-4 User model versus baseline model

	Model
Comparative Fit Index (CFI)	0.345
Tucker-Lewis Index (TLI)	0.299
Bentler-Bonett Non-normed Fit Index (NNFI)	0.299
Relative Noncentrality Index (RNI)	0.345
Bentler-Bonett Normed Fit Index (NFI)	0.326
Bollen's Relative Fit Index (RFI)	0.279
Bollen's Incremental Fit Index (IFI)	0.349
Parsimony Normed Fit Index (PNFI)	0.305

The table compares the fit of the User Model against the Baseline Model using various indices. The Comparative Fit Index (CFI) and Relative Noncentrality Index (RNI) are both 0.345, and the Tucker-Lewis Index (TLI) and Non-normed Fit Index (NNFI) are 0.299, all of which are significantly below the acceptable threshold of 0.90, indicating poor model fit. Similarly, the Bentler-Bonett Normed Fit Index (NFI) (0.326) and Bollen's Relative Fit Index (RFI) (0.279) also fall short of acceptable standards. The Incremental Fit Index (IFI) is slightly higher at 0.349 but remains inadequate. The Parsimony Normed Fit Index (PNFI) is 0.305, reflecting weak parsimony-adjusted fit. These indices collectively suggest that the User Model does not fit the data well when compared to the Baseline Model, highlighting significant areas for model refinement.

Table-5 Parameters estimates

				95% Confidence Intervals				
Dep	**Pred**	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**z**	**p**
Training Satisfaction	Training participation	0.247	0.0718	0.106	0.388	0.713	3.44	< .001
Effectiveness of Training and Development Practices	Training participation	0.812	0.0911	0.633	0.99	0.882	8.92	< .001

The analysis provides critical insights into the relationship between training participation and two important outcomes: Training Satisfaction and the Effectiveness of Training and Development Practices. The results highlight the significant positive impact of training participation on both variables, underscoring the value of well-designed training programs.

The estimated regression coefficients for training participation on training satisfaction is 0.247 with a standard error of 0.0718. The 95% confidence interval of this estimate range from 0.106 to 0.388 which means the true effect size is positive and statistical significance. The standardized beta coefficient (\(\beta = 0.713\)) suggest a high degree of association of the extent of participation in training programs with satisfaction levels. The \(z\)-value of 3.44 and \(p<0.001\) substantiate this result. Implications of these findings are that, as employees participate in training, their levels of satisfaction with such trainings greatly enhances.

Training participation is positively related with the perceived effectiveness of training and development practices and this relationship is stronger. We have the estimated effect of 0.812 with a standard error of 0.0911, confidence interval of 0.633 to 0.990 at 95 percent level of significance. This computed and standardized beta coefficient (\(\beta = 0.882\)) shows a very high level of association that training participation is likely to influence perceived effectiveness. The \(z\)-value of 8.92 and \(p < 0.001\) also confirm the stability of this effect. These conclusions suggest that higher engagement in training improves satisfaction while at the same time strengthening the perception of the total effectiveness of the training and development processes in an organisation.

Figure 1 – Path Diagram

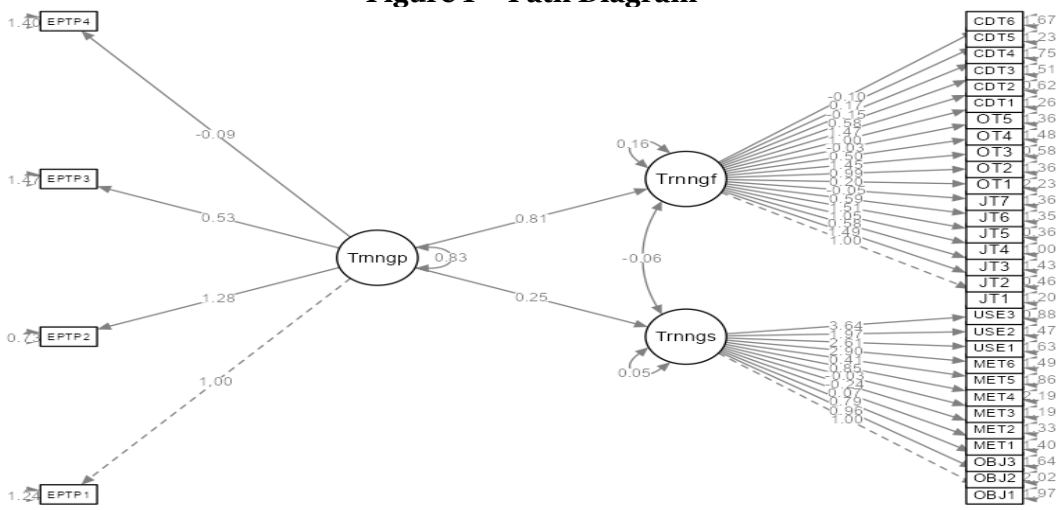

Table-6 Measurement model

				95% Confidence Intervals				
Latent	**Observed**	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**z**	**p**
Training participation	EPTP1	1	0	1	1	0.63408		
	EPTP2	1.2846	0.1058	1.07733	1.4919	0.80729	12.147	< .001
	EPTP3	0.5287	0.0841	0.36389	0.6936	0.3689	6.286	< .001
	EPTP4	-0.0944	0.0738	-0.239	0.0503	-0.0725	-1.279	0.201
Training Satisfaction	OBJ1	1	0	1	1	0.21981		
	OBJ2	0.9604	0.3765	0.22246	1.6983	0.20875	2.551	0.011
	OBJ3	0.7902	0.3254	0.15252	1.4279	0.1915	2.429	0.015
	MET1	0.0656	0.2278	-0.3808	0.512	0.01749	0.288	0.773
	MET2	-0.2363	0.2299	-0.6869	0.2143	-0.0647	-1.028	0.304
	MET3	-0.0269	0.2096	-0.4378	0.3839	-0.0078	-0.128	0.898
	MET4	0.8498	0.3652	0.1341	1.5655	0.17849	2.327	0.02
	MET5	0.409	0.2842	-0.148	0.966	0.09421	1.439	0.15
	MET6	2.896	0.8186	1.29164	4.5005	0.60021	3.538	< .001
	USE1	2.6088	0.7476	1.14355	4.0741	0.54225	3.49	< .001
	USE2	1.9672	0.581	0.82838	3.106	0.45583	3.386	< .001
	USE3	3.6359	1.0066	1.66297	5.6089	0.77494	3.612	< .001
Effectiveness of Training and Development Practices	JT1	1	0	1	1	0.60858		
	JT2	1.4857	0.1158	1.25867	1.7127	0.87924	12.827	< .001
	JT3	0.5755	0.0886	0.40189	0.7491	0.37472	6.498	< .001
	JT4	1.0475	0.0999	0.85166	1.2434	0.65974	10.481	< .001
	JT5	1.5091	0.1158	1.28223	1.736	0.90257	13.037	< .001
	JT6	0.5922	0.0873	0.42109	0.7633	0.393	6.784	< .001
	JT7	-0.0476	0.0764	-0.1974	0.1022	-0.0343	-0.623	0.533
	OT1	0.1957	0.0989	0.00183	0.3896	0.10924	1.978	0.048
	OT2	0.9868	0.1044	0.78227	1.1914	0.57867	9.456	< .001
	OT3	1.4522	0.1159	1.22503	1.6794	0.84768	12.529	< .001
	OT4	0.5003	0.0875	0.32878	0.6717	0.32608	5.718	< .001
	OT5	-0.0254	0.0765	-0.1753	0.1246	-0.0182	-0.332	0.74
	CDT1	0.9979	0.1027	0.79651	1.1992	0.59836	9.713	< .001
	CDT2	1.4715	0.1178	1.24064	1.7024	0.84392	12.492	< .001
	CDT3	0.5801	0.0906	0.40259	0.7577	0.36878	6.404	< .001
	CDT4	-0.1458	0.0874	-0.3171	0.0254	-0.092	-1.669	0.095
	CDT5	0.1681	0.0738	0.02353	0.3127	0.126	2.279	0.023
	CDT6	-0.1015	0.085	-0.2681	0.0652	-0.0657	-1.193	0.233

The table presents the measurement model results, detailing the relationships between latent variables (Training Participation, Training Satisfaction, and Effectiveness of Training and Development Practices) and their observed indicators. For each observed variable, the table provides the estimated loading, standard error (SE), confidence intervals, standardized loading (β\betaβ), z-scores, and p-values. For Training Participation, all observed variables except EPTP4 significantly contribute to the latent construct, with standardized loadings ranging from moderate to high (e.g., EPTP2: 0.807, p<0.001p < 0.001p<0.001). Training Satisfaction shows significant contributions from some indicators, such as MET6 (β=0.600,p<0.001\beta = 0.600, p < 0.001β=0.600,p<0.001) and USE3 (β=0.775,p<0.001\beta = 0.775, p < 0.001β=0.775,p<0.001), while others, like MET3 and MET5, are nonsignificant. Effectiveness of Training and Development Practices is strongly predicted by most indicators, such as JT2 (β=0.879,p<0.001\beta = 0.879, p < 0.001β=0.879,p<0.001) and CDT2 (β=0.844,p<0.001\beta = 0.844, p < 0.001β=0.844,p<0.001), though some, like JT7 and OT5, are nonsignificant. Overall, the model indicates good support for many observed variables in defining their respective latent constructs, though some items exhibit weak or nonsignificant relationships, suggesting areas for potential model refinement.

Table-7 Variances and Covariances

				95% Confidence Intervals				
Variable 1	**Variable 2**	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**z**	**p**
EPTP1	EPTP1	1.2351	0.104	1.03126	1.4389	0.598	11.88	< .001
EPTP2	EPTP2	0.7324	0.0902	0.55562	0.9091	0.348	8.12	< .001
EPTP3	EPTP3	1.4738	0.1137	1.25096	1.6967	0.864	12.96	< .001
EPTP4	EPTP4	1.3997	0.1059	1.19215	1.6072	0.995	13.22	< .001
OBJ1	OBJ1	1.9657	0.1508	1.67018	2.2612	0.952	13.04	< .001
OBJ2	OBJ2	2.0201	0.1547	1.71688	2.3233	0.956	13.06	< .001
OBJ3	OBJ3	1.637	0.1251	1.3918	1.8822	0.963	13.09	< .001
MET1	MET1	1.403	0.1061	1.19514	1.6109	1	13.23	< .001
MET2	MET2	1.3269	0.1004	1.13007	1.5237	0.996	13.21	< .001
MET3	MET3	1.1942	0.0903	1.01724	1.3711	1	13.23	< .001
MET4	MET4	2.1902	0.1671	1.86266	2.5178	0.968	13.1	< .001
MET5	MET5	1.8643	0.1413	1.58739	2.1412	0.991	13.2	< .001
MET6	MET6	1.4863	0.1351	1.22153	1.7511	0.64	11	< .001
USE1	USE1	1.6307	0.1405	1.35531	1.9061	0.706	11.61	< .001
USE2	USE2	1.4725	0.1205	1.23636	1.7086	0.792	12.22	< .001
USE3	USE3	0.8776	0.1189	0.64457	1.1106	0.399	7.38	< .001
JT1	JT1	1.1969	0.0937	1.01327	1.3805	0.63	12.78	< .001
JT2	JT2	0.4562	0.0432	0.37152	0.5409	0.227	10.56	< .001
JT3	JT3	1.4273	0.1089	1.21383	1.6408	0.86	13.1	< .001
JT4	JT4	1.0024	0.0793	0.84693	1.1579	0.565	12.63	< .001
JT5	JT5	0.3648	0.0373	0.29176	0.4379	0.185	9.79	< .001
JT6	JT6	1.3517	0.1033	1.14927	1.5541	0.846	13.09	< .001
JT7	JT7	1.3576	0.1026	1.15645	1.5588	0.999	13.23	< .001
OT1	OT1	2.2328	0.1689	1.90179	2.5639	0.988	13.22	< .001
OT2	OT2	1.3618	0.106	1.15392	1.5696	0.665	12.84	< .001
OT3	OT3	0.5815	0.0518	0.48009	0.683	0.281	11.24	< .001
OT4	OT4	1.4809	0.1127	1.25993	1.7018	0.894	13.14	< .001
OT5	OT5	1.3627	0.103	1.16077	1.5646	1	13.23	< .001
CDT1	CDT1	1.257	0.0982	1.06453	1.4495	0.642	12.8	< .001
CDT2	CDT2	0.616	0.0545	0.50915	0.7229	0.288	11.3	< .001
CDT3	CDT3	1.5054	0.1148	1.28028	1.7305	0.864	13.11	< .001
CDT4	CDT4	1.7527	0.1326	1.49292	2.0125	0.992	13.22	< .001
CDT5	CDT5	1.2337	0.0933	1.05076	1.4167	0.984	13.22	< .001
CDT6	CDT6	1.6721	0.1264	1.42432	1.9199	0.996	13.23	< .001
Training participation	Training participation	0.8305	0.1333	0.56927	1.0916	1	6.23	< .001
Training Satisfaction	Training Satisfaction	0.0491	0.0274	-0.0046	0.1029	0.492	1.79	0.073
Effectiveness of Training and Development Practices	Effectiveness of Training and Development Practices	0.1565	0.0418	0.07456	0.2384	0.222	3.74	< .001
Training Satisfaction	Effectiveness of Training and Development Practices	-0.0563	0.0198	-0.0951	-0.0175	-0.643	-2.85	0.004

The table presents the variances and covariances of observed and latent variables, assessing their relationships and levels of variability. Variances of observed variables (e.g., EPTP1 to CDT6) are generally significant, with standardized loadings (β\betaβ) indicating moderate to strong associations, such as EPTP3 (β=0.864\beta = 0.864β=0.864, p<0.001p < 0.001p<0.001) and JT6 (β=0.846\beta = 0.846β=0.846, p<0.001p < 0.001p<0.001). This suggests substantial contributions to their respective constructs.

Latent variables also display significant variance. For Training Participation, the variance is 0.8305 (p<0.001p < 0.001p<0.001), indicating strong variability within this construct. For Effectiveness of Training and Development Practices, variance is 0.1565 (p<0.001p < 0.001p<0.001), showing more modest variability. However, the variance for Training Satisfaction is not significant (p=0.073p = 0.073p=0.073), suggesting limited variability.

The covariance between Training Satisfaction and Effectiveness of Training and Development Practices is negative (-0.0563, p=0.004p = 0.004p=0.004), indicating a weak inverse relationship. Overall, the table highlights that while most variables significantly contribute to their constructs, some relationships and variances warrant further exploration or refinement.

Table-8 Intercepts

			95% Confidence Intervals			
Variable	**Intercept**	**SE**	**Lower**	**Upper**	**z**	**p**
EPTP1	3.386	0.077	3.235	3.536	44.073	< .001
EPTP2	2.946	0.078	2.794	3.098	38.004	< .001
EPTP3	3.583	0.07	3.446	3.72	51.319	< .001
EPTP4	3.874	0.063	3.75	3.999	61.104	< .001
OBJ1	3.386	0.077	3.235	3.536	44.073	< .001
OBJ2	2.954	0.078	2.802	3.107	38.03	< .001
OBJ3	3.589	0.07	3.452	3.725	51.501	< .001
MET1	3.871	0.063	3.747	3.996	61.137	< .001
MET2	3.957	0.062	3.836	4.078	64.134	< .001
MET3	4.006	0.058	3.891	4.12	68.575	< .001
MET4	3.683	0.08	3.525	3.84	45.808	< .001
MET5	3.843	0.073	3.699	3.987	52.42	< .001
MET6	3.611	0.081	3.452	3.771	44.326	< .001
USE1	3.554	0.081	3.395	3.714	43.751	< .001
USE2	3.66	0.073	3.517	3.803	50.224	< .001
USE3	3.363	0.079	3.208	3.518	42.446	< .001
JT1	3.477	0.074	3.333	3.622	47.182	< .001
JT2	3.189	0.076	3.04	3.337	42.074	< .001
JT3	3.654	0.069	3.519	3.789	53.054	< .001
JT4	3.58	0.071	3.44	3.72	50.271	< .001
JT5	3.246	0.075	3.099	3.393	43.282	< .001
JT6	3.7	0.068	3.568	3.832	54.748	< .001
JT7	3.837	0.062	3.715	3.959	61.574	< .001
OT1	3.586	0.08	3.428	3.743	44.625	< .001
OT2	3.409	0.076	3.259	3.558	44.567	< .001
OT3	3.206	0.077	3.055	3.356	41.722	< .001
OT4	3.626	0.069	3.491	3.761	52.694	< .001
OT5	3.894	0.062	3.772	4.017	62.401	< .001
CDT1	3.523	0.075	3.376	3.669	47.099	< .001
CDT2	3.226	0.078	3.072	3.379	41.248	< .001
CDT3	3.737	0.071	3.599	3.875	52.967	< .001
CDT4	3.706	0.071	3.566	3.845	52.144	< .001
CDT5	4.026	0.06	3.908	4.143	67.266	< .001
CDT6	3.649	0.069	3.513	3.784	52.672	< .001
Training participation	0	0	0	0		
Training Satisfaction	0	0	0	0		
Effectiveness of Training and Development Practices	0	0	0	0		

This table presents the intercepts for both observed and latent variables in the model, along with their standard errors (SE), confidence intervals, and significance levels. The intercepts for observed variables such as EPTP1 (3.386, p<0.001p < 0.001p<0.001), OBJ1 (3.386, p<0.001p < 0.001p<0.001), and MET1 (3.871, p<0.001p < 0.001p<0.001) are all highly significant, indicating that the baseline levels of these variables (when the predictors are at zero) are meaningfully above zero.
Confidence intervals for each intercept are narrow, demonstrating high precision in these estimates. For example, the intercept for MET3 is 4.006 with a 95% confidence interval of [3.891, 4.12]. The zzz-scores for most variables exceed 40, reflecting strong statistical significance (p<0.001p < 0.001p<0.001) across the board.
The latent variables Training Participation, Training Satisfaction, and Effectiveness of Training and Development Practices have intercepts set to zero, as is standard in structural equation modeling to serve as a reference point for other variables in the model. Overall, the results confirm the substantial and consistent baseline levels of the observed variables in their respective constructs.

5 DISCUSSION

The study aimed to evaluate the significant impact of training participation on two key aspects: the effectiveness of training and development practices and training satisfaction. The findings indicated a robust and meaningful relationship between training participation and the aforementioned variables, emphasizing the critical role of active engagement in training programs.
The cross tabulation results also showed that training participation was a powerful variable that could increase the effectiveness of training and development practices. Workers who engaged themselves in the training sessions showed enhanced practical use of the knowledge and skills gained in the training sessions to produce positive organizational results. The results are in concordance with previous studies, which have stressed on the active approach to training as a requisite for learning and behavior modification (Lee & Lee, 2022).
Further, the analysis of the results confirmed that training participation has a large positive effect on training satisfaction. Those participants who engaged themselves in training process are likely to have high levels of satisfaction due to the characteristics that are personalization and relevance to their professions. This result resonates with the study by Albtoosh and Ngah (2022) that notes that the highest level of satisfaction in training is obtained when such training meets the participants' expectations and involves activity-based, practice-based strategies.
Notably, the outcomes of this study are in harmony with the findings of Griffith et al. (2022) who argued that meaningful and well-organized training sessions help to enhance mental readiness and satisfaction of athletes. In the same manner, the direct correlation between participation and effectiveness corresponds to the findings of several studies that have stressed on the use of the participation and activity based training methods as being useful in increasing the training outcomes (Albtoosh & Ngah, 2022; Griffith et al., 2022).

6 CONCLUSION

According to the study, engagement in the training programs is a significant predictor of training and development practices and satisfaction levels of trainees. Training participation enables participants to gain skills and knowledge required for training as well as ensuring that they own the entire process hence increasing their satisfaction. These findings call for the use of participatory and learner-engaging training approaches in organizations to enhance results. The findings of this study augment the existing knowledge base of how participation in training is a key enabler to achieving organisational development goals, in alignment with prior research and enhancing the theoretical and practical understanding of training and development.

7 STUDY IMPLICATION

By so doing, the study provides rich theoretical and practical contributions to the field of training and development for organizations, training practitioners, and researchers. These implications offer practical suggestions for enhancing training attendance and the utilization of training participation to enhance training satisfaction and the outcomes of training and development initiatives.
From a conceptional point of view, the study brings out the importance of participation in the active sense in the process of training in order to realise positive training outcomes. Thus, the findings of this study add to the literature by presenting evidence of the link between participation and satisfaction, and its effect on the utility of training. They support and expand the theories based on the concept of learners' engagement and involvement suggested by various approaches, for instance, the theory of experiential learning and principles of andragogy. This theoretical foundation provides researchers with a sound referent for further investigation and a starting point to build further enhanced models of training efficacy.
From a practical perspective, the study shows that organisations must focus on the use of training that is centred on participation. This points to the need for developing training that engages participants through a range of participatory and effective modalities. For example, using such learning approaches as hands-on, real-life, and collaborative can greatly increase the level of participation, and therefore the level of satisfaction and

performance. Another way that organizations may benefit from personalised training is that content can be targeted toward various roles, preferences or career goals to ensure the training stays relevant and is effective. The conclusions also underline the role of management and leadership engagement in creating the organizational learning culture. If the training activities are supported by the managers and leaders of the employees and organizations, then there will be increased training satisfaction. This can promote the maximization of the employees' commitment to the training offered thus increasing it's impact.

The study also has implication on decision making and resource budgeting in organizations. In this manner, the results presented in this paper contribute to demonstrating the importance of training participation and promote the necessity of increasing investments in approaches that would facilitate engagement. Such may mean funding to enhance on training facilities, embracing of new technologies in delivery, or offering of incentives.

8 FUTURE SCOPE OF THE STUDY

The conclusion of this study opens up a variety of research directions and practical improvements to the field of training and development. A first fruitful line of research is the generalization of the study's findings in different fields and types of organizations. This paper aims at identifying how the level of participation of employees in training influences the levels of satisfaction and effectiveness in technology, health sector, education, and manufacturing industries so as reveal specific trends in the industries. This information could be useful in adjusting the programs to meet the needs of the workforce in organisations. Personalized training approaches are another area that can be considered as a very promising for the further research. It is also possible to take the results of this study as a starting point for future research that will investigate further the role of the training preferences, learning styles, and abilities of the participants in enhancing the impact of the training. It is possible to suggest that with the help of the personalization of training activities, engagement will be improved which, in its turn, will increase satisfaction and effectiveness of training, which makes training activities more valuable.

One of the new trends that need further investigation is the incorporation of technology into the training process. Thanks to the development of e-learning platforms and other modern means of training delivery it is crucial to identify the impact of the new forms of training on participation, satisfaction and efficiency in comparison with face-to-face training approaches. Such research can help organizations to determine the best and effective training modes for their human resource. Another potential line of research is that of intervention-based research and more specifically of studies that address the development of new and effective engagement approaches. Other training procedures like using games, peer coaching, and project based training could be considered as viable options to improve participation and satisfaction levels. Such interventions may provide practical recommendations for organizations that would like to enhance the effectiveness of training. Last but not the least, the economic consequences of training participation continue to be an important field of enquiry for further studies. Assessing the costs of extensive training with participation and evaluating the effectiveness and return on investment can help organizations grant the costs of training a rationality they need. They could identify positive financial outcomes of effective training and development and the effects of such training on the organizational performance.

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