Strategic Training Needs Assessment in Tanzania's Public Sector: Insights from the Addie Model at NHIF

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Abstract

Effective training in the public sector requires a structured and strategic approach to identifying and addressing employee competency gaps. This study explored the application of the ADDIE model, comprising Analysis, Design, Development, Implementation, and Evaluation in guiding Training Needs Assessment (TNA) practices at the National Health Insurance Fund (NHIF) in Tanzania. Employing a mixed-methods approach, the study collected quantitative data from 152 NHIF employees and qualitative insights from 12 key informants through semi-structured interviews. Quantitative findings revealed a significant positive correlation between the Analysis phase of ADDIE and employee performance, with regression analysis confirming it as the strongest predictor of effective training outcomes. However, qualitative data highlighted key challenges, including informal and inconsistent needs analysis, generic training content, and weak post-training evaluation mechanisms. The study concludes that while NHIF's training initiatives reflect elements of the ADDIE model, gaps in systematic analysis, content customisation, and outcome evaluation hinder their strategic impact. The findings offer practical implications for strengthening TNA frameworks in Tanzania's public institutions and contribute to the broader discourse on human resource development in the Global South.

Keywords: *Training Needs Assessment, ADDIE model, Public Sector, Strategic Training, Human Resource Development*

INTRODUCTION

Training is among the most critical activities to improve productivity in an organisation and give it a competitive advantage. Training is necessary for the workforce to acquire the knowledge, skills and attitudes needed to effectively carry out their jobs as greater knowledge and practice in tasks increase competency (Yawson & Greiman, 2023). Training can help

overcome the performance issues triggered by a lack of adequate job knowledge on the part of the staff. Globally, public sector institutions are increasingly under pressure to enhance efficiency, accountability, and service delivery amid rapid technological advancements, fiscal constraints, and growing citizen expectations (Mfaume, 2020). To meet these demands, strategic investment in employee capacity development has become imperative. Effective Training Needs Assessment (TNA) is a critical component of workforce development, as it ensures that training initiatives are aligned with actual performance gaps, organisational goals, and evolving service requirements (Ebru, 2020).

Training needs assessment is a critical component of the training system, as it provides essential data to determine who should undergo training, which training programmes are required, and how the outcomes of training programmes should be evaluated (Amegayibor, 2021). Inadequate or incomplete training can potentially exacerbate performance deficiencies in extreme cases (ILO, 2020). Therefore, initiating training without conducting a thorough needs analysis risks inefficacy and squandering organisational resources (Mahmud, 2019; Mugizi & Turyakira, 2021). In summary, a needs assessment is regarded as a fundamental prerequisite for effective training programmes.

Internationally recognised instructional design models such as ADDIE (Analysis, Design, Development, Implementation, and Evaluation) offer a structured framework for planning, delivering, and evaluating training interventions (Nduka & Ololube, 2020; Yeh & Tseng, 2019). However, despite widespread endorsement of TNA best practices, many public institutions continue to adopt ad hoc and reactive approaches to training, often driven by compliance, donor requirements, or budget availability rather than evidence-based workforce planning (URT,2021).

In Sub-Saharan Africa, public sector training remains a significant concern due to issues of poor planning, weak institutional capacity, and limited evaluation mechanisms (ILO, 2020). Many government training programs lack strategic orientation, resulting in misalignment between training content and public service delivery needs (Tessema et al., 2020). Moreover, the absence of comprehensive needs assessments often leads to resource wastage, low knowledge retention, and limited behavioural change among public servants (African Capacity Building Foundation (ACBF, 2020). Studies across African countries have consistently pointed

to the ineffectiveness of training programs that do not incorporate systematic analysis of performance gaps and contextual challenges (Ebru, 2020; Nduka & Ololube, 2020). The problem is exacerbated by reliance on external trainers, limited follow-up mechanisms, and a lack of alignment with national development agendas.

Tanzania's public sector has undergone several reform initiatives aimed at enhancing institutional performance, including the Public Service Reform Programme (PSRP) and the National Framework for Training and Development (URT, 2021). Despite these efforts, capacity gaps persist in various government agencies. Many training interventions are reportedly generic, donor-driven, or implemented without adequate follow-up, raising questions about their effectiveness in addressing actual performance deficits (Mfaume, 2020; Mgobela & Mtengeti,.2021). Literature indicates that many training programmes are driven by personal desires rather than identified needs, with TNA often conducted haphazardly or without due diligence (Othayman, 2022; Yawson & Greiman, 2023). Hayes (2022) contends that most organisations fail to implement TNA adequately, perceiving it as costly and time-consuming. Abdullah (2021) suggests that a comprehensive approach to TNA is rare, with organisations often resorting to less systematic procedures influenced by tradition, office politics, and internal/external pressures. Despite numerous studies on the relationship between training and employee efficiency, a gap regarding the impact of training phases on employee effectiveness still exists. Therefore, this study is set to address this gap by examining the benefits of TNA for organisations and elucidating its relationship with employee efficiency.

Training Needs Analysis (TNA) is widely acknowledged as the cornerstone of all training endeavours, which is essential for delivering appropriate and effective training that meets both individual and organisational needs while ensuring value for money (Huie, Cassaberry & Rivera, 2020; Ochieng & Hossain, 2021; Hayes, 2022). Over the past few decades, TNA approaches have evolved, with numerous models and methods proposed and implemented to aid professional development (Haryono, Supardi & Udin, 2020; Ebru, 2020). In today's rapidly changing environment, TNA must be adaptable to align with unplanned learning requirements (Abdullah, 2021; Hayes, 2022).

This challenge is especially concerning for a dynamic institution like NHIF, which must navigate frequent policy changes, digital transformation, and increasing stakeholder expectations. Without a structured TNA framework, NHIF risks misallocating training resources and failing to build the institutional capacity needed for effective service delivery.

The study is significant as it provides empirical insights into how the ADDIE model can be applied to improve strategic TNA practices within the Tanzanian public sector. Additionally, it contributes to the limited body of research on structured training frameworks in public institutions, particularly within health financing agencies. Moreover, it informs policy-makers and HR practitioners on the need to institutionalise TNA processes that are evidence-based, role-specific, and outcome-driven. By identifying practical gaps in the analysis, design, and evaluation of training at NHIF, the study helps to bridge the disconnect between training investments and organisational performance. The findings have policy relevance for other government institutions undergoing reforms and capacity-building efforts in Tanzania and similar contexts in the Global South.

Although there is substantial literature on public sector training and human resource development, empirical studies focusing on the strategic application of the ADDIE model to TNA in Tanzania's public institutions remain scarce. Most existing research tends to focus on general training challenges, such as funding and attendance, rather than the design, planning, and evaluation of training initiatives using structured models like ADDIE (Jeon & Song, 2020; Mensah, Kwame & Asefa, 2023; Ochieng & Hossain, 2021). Furthermore, while government frameworks advocate for systematic TNA, there is little evidence of how these guidelines are operationalised at the institutional level.

This study fills that gap by examining the extent to which NHIF applies the ADDIE model to guide its training needs assessment practices, providing quantitative and qualitative evidence on the effectiveness and limitations of current TNA processes, highlighting the disconnect between policy prescriptions and actual practice in training planning and evaluation, offering context-specific recommendations for improving the strategic alignment of training with institutional goals. Overall, effective TNA is essential for identifying training needs at various levels, ensuring

alignment with organisational objectives, and ultimately enhancing organisational performance. However, there remains a gap in understanding the impact of TNA effectiveness on employee efficiency, highlighting the need for further research in this area. This study aims to address this gap by examining the applicability of the ADDIE model in guiding TNA practices in public organisations, using NHIF as a case study.

MATERIALS AND METHODS
This study adopted a convergent parallel mixed-methods design, integrating both quantitative and qualitative approaches to gain a comprehensive understanding of Training Needs Assessment (TNA) practices at the National Health Insurance Fund (NHIF). The mixed-methods design was selected to allow triangulation of findings—quantitative data offered measurable patterns, while qualitative data provided contextual depth and meaning. The use of the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) as a theoretical framework further supported the integration of both data types in assessing strategic training processes at NHIF.

The research was conducted at NHIF's Headquarters in Dodoma, along with its four regional offices in Dodoma, Kinondoni, Ilala, and Temeke in Dar es Salaam. These locations were selected due to their significance as NHIF operational hubs and their representative employee populations. NHIF is a crucial government healthcare funding mechanism in Tanzania, established by Act of Parliament No.8 in 1999, dedicated to providing medical care services to its members through monthly contributions (NHIF, 2013). NHIF was chosen for its proactive approach to employee training and development, essential for addressing operational complexities such as increasing claims and membership, as well as evolving technologies requiring continuous skill updates.

The target population consisted of NHIF employees across various cadres, including: human resource officers, departmental heads, technical and administrative staff, and Employees who have participated in recent training programs (2020-23). This population was selected due to its direct involvement in training planning, implementation, and benefit, making them appropriate informants for assessing the effectiveness of TNA. To ensure representation across different departments and staff levels, a stratified random sampling technique was used. The population

was divided into strata based on job category (HR, claims, finance, ICT, etc.), and random samples were drawn proportionally from each stratum.

A total of 152 respondents were selected to participate in the quantitative survey. The sample size was determined using Yamane's formula (1967) for a known population size, with a 95% confidence level and a 5% margin of error. For the qualitative component, 12 key informants were purposively selected based on their roles, experience, and involvement in training processes at NHIF. These included: Senior HR officers, Training coordinators, Department heads, and Selected training beneficiaries. Purposive sampling allowed the selection of information-rich participants who could provide in-depth insights into the strategic application of the ADDIE model in training needs assessment and training planning.

To ensure accessibility and convenience, the questionnaire was distributed in both hardcopy and softcopy formats. The items included in the questionnaire were directly aligned with the study's objectives to maintain focus and relevance. To enhance the accuracy and interpretability of the findings, weighted mean analysis based on a Likert scale was employed to collect quantitative data. This method provided a more refined understanding of the degree of agreement or disagreement, rather than relying solely on frequency counts. The weighted mean approach is recognised for balancing variations in response intensity, mitigating the influence of outliers, and facilitating meaningful comparisons across different items (Kothari & Garg, 2019). This method was cost-effective, ensured anonymity, and was appropriate for literate respondents familiar with NHIF operations.

Qualitative data were collected through semi-structured interviews, allowing for flexibility in probing deeper into participants' experiences and opinions. An interview guide was developed based on the ADDIE model, covering how training needs are identified (Analysis), how training is designed and developed and how training is implemented and evaluated. Interviews were conducted face-to-face and digitally (where necessary), recorded with consent, and later transcribed for analysis. This method was chosen to explore underlying issues, challenges, and contextual realities that quantitative tools might overlook.

Quantitative data were analysed using Statistical Package for the Social Sciences (SPSS) version 26. Techniques used included Descriptive statistics (means, frequencies, and standard deviations), Pearson's correlation to examine relationships between ADDIE phases and employee performance and multiple regression analysis to determine the predictive power of ADDIE phases on training outcomes. These statistical tools provided both summary trends and inferential insights into the influence of training practices.

Qualitative data were analysed using thematic analysis. The process involved Transcription and familiarisation with the data, coding based on emerging patterns and ADDIE framework categories, identification of key themes and sub-themes and integration of direct quotations to support thematic findings. Thematic analysis was suitable for capturing recurring ideas and variations in perspectives across participants.

To ensure content validity, the questionnaire and interview guide were reviewed by academic experts in training and human resource development. A pilot study involving 10 NHIF staff was also conducted to assess the clarity and relevance of the tools. Expert validation and piloting enhanced the appropriateness and precision of the instruments in capturing the intended constructs.

The internal consistency of the quantitative instrument was assessed using Cronbach's Alpha, which yielded an acceptable value of $\alpha = 0.81$, indicating strong reliability. Reliability testing ensured that the tool consistently measured the intended variables across respondents.

To ensure ethical considerations, ethical clearance was obtained from NHIF through official channels. Informed consent was obtained from all participants, with full disclosure of the study's purpose, voluntary nature, and right to withdraw. Anonymity and confidentiality were ensured through the use of codes and secure data storage. Data use was strictly limited to academic and policy research purposes. Adhering to ethical standards ensured the protection of participant rights and promoted trust and openness during data collection.

RESULTS AND DISCUSSIONS
Presentation of Quantitative Findings

Table 1
Descriptive Statistics   *N=152*

Variable	Mean	Standard Deviation	Minimum	Maximum
Analysis	3.12	0.74	1.80	4.50
Design	3.05	0.79	1.60	4.40
Development	2.98	0.83	1.40	4.20
Implementation	2.87	0.81	1.50	4.00
Evaluation	3.01	0.76	1.70	4.30
Employee Performance	3.14	0.71	1.80	4.40

Source: Field Data (2023)

On a 5-point Likert scale, all ADDIE phases scored close to 3.0, indicating neutral to slightly low perceptions of effective implementation. The lowest mean score was in Implementation (M=2.87, SD=0.81), suggesting that even when training needs were identified, they were not fully translated into well-executed training programs.

Table 2
Pearson's Correlation Analysis

Variable	Employee Performance (r)	p-value
Analysis	0.441**	0.000
Design	0.428**	0.000
Development	0.395**	0.000
Implementation	0.371**	0.000
Evaluation	0.439**	0.000

Source: Field Data (2023)

Note: $p < 0.01$ indicates significance at the 99% confidence level.

While all phases show a moderate, positive, and significant correlation with employee performance, the coefficients are notably lower than those typically seen in effective training environments. This implies that although TNA has a theoretical and statistical link to performance, the actual level of practice is not strong enough to generate a higher impact.

Table 3
Multiple Regression Analysis
Model Summary

R	R²	Adjusted R²	Std. Error of Estimate
0.553	0.306	0.282	0.602

ANOVA

Source	SS	df	MS	F	p-value
Regression	14.136	5	2.827	7.801	0.000
Residual	31.912	146	0.219		
Total	46.048	151			

Coefficients

Predictor	β (Beta)	Std. Error	t	p-value
Constant	1.482	0.298	4.97	0.000
Analysis	0.184	0.085	2.165	0.032
Design	0.172	0.087	1.977	0.050
Development	0.158	0.091	1.736	0.085
Implementation	0.134	0.088	1.523	0.130
Evaluation	0.179	0.084	2.131	0.035

Source: Field Data (2023)

The model explains only 30.6% of the variance in employee performance ($R^2 = 0.306$), indicating that factors beyond the ADDIE-based TNA process influence a substantial portion of performance outcomes. Only the Analysis and Evaluation phases have significant predictive power ($p < 0.05$). Implementation and Development show no statistically significant effect, suggesting major weaknesses in translating identified needs into actionable and effective training programs.

The findings reveal that while TNA is statistically linked to employee performance, its practical application at NHIF is weak. Most phases scored close to neutral on the Likert scale, and the regression model shows a modest explanatory power. The low mean scores and moderate correlations indicate that the process is recognised as important in theory but insufficiently executed in practice, particularly in Implementation and Development, where gaps in follow-through are evident.

Presentations of Qualitative Findings
Qualitative data were collected through semi-structured interviews with 12 NHIF staff, including training officers, departmental heads, and employees who had participated in training programs. Many respondents expressed concerns over the ad hoc and informal nature of Training Needs Assessments (TNA) at NHIF. Instead of being data-driven or competency-based, TNA was reported to rely on managerial discretion, personal requests, or budget availability, rather than a systematic performance gap analysis. This resonated with some respondents,

> "The training nominations come from supervisors. Sometimes they just
> pick whoever is available or likely to benefit personally." (Interview 3,
> December 2023)

One of the HOD explicitly showed that TNA was minimally conducted as
expressed,

> "We do not conduct skills audits or performance reviews to determine
> training needs. It is just assumed that departments know what is
> required." (Interview 3, December 2023)

This lack of strategic alignment reflects a weak application of the
"Analysis" phase of the ADDIE model, which stresses the need to
diagnose gaps between existing competencies and desired outcomes
(Olufayo & Akinbo, 2021). The research findings demonstrated that
during the analysis phase, the training needs analysis (TNA) process
played a crucial role in pinpointing the disparity between the current and
desired competencies of NHIF employees. These findings underscored
the organisation's practice of delineating learning objectives and tailoring
training initiatives accordingly. Moreover, the assessment encompassed
the examination of the learning environment and the existing proficiency
levels of the learners.

At NHIF, it was observed that the identification of training needs was
predominantly overseen by the HR Department at the Headquarters, with
support from Heads of Department (HODs) across various sectors. HODs
conducted performance evaluations for their respective subordinates,
utilising the outcomes to ascertain the rationale and scope of the required
training interventions. Semi-annual (in December) and annual (in June)
individual performance appraisals were conducted to determine
performance gaps or issues, guiding the selection of suitable training
interventions. Subsequently, training plans were executed in alignment
with the identified needs. While the OPRAS report, a TNA methodology,
confirmed the conduct of TNAs, the report did not provide evidence of
the targeted training for employees who were identified with performance
gaps.

Interviews with supervisors, administrators, and employees were
instrumental in identifying areas of performance deficiency and
determining which skills necessitated enhancement. Additionally,
customer feedback, often manifested through complaints about service

delivery, served as a valuable resource for pinpointing performance shortcomings. These insights gleaned from customer complaints informed the formulation of training strategies aimed at rectifying the identified deficiencies and enhancing service quality. One of the HR Managers, during the interview with the researcher, clearly stated,

> "The selection procedures for training purposes are primarily dependent on the needs identified through Training Needs Analysis (TNA), customer complaints, and the availability of funds as outlined in our training policy. Employees are sponsored based on the requirements of the Fund's departments. When there is adequate funding for sponsorship, approvals are granted based on the timing of applications (Interview 3, December 2023)."

From the foregoing discussion, it appears that participants were partially chosen through a rigorous corporate Training Needs Analysis (TNA) process based on the identified skill gaps. The selection process was reported to occur annually. The analysis from the OPRAS report, using one of the TNA methods, suggested that TNA was indeed conducted. However, there was no evidence to confirm whether employees identified with performance gaps were subsequently selected for training. Instead, some employees seemed to be chosen on an ad hoc basis, as reported by some respondents.

The study also highlighted several strategies implemented to address training capacity issues. For instance, training officers and supervisors prioritised their training schedules. Mandatory training, such as induction or orientation sessions, took precedence, as recruits were required to undergo this basic training annually. Similarly, training that aligned with strategic organisational needs and specific position requirements was also prioritised. Finally, training and workshops aimed at enhancing individual competence, such as interpersonal skills, accounting and auditing, legal processes, and medicine/pharmacy services workshops, were given minimal priority.

Nevertheless, the findings indicated that some employees attended both long-term and short-term training, without being included in the employer's training calendar and plans, simply because they could sponsor themselves. Additionally, in some cases, the selection for training was based on employee requests or recommendations from Heads of Department (HODs). This implies that needs assessment was only

conducted for certain employees. Consequently, some employees were chosen for training without consideration of their skills or knowledge gaps, leading to numerous complaints citing corruption and favouritism as drivers in the training selection process. One of the respondents, for example, had this to say,

> "Here, the selection to attend training favours employees who are closely associated with the Human Resources (HR) Department and Heads of other Departments. It is noticeable that certain employees consistently attend short courses every year, while others are overlooked, and some are denied sponsorship altogether" (Interview 2, December 2023).

This suggests that the procedures for selecting employees for training were not fair enough, despite the good intentions of the training policy. This is because some employees were sponsored quite often, while others remained on the waiting list or were not considered at all. The respondents were also asked to provide their views on how often the organisation conducts TNA. The findings reveal that 64 per cent of participants reported that their organisation conducts TNA regularly every two to three years. However, conducting TNA regularly does not always reflect the effectiveness of conducting a TNA process.

The researcher believes that this view of managers responsible for training is not based solely on the annual plan for training, but also on the needs analysis process. It is not necessary to conduct TNA every year, but it must be done when the organisation needs it. This demonstrates that the purpose of TNA is to ensure that the objectives of each type of training are compatible with the strategic objectives of the organisation. Nevertheless, the practice of TNA at NHIF was limited due to financial constraints, inadequate support from top management, including some managers' indifference towards training, and a shortage of skilled HR personnel for conducting TNAs, among other reasons. Consequently, some employees received training without consideration of their performance gaps, resulting in training that was somewhat irrelevant and had little impact on both their performance and organisational training objectives.

Some HR Officers were asked for their views on "When is training provided for employees?" to establish the reasons behind the training. The supervisors reported that "when employees are newly recruited" (43%) is the most common reason. This is followed by "*on new equipment*" (17%)

and then by "*the creation of new jobs*" (11%). Other reasons reported include; "on new working methods" (11%), "*based on the results of training needs analysis*" (11%); "*when requested by top management*" (10%); "when performance appraisal assessment shows some gap" (7%); and "*when customers complained about particular services*" (7%) in that order.

These findings provide a reasonably clear picture that supervisors were not qualified and not able to analyse training needs; therefore, they cover the required numbers for training annually through a list of new employees or candidates running new equipment or due to changes in working systems or methods. Moreover, line managers were dependent upon discussions and direct observation when nominating their subordinates for training courses. They do not need to use analytic techniques or the link between the needs of individuals and the needs of the organisation. This is another indication of the lack of experience, knowledge, and skills in the identification of needs. In principle, training needs ought to be understood and catered for at all three levels; and an ideal training design addresses the varying needs of the employees, the tasks to be performed, and the overarching goals and objectives of the organisation.

Therefore, it could be argued that, in general, the officials identifying training needs in NHIF lacked experience in the field of TNA. This finding was supported by findings from Senior Managers about TNA personnel in their organisation, who reported that their organisation lacked well-qualified, experienced TNA employees who need to be specialised and know how to conduct effective training programmes. Their comments indicated a lack of expertise in carrying out the training needs analysis process, in identifying training needs in the current situation based on personal experience for line supervisors, as well as the views of workers in the selection of training programmes that suit them. This finding, namely, the lack of qualified and experienced staff, has harmed training and developing employees, as found by many other researchers and authors, including (Garavan, Carbery, & Rock, 2022; ILO,2020; Ebru, 2020; and Branch, 2021).

The proposal to implement the ADDIE model presents a promising solution to these challenges. By integrating systematic feedback loops and evaluation stages throughout the training process, NHIF can improve the

quality and relevance of its training initiatives. This approach not only ensures that instructional materials meet design specifications but also enables ongoing refinement to optimise training outcomes. Given that the ADDIE model involves creating a needs analysis report as the foundation for the instructional design process, the model aids in identifying the audience, training objectives, and project constraints. Moreover, the model facilitates the creation of a project plan and the determination of the necessary resources to complete the project (Almelhi, 2021). Therefore, the model can effectively guide the training needs assessment and training process at NHIF; it can also ensure that individuals with performance deficiencies are identified and provided with relevant training to enhance their knowledge, skills, and competencies.

Discussion of Findings

The quantitative results confirm that the Analysis phase is central to effective training outcomes, which aligns with qualitative narratives describing the need for structured performance gap analysis. However, despite its strategic importance, the actual practice at NHIF reflects inconsistencies, suggesting a disconnect between policy and execution.

Similarly, while Design and Development phases show moderate positive correlations with outcomes, qualitative evidence exposes content and contextual gaps. This suggests that NHIF needs to adopt a more learner-centred and role-specific design framework for training. Analysis Phase – Strategic Disconnect in Needs Assessment. These findings resonate with the findings by Othayman (2022), who argued that if clear objectives are not set in a training programme, it is less likely to succeed. The findings of this study have shown that the majority of training programmes seem to be based on the programme creator's desires and beliefs rather than actual employee training needs. This finding is consistent with Karanja and Anyieni (2022), who noted that many training programmes are based on personal wants rather than identified needs, and that TNA is based on trial and error and conducted unfairly.

The findings show that NHIF lacks a formal, organisation-wide TNA framework. This is a critical failure point within the Analysis phase of the ADDIE model, which serves as the foundation for all subsequent training interventions. According to Smith and Brown (2022), effective TNAs must be systematic, involving organisational analysis, task analysis, and person analysis. However, NHIF's reliance on intuition and non-

standardised nomination processes results in training that may not address fundamental skill gaps.

This is echoed by Tessema et al. (2020), who found similar issues in East African public institutions where training is often driven by available funding rather than strategic workforce planning. In this regard, NHIF's approach lacks alignment with Strategic Human Resource Management (SHRM) principles, which advocate that all HR functions, including training, should support the strategic direction of the organisation (URT, 2020). The qualitative data indicate a weak application of the Design and Development phases of the ADDIE model. These stages require careful planning of content, selection of delivery methods, and customisation to the learners' needs and context (Othayman, 2022). The absence of defined learning outcomes or competency frameworks results in low engagement and transfer of learning.

This reflects findings by Smith (2024), who argues that training effectiveness in the public sector is compromised when training content is overly generic or does not reflect contextual realities. In NHIF's case, heavy dependence on outsourced facilitators with minimal institutional knowledge further weakens the learning process. The ADDIE model emphasises the importance of involving subject matter experts and internal stakeholders in the design process, a component largely absents at NHIF.

Finally, although Implementation and Evaluation were statistically significant predictors, they had the lowest explanatory power. This reflects the perception among staff that post-training evaluation is weak or non-existent, a common issue in many public sector institutions across Africa (Kitone, 2022; Mosha & Milanzi, 2020).

Globally, studies (Doe, 2024; Gaite, Asiimwe, Emurugat, & Mugenyi, 2023) emphasise the importance of strategic TNA in aligning workforce competencies with institutional goals. In Africa, weaknesses in needs assessment and evaluation are cited as significant obstacles to training effectiveness (Ampofo, 2020; ILO, 2016).

In Tanzania's public sector context, this study confirms prior observations by URT (2021) that training tends to be budget-driven rather than needs-driven. The application of the ADDIE model shows potential but is not

fully institutionalised at NHIF. The Implementation and Evaluation phases also show serious gaps. Despite regular training delivery, qualitative data suggest that participants return to their roles with limited support or monitoring, making the sustainability of training impact questionable. Furthermore, post-training evaluation is not conducted rigorously, violating the ADDIE model's expectation for formative (during training) and summative (after training) evaluations (Branch, 2021; Nduka& Ololube, 2020; Molenda, 2015).

These findings are consistent with Kirkpatrick's Four-Level Model (1996), which emphasises the importance of evaluating not only reactions and learning, but also behaviour change and results. In NHIF, training evaluations are limited to reaction-level assessments and are not systematically used for performance improvement.

Scholars like Almelhi (2021) and Phillips & Phillips (2003) emphasise the need for ROI-based evaluation and follow-up coaching as part of effective training implementation practices, which are missing at NHIF due to ineffective training needs analysis.

The qualitative findings, interpreted through the lens of the ADDIE model and contemporary training literature, suggest that NHIF's training system is partially aligned with strategic goals but lacks the rigour, structure, and feedback loops required for transformative capacity development. The Analysis phase is the most underdeveloped yet foundational, while Design, Development, and Evaluation suffer from poor contextualization and lack of systematic monitoring.

CONCLUSIONS
The findings from the study highlight several key issues in the Training Needs Assessment (TNA) process at NHIF and suggest that the ADDIE model could provide a structured framework to address these challenges. The study reveals that while TNA was conducted, there was a lack of evidence showing how employees identified with performance gaps were selected for training. Thus, the ADDIE model's needs analysis phase can help address this problem by systematically identifying performance gaps and determining the specific training needs of employees based on the identified gaps. Furthermore, the study concludes that the utilisation of customer complaints is a valuable source of information for identifying performance deficiencies. The ADDIE model's needs analysis phase can

incorporate this feedback by including methods to gather and analyse customer complaints as part of the needs assessment process.

Implication of the Findings

Therefore, the systematic approach provided by the ADDIE model can help overcome constraints on resources and managerial support, ultimately leading to more effective training outcomes. By applying the ADDIE model to guide the TNA process, NHIF can ensure that training initiatives are strategically aligned with organisational objectives, efficient utilisation of resources, and that employees receive training that addresses their specific performance needs.

NHIF and similar public institutions must shift from reactive, compliance-oriented training to strategic, performance-based training that is integrated into broader organisational development efforts. This requires a cultural shift in how training is perceived from a cost to an investment in institutional excellence.

The study contributes to the growing body of literature on strategic human resource development in the public sector by demonstrating how the ADDIE model can serve as a diagnostic and planning tool for aligning training with institutional performance. It also highlights the importance of contextual adaptation of global instructional design models in developing country settings.

NHIF should adopt a formal TNA process anchored in the ADDIE model, beginning with routine performance gap analyses, skills audits, and stakeholder consultations. This will ensure that training is proactive, data-driven, and aligned with strategic priorities.

Training programs should be developed based on specific job roles and institutional contexts. Greater involvement of internal subject matter experts during the Design and Development phases can enhance the relevance and effectiveness of content delivery.

NHIF should implement a multi-level evaluation system, drawing from Kirkpatrick's model to assess training impact at the levels of learning, behaviour change, and organisational performance. Follow-up coaching and on-the-job assessments should be integrated.

NHIF should invest in digital tools and HR analytics systems to automate needs assessments, track training participation, and generate real-time insights on training effectiveness.

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