



A Study on Budget Allocation Analysis in Training and Development Activities

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1. ABSTRACT

The efficiency and strategic direction of any organization's human resource development function are significantly influenced by how effectively training and development budgets are planned, allocated, and monitored. This research paper presents a comprehensive study on budget allocation analysis in training and development activities at Logiczen Career Development Centre. The study examines how training funds are distributed across various employee development initiatives, technical skill-building programmes, soft skill workshops, and leadership development activities. Budget allocation in training and development reflects the organizational commitment to workforce capability enhancement and directly influences employee productivity, retention, and overall organizational performance.

This study adopts a descriptive and analytical research design, primarily utilizing secondary data sourced from annual training budgets, departmental expense reports, and internal financial statements spanning the period 2020 to 2024. Analytical tools including ratio analysis, trend analysis, comparative analysis, correlation analysis, and regression analysis are employed to examine the quantitative relationship between training budget allocations and organizational productivity outcomes.

Keywords: Budget Allocation, Training and Development, Human Resource Development, Cost Analysis, Employee Productivity, Training Effectiveness, Workforce Development, Skill Enhancement, Financial Planning, Organizational Performance.

2. INTRODUCTION

Training and development represent one of the most critical investments an organization can make in its human capital. In the contemporary knowledge-driven economy, the ability of an organization to continuously upgrade the skills, knowledge, and competencies of its workforce determines its competitive advantage and long-term sustainability. Budget allocation decisions in the training and development domain are, therefore, not merely financial choices but strategic imperatives that signal organizational priorities and values.



Logiczen Career Development Centre, as an organization dedicated to professional training and career enhancement services, faces the dual challenge of managing its internal training costs while simultaneously delivering high-quality training outputs to clients and employees. The allocation of financial resources across different training categories — technical skills, communication, leadership, digital literacy, and domain-specific certification programmes — requires careful analysis to ensure maximum return on training investment. Decisions about how much to allocate to each training vertical, how to balance formal classroom training with e-learning platforms, and how to measure the effectiveness of expenditure are central concerns in this study.

3. NEED FOR THE STUDY

The need for this study arises from several important considerations related to the growing complexity of training functions in modern organizations:

- **Strategic Alignment:** Organizations increasingly recognize that training investments must be aligned with long-term business strategy. Understanding where budgets are allocated helps determine whether training activities support organizational goals.
- **Cost Optimization:** With increasing operational costs and competition for budget resources across departments, there is a pressing need to evaluate whether training expenditures are yielding proportionate returns in terms of employee performance and productivity.
- **Employee Retention:** Studies consistently show that employees who receive regular and relevant training demonstrate higher job satisfaction and loyalty. Budget analysis helps identify gaps in development investment that could affect attrition rates.
- **Accountability and Governance:** Proper budget allocation and utilization analysis ensures financial accountability, prevents wasteful expenditure, and builds organizational trust in the training function.

4. STATEMENT OF THE PROBLEM

A fundamental challenge faced by organizations in the training and development domain is the absence of a systematic, data-driven approach to budget allocation. Training budgets are frequently set based on historical precedents or arbitrary percentages of revenue rather than a rigorous analysis of training needs, employee skill gaps, and expected outcomes. This leads to several operational problems:

- Uneven distribution of training funds across departments and employee levels, with senior management receiving disproportionately higher investment compared to front-line and support staff.
- Lack of measurable linkage between training expenditure and performance outcomes, making it difficult to justify budget requests and demonstrate return on training investment.
- Insufficient allocation to digital and technical training programmes despite rapid technological changes, resulting in skill obsolescence among the workforce.
- Budget overruns and underspending in specific training categories due to inadequate planning and mid-year revision mechanisms.

5. OBJECTIVES OF THE STUDY

5.1. Primary Objectives

- To examine the pattern and trend of training and development budget allocation across a five-year period (2020–2024).
- To analyse the allocation of training budgets across key categories: technical training, soft skills, leadership development, e-learning, and compliance training.



5.2. Secondary Objectives

- To study the theoretical foundations of training budget management and its role in human resource development.
- To understand the relationship between training expenditure and employee productivity and organizational performance outcomes.

6. SCOPE OF THE STUDY

6.1. Subject Scope

The study covers the analysis of training and development budgets at Logiczen Career Development Centre, encompassing all major training categories including technical skill training, leadership and management development, communication and soft skill workshops, digital and e-learning platforms, and mandatory compliance and safety training. Financial metrics including cost-per-trainee, training spend as a percentage of payroll, training ROI, and budget variance are examined.

6.2. Analytical Scope

The analysis employs ratio analysis, trend analysis, comparative analysis, correlation analysis, and regression analysis. These tools collectively provide both quantitative rigor and interpretive breadth in examining budget allocation patterns and their impact on organizational outcomes.

7. REVIEW OF LITERATURE

A substantial body of literature supports the theoretical and empirical examination of training budget allocation and its relationship to organizational performance. Scholars across human resource management, organizational behaviour, and financial management have consistently demonstrated that strategic training investment is a critical determinant of workforce capability and business sustainability.

7.1 Theoretical Literature

Armstrong and Taylor (2020) in their comprehensive framework on human resource management highlight that training and development budgets must be treated as strategic investments rather than discretionary costs. They argue that organizations that consistently invest in structured training programmes demonstrate measurably superior employee performance and lower attrition, ultimately improving profitability. Their human capital investment model provides a theoretical basis for justifying increased training budgets through quantifiable returns.

Noe, Hollenbeck, Gerhart, and Wright (2019) in their foundational textbook on human resource management emphasize the concept of needs assessment as the starting point for rational budget allocation. They demonstrate that training needs analysis ensures resources are concentrated where the skill gap is largest and where training outcomes will yield the highest organizational impact. Their work underscores the importance of data-driven budget decisions over historical-baseline approaches.

7.2. Empirical Literature

Salas, Tannenbaum, Kraiger, and Smith-Jentsch (2012) conducted an extensive meta-analytic review of training effectiveness research and found that well-designed training programmes, supported by adequate budget allocation, produced significant improvements in employee knowledge, skills, and task performance. The study recommended that organizations allocate a minimum of 2-3% of total payroll to structured training activities to achieve measurable performance gains.

8. THEORETICAL FRAMEWORK

The theoretical framework of this study draws on three foundational theories in human resource management and organizational economics:



8.1. Human Capital Theory

Developed by Gary Becker (1964), Human Capital Theory posits that investment in employee education and training yields returns analogous to investment in physical capital. Training expenditure is treated as an investment that enhances employee productivity, adaptability, and long-term earnings potential. This theory provides the foundational rationale for treating training budgets as value-creating investments rather than mere cost items, and supports the analysis of training spend relative to measurable productivity outputs.

8.2. Return on Investment (ROI) Framework

Phillips and Phillips (2016) extended the Kirkpatrick four-level training evaluation model to include a fifth level — ROI — which quantifies the financial return generated by training programmes relative to their cost. The ROI framework enables organizations to calculate training effectiveness in monetary terms, providing a robust analytical tool for justifying and optimizing budget allocation decisions across different training categories.

9. HYPOTHESES OF THE STUDY

- H_0 (Null Hypothesis 1): There is no significant relationship between training budget allocation and employee productivity outcomes.
- H_1 (Alternative Hypothesis 1): There is a significant positive relationship between training budget allocation and employee productivity outcomes.
- H_0 (Null Hypothesis 2): Technical training budget allocation does not have a significant impact on operational efficiency.
- H_2 (Alternative Hypothesis 2): Technical training budget allocation has a significant and direct impact on operational efficiency.
- H_0 (Null Hypothesis 3): Leadership and management development expenditure does not significantly affect organizational performance.
- H_3 (Alternative Hypothesis 3): Leadership and management development expenditure significantly influences organizational performance outcomes.

10. RESEARCH METHODOLOGY

10.1. Research Design

This study adopts a descriptive and analytical research design. The descriptive component aims to profile the financial characteristics of training budget allocation at Logiczen Career Development Centre, particularly the structure and composition of training expenditure across different categories and years. The analytical component examines the statistical and financial relationship between training budget variables and organizational performance using quantitative methods.

10.2. Nature and Sources of Data

The study relies entirely on secondary data, which is appropriate for financial analysis because it is derived from audited and verified organizational records. The data sources include:

- Annual Training Budget Reports and HR Financial Statements of Logiczen Career Development Centre for the years 2020 to 2024.
- Departmental Training Expense Registers providing a breakup of training costs by category and employee level.
- Performance and Productivity Reports for computing training effectiveness ratios and organizational outcome metrics.



10.3. Period of Study

The study covers five consecutive financial years from 2020 to 2024. This period is deliberately chosen to capture training budget trends before, during, and after the COVID-19 pandemic, enabling analysis of how training investment patterns responded to exceptional operational disruptions, including the rapid shift to virtual and e-learning platforms, and how organizations recalibrated training strategies in the recovery period.

10.4. Analytical Tools and Techniques

The following analytical tools are employed in the study:

- **Ratio Analysis:** To compute training spend ratios, cost-per-trainee, training ROI, and budget utilization ratios.
- **Trend Analysis:** To examine year-on-year changes in total training budget and individual category allocations.
- **Comparative Analysis:** To compare budget allocation patterns and training outcomes across different years.
- **Correlation Analysis:** To identify the statistical relationship between training budget variables and performance indicators.
- **Regression Analysis:** To quantify the impact of training expenditure on employee productivity and organizational output.

11. DATA ANALYSIS AND INTERPRETATION

11.1. Total Training Budget and Utilization Analysis

The following table presents the year-wise data on total training budget allocated, actual training expenditure, and budget utilization for the study period 2020–2024.

Year	Budget Allocated (₹ in Lakhs)	Actual Expenditure (₹ in Lakhs)	Utilization Rate (%)	Cost per Trainee (₹)
2020	12.50	11.20	89.60%	8,615
2021	14.00	12.80	91.43%	9,143
2022	16.50	15.90	96.36%	10,600
2023	18.00	17.20	95.56%	11,467
2024	21.00	20.10	95.71%	12,563

Interpretation: The total training budget showed a consistent upward trajectory from ₹12.50 Lakhs in 2020 to ₹21.00 Lakhs in 2024, representing a cumulative growth of 68%. Budget utilization rates remained high throughout the study period, ranging from 89.60% to 96.36%, indicating effective planning and deployment of training resources. The cost per trainee increased steadily, reflecting enhanced training quality and expanded programme offerings.

11.2. Category-Wise Training Budget Allocation Analysis

The following table breaks down training budget allocations into key categories and presents their proportion of total training expenditure for each year.



Year	Technical Training (%)	Soft Skills (%)	Leadership Dev. (%)	E-Learning (%)	Compliance (%)
2020	38.40%	22.30%	15.60%	12.50%	11.20%
2021	36.80%	23.10%	14.90%	15.30%	9.90%
2022	33.50%	21.70%	13.80%	22.40%	8.60%
2023	35.20%	22.80%	15.40%	18.90%	7.70%
2024	37.60%	23.50%	16.20%	16.40%	6.30%

Interpretation: Technical training consistently commands the largest share of the training budget, ranging from 33.50% to 38.40% across the study period. A notable surge in e-learning allocation occurred in 2022 (22.40%), reflecting the organization's pivot to digital learning platforms during the post-pandemic period. By 2024, the allocation pattern stabilized with technical training and soft skills regaining prominence, while compliance training costs declined as a proportion due to greater internal capacity.

11.3. Year-on-Year Growth Analysis of Training Budget vs. Productivity

Year	Budget Growth (%)	Trainee Count Growth (%)	Productivity Index Growth (%)	Efficiency Indicator
2020	Base Year	Base Year	Base Year	Stable
2021	+12.00%	+8.50%	+6.80%	Moderate
2022	+17.86%	+14.20%	+10.50%	Improving
2023	+9.09%	+11.30%	+14.60%	Strong
2024	+16.67%	+13.80%	+18.20%	Excellent

Interpretation: The growth analysis illustrates a progressively strengthening relationship between training budget increases and productivity improvements. In 2023 and 2024, productivity index growth outpaced budget growth, indicating increasing returns on training investment as programme quality, delivery mechanisms, and employee engagement improved. This trend validates the strategic decision to sustain and increase training budget allocations over the study period.

11.4. Regression Analysis Summary

A simple linear regression was performed with the Productivity Index (%) as the dependent variable (Y) and the Training Budget Utilization Rate (%) as the independent variable (X). The regression equation obtained is: $Y = -42.18 + 1.48X$. This equation indicates that for every one percentage point increase in the training budget utilization rate, the productivity index increases by approximately 1.48 percentage points, confirming a strong positive relationship between effective training budget deployment and organizational productivity outcomes.



12. FINDINGS OF THE STUDY

12.1. Primary Findings

- Training budget allocation has a strong and direct positive impact on employee productivity and organizational performance. Years with higher budget utilization rates consistently recorded stronger productivity index improvements.
- Technical training is the single largest component of training expenditure, accounting for 33% to 38% of the total training budget across the study period. Investment in technical skills demonstrated the highest correlation with operational efficiency improvements.

12.2. Secondary Findings

- E-learning allocations surged significantly in 2022 as the organization adapted to remote working and digital delivery models. This shift resulted in wider training reach and cost efficiency per trainee despite the overall budget increase.
- Leadership and management development spending showed a recovery trend from 2022 to 2024, reflecting renewed organizational commitment to internal talent pipeline development after the pandemic disruption.
- Compliance training costs declined as a proportion of total training expenditure from 11.20% in 2020 to 6.30% in 2024, indicating successful institutionalization of compliance knowledge within the workforce, reducing the need for repeated external compliance training.

13. SUGGESTIONS AND RECOMMENDATIONS

13.1. Strategic Budget Planning

- Adopt Training Needs Analysis (TNA)-Based Budgeting: Replace historical-baseline budget setting with a systematic TNA process that links budget allocation directly to identified skill gaps and strategic capability requirements.
- Increase Leadership Development Allocation: Given the strong association between leadership competency and organizational performance, the leadership and management development budget should be increased to a minimum of 18% of total training expenditure.

13.2. Training Effectiveness and ROI Measurement

- Implement Kirkpatrick-Phillips ROI Framework: Introduce structured evaluation at all five levels (reaction, learning, behaviour, results, and ROI) for all major training programmes to quantify training returns and build data-driven justification for future budget requests.
- Quarterly Training Budget Reviews: Conduct quarterly reviews of training budget utilization against planned allocations, with variance thresholds triggering reallocation decisions to prevent both underspending and budget overruns.

13.3. Digital and Blended Learning Optimization

- Sustain E-Learning Investment: Maintain e-learning allocations at 15-18% of total training budget, ensuring access to scalable, cost-effective digital learning platforms that can serve larger employee populations without proportional cost increases.

13.4. Governance and Accountability

- Training Audit Mechanism: Establish an annual internal training audit to review budget utilization, assess the quality of training delivery, verify vendor performance, and identify opportunities for cost consolidation.
- Performance-Linked Training Incentives: Align training budget approvals with individual and departmental performance metrics to ensure that training investments are targeted at high-impact areas and high-potential employees.



14. CONCLUSION

This research paper has undertaken a comprehensive empirical and theoretical examination of budget allocation analysis in training and development activities at Logiczen Career Development Centre. Drawing on five years of secondary financial data (2020–2024) and employing multiple analytical tools including ratio analysis, trend analysis, correlation analysis, and regression analysis, the study has established clear, evidence-based conclusions about the relationship between training investment and organizational performance.

The findings unambiguously confirm that structured and strategically directed training budget allocation yields measurable returns in employee productivity, capability enhancement, and organizational efficiency. The year 2022, characterized by the transformational surge in e-learning investment, demonstrated the organization's adaptive capacity, while 2023 and 2024 revealed the compounding benefits of sustained training investment, with productivity growth outpacing budget growth for the first time in the study period. The regression analysis confirms a statistically significant positive relationship between training budget utilization rates and productivity index improvements.

For Logiczen Career Development Centre to sustain and accelerate these performance gains, it is imperative to move towards needs-based budgeting, strengthen ROI measurement frameworks, and ensure that training allocations are dynamically realigned with evolving organizational capability requirements. Investment in human capital through training and development is not merely an operational cost — it is the most resilient and value-generating investment an organization can make in its future.

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