INFORMATICS JOURNALS

12

SHRI-LEKH (Multi-disciplinary Research Journal) Vol 2(1), June 2026, p. 12-37

Online ISSN: 3139-5694
DOI:10.18311/SHRI-LEKH/2026/v2i1/53019

Cost–Skill Nexus: A Theoretical and Empirical Study on the Impact of Employee Training Investment on Skill Development in MSMEs of Nagpur District

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Abstract

Employee training is universally recognised as one of the most strategic levers for building sustainable organisational competence. For Micro, Small, and Medium Enterprises (MSMEs), particularly within a developing economy such as India, the cost of employee training carries dual significance—it is both an investment in human capital and a constraint on scarce financial resources. This paper presents the theoretical foundation of the Cost–Skill Nexus, a conceptual model that interprets how training expenditure translates into skill enhancement, productivity, and sustainable competitiveness among employees of MSMEs in the Nagpur District. By examining major theories of learning, human capital development, and behavioural economics, the study builds a narrative framework that links financial commitment to measurable skill outcomes.

Keywords: Employee Training, Human Capital, MSMEs, Nagpur District, Skill Development, Training Cost

INTRODUCTION

Employee training has evolved from a traditional administrative function to a vital strategic component of human resource management. In the current knowledge-driven economy, organisations increasingly realise that sustained growth depends less on tangible assets and more on the continuous learning and adaptation of their human resources. MSMEs, which constitute the backbone of India's industrial economy, face unique pressures to balance limited budgets with the need to maintain competitive skills among their workforce.

Training programs serve multiple roles: They correct performance deficiencies, build future-oriented competencies, and align employee capabilities with organisational objectives. However, the cost associated with such programs is often viewed ambivalently. On one hand, training cost is an unavoidable expenditure; on the other, it represents a long-term investment expected to yield improved performance, reduced turnover, and innovation. The "Cost–Skill Nexus" thus captures this duality—understanding how each unit of training investment contributes to measurable skill improvement within an MSME context.

The Nagpur District provides a fertile setting for this inquiry. Its MSME landscape comprises diverse industrial clusters—engineering, textiles, food processing, and service-based enterprises—each struggling with constrained finances yet needing to enhance human capital to compete regionally and nationally.

Conceptual Background

The conceptual base of this study rests upon three fundamental constructs: training cost, employee skill development, and organisational performance.

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- *Training Cost* refers to the total direct and indirect expenditure involved in planning, designing, implementing, and evaluating training initiatives. It encompasses trainer remuneration, materials, time lost during training sessions, travel, and technology costs.

- *Employee Skill Development* denotes the systematic improvement of employees' technical, behavioural, and cognitive capabilities through planned learning interventions.

- *Organisational Performance* reflects outcomes such as productivity, quality, innovation, and profitability that can be partially attributed to enhanced employee competence.

The relationship among these constructs is multidimensional. From a Resource-Based View (RBV), the unique combination of skills and knowledge within an organisation forms a source of sustained competitive advantage. However, generating such intangible resources demands measurable financial input.

The key proposition of the Cost–Skill Nexus is that investment in training costs directly influences skill acquisition, and the magnitude of that influence is moderated by contextual variables such as firm size, industry type, and management orientation. This perspective underscores the balance MSMEs must achieve between short-term cost efficiency and long-term human capital growth.

Training and Development: Theoretical Perspectives

Training and development theories have evolved significantly over the past century. Early models focused on the transmission of knowledge and task-specific instruction, while contemporary frameworks emphasise learning as a continuous, dynamic process intertwined with motivation and self-efficacy.

Behavioural Learning Theory

Behavioural theorists argue that learning occurs when an employee's behaviour is reinforced through repetition and reward. In training contexts, this translates into structured sessions, measurable outcomes, and feedback systems. For MSMEs, behavioural approaches offer simplicity and clarity, making them practical for shop-floor training and technical instruction. However, such models may not fully address the cognitive or emotional dimensions of learning that influence long-term skill retention.

Cognitive Learning Theory

Cognitive perspectives view learning as an active process where individuals internalise and interpret information. Here, the emphasis is on understanding rather than mere performance. In MSMEs, cognitive-oriented programs encourage employees to think critically about their roles, integrate knowledge across functions, and innovate within limited resources.

Human Capital Theory

The Human Capital Theory posits that education and training are investments that enhance the productivity and earning potential of individuals. When enterprises allocate funds to employee training, they effectively build intangible capital that contributes to organisational competitiveness. Although the theory provides a strong justification for training expenditure, its application in MSMEs is constrained by financial limitations and short-term profit motives.

Social Learning Theory

According to Social Learning Theory, employees learn not only through direct instruction but also through observation, imitation, and modelling. MSME environments, characterised by close interpersonal relationships, make social learning particularly relevant. Informal learning—through mentoring, peer observation, or collaborative work—can supplement formal training without incurring high costs.

Experiential Learning Theory

This theory emphasises learning through experience, reflection, and application. For MSMEs, experiential learning fits naturally with their operational flexibility. On-the-job training, rotational assignments, and task-based problem-solving allow employees to acquire skills contextually and immediately apply them to real problems.

Andragogy and Adult Learning Principles

Adult learners differ from children in their need for autonomy, relevance, and practical application. Training programs in MSMEs must align with these principles, ensuring that employees perceive learning as directly beneficial to their work performance. When training connects to real tasks, employees are more likely to engage actively and transfer new skills effectively.

The Cost–Skill Linkage in Human Capital Theory

The Cost–Skill Nexus draws heavily from the human capital paradigm. In this framework, training expenditure is seen as analogous to physical capital investment—incurring short-term costs for long-term gains. The key question is not whether training has value, but how much value is derived per unit of cost.

The Investment Logic

For MSMEs, financial capital is limited, so training expenditures must yield visible results. Cost–benefit analysis becomes an essential managerial tool, comparing the marginal gains in productivity or skill proficiency with the total cost incurred. When training is planned strategically, the return on investment manifests through improved quality, reduced errors, higher motivation, and lower attrition.

Opportunity Costs of Training

Training requires employees to step away from production, temporarily reducing output. The lost productivity during training constitutes an implicit cost often ignored in accounting systems. MSME owners must evaluate both explicit and implicit costs to understand the true financial impact.

Measuring Skill Gains

Skill development is inherently intangible. Traditional financial metrics cannot easily capture competencies such as teamwork, problem-solving, or adaptability. Theoretical frameworks suggest using proxy indicators—such as reduced defect rates, shorter learning curves, or improved customer feedback—to translate skills into measurable outcomes.

The Learning Curve Effect

As employees acquire skills, their efficiency improves exponentially. The learning curve theory indicates that initial investments may appear costly, but as learning consolidates, the unit cost of output declines. For MSMEs, understanding this dynamic helps justify initial training expenses.

Psychological Contract and Retention

Employees who perceive that their organisation invests in their growth tend to reciprocate with loyalty and commitment. This "psychological contract" reduces turnover costs and fosters a learning culture. Thus, the cost of training indirectly enhances organisational stability, which in turn supports continuous skill development.

Employee Skill Development in MSMEs

Importance of Skill Development

Skill development is the backbone of industrial productivity. MSMEs often operate in sectors requiring hands-on technical expertise, adaptability, and innovation. Employees with enhanced skills contribute not only to higher efficiency but also to better quality control and customer satisfaction.

Skill Gaps and Structural Challenges

Many MSMEs in Nagpur District report persistent skill gaps arising from limited access to formal training institutions, inadequate training budgets, and rapid technological change. Informal sector employment further compounds this problem, as workers rarely receive structured learning opportunities.

Role of Government and Industry Support

Government initiatives such as the Skill India Mission and MSME Development Institutes provide subsidised training and financial incentives. However, awareness and utilisation of these schemes remain low at the district level. The challenge lies in translating national policy frameworks into actionable local programs tailored to MSME realities.

The Role of Technology in Skill Enhancement

Digital tools and e-learning platforms can significantly reduce training costs while improving accessibility. For instance, online modules and simulation-based training allow MSMEs to deliver consistent content without geographical constraints. The adoption of low-cost digital learning solutions is emerging as a transformative factor in the cost–skilled equation.

Informal and Non-Formal Learning

In many small enterprises, learning occurs informally through job rotation, observation, and mentorship. Such experiential modes are cost-effective and culturally embedded. Recognising and formalising informal learning can enhance skill measurement and integration with organisational objectives.

Challenges and Barriers in Training Investments

Despite the strategic importance of training, MSMEs in Nagpur District encounter significant obstacles in allocating and managing training budgets effectively. These challenges stem from structural, financial, behavioural, and institutional factors that often constrain systematic skill development.

Financial Constraints

Most MSMEs operate on narrow profit margins, and training is frequently perceived as a discretionary cost rather than a developmental investment. Limited access to credit and the absence of dedicated human resource departments exacerbate the difficulty of sustaining long-term training programs. Consequently, many small enterprises adopt a short-term survival orientation that deprioritises employee learning.

Managerial Perceptions and Cultural Barriers

In many owner-managed MSMEs, entrepreneurs themselves lack formal exposure to modern management techniques. This can result in skepticism toward formal training or a preference for traditional, experience-based instruction. Such mindsets create a psychological barrier where training is viewed as non-essential or even risky if employees leave after becoming skilled.

Employee Turnover and Mobility

High labour mobility in small enterprises creates the classic "poaching problem": firms that invest in training risk losing their employees to competitors offering slightly higher wages. This deters investment in training, perpetuating a low-skill equilibrium that limits productivity growth.

Lack of Institutional Support

Although government agencies provide training assistance, many MSMEs find the procedures bureaucratic or misaligned with their immediate needs. Programs often focus on large-scale or standardised curricula that fail to address the contextual requirements of local industries in Nagpur.

Inadequate Evaluation Mechanisms

Training outcomes are seldom measured systematically. Without metrics linking cost to performance, MSME owners cannot convincingly evaluate returns on training investment. This lack of evaluation perpetuates a perception that training expenses are unrecoverable.

Narrative Analysis and Discussion

This section synthesises theoretical insights through a narrative interpretation of the Cost–Skill Nexus. Rather than relying solely on statistical models, it explores conceptual linkages that explain how training

investments evolve into skill-based competencies within the socio-economic realities of MSMEs.

The Dual Logic of Cost and Value

Training expenditure in MSMEs embodies a paradox of immediacy versus futurity. The immediate logic reflects the tangible financial burden—wages paid during training hours, materials, and administrative costs. The futurity logic embodies anticipated but uncertain benefits such as innovation, efficiency, and morale. The theoretical integration of these two logics forms the essence of the Cost–Skill Nexus.

Within this nexus, cost is not merely a deterrent but a signal of strategic intent. When management consciously chooses to incur training costs despite short-term constraints, it communicates a commitment to long-term capability building. This psychological signalling reinforces trust and collective efficacy among employees, further amplifying training outcomes.

Contextual Moderators in MSMEs

The effectiveness of training investment is heavily moderated by contextual variables.

- *Organisational Culture*: A culture that values learning encourages employees to internalise training content and apply it in practice.
- *Leadership Orientation*: Participative leadership styles often lead to higher skill transfer because they create a safe environment for experimentation.
- *Technological Readiness*: Firms with basic digital infrastructure can integrate blended learning formats that reduce cost without diluting quality.
- *External Linkages*: Partnerships with technical institutes and government programs can provide cost-sharing opportunities, mitigating the burden on MSMEs.

The Spiral of Capability Development

Drawing upon dynamic capability theory, employee skills evolve through iterative cycles of learning, application, feedback, and re-learning. Training investment initiates this spiral by providing new knowledge; subsequent work experience converts knowledge into tacit competence. MSMEs that sustain this spiral—even with small budgets—gradually transform learning into competitive advantage.

Psychological and Social Dimensions

Beyond economics, training represents an act of social recognition. Employees interpret investment in their development as evidence of trust, which strengthens affective commitment. This psychosocial bond reduces turnover and encourages discretionary effort, thereby converting monetary cost into social capital.

Moreover, peer learning and group discussions during training sessions enhance collective intelligence. In smaller firms, where social proximity is high, these interactions generate communities of practice that continuously exchange knowledge, sustaining skill growth at minimal additional cost.

Temporal Dynamics and Sustainability

The Cost–Skill Nexus operates over time rather than instantaneously. Initial training costs may exceed measurable returns, leading to managerial impatience. However, theoretical models of learning diffusion suggest that benefits accumulate cumulatively: once a threshold of collective competence is achieved, performance gains accelerate. Thus, training should be conceptualised as a multi-period investment rather than a one-time expenditure.

Theoretical Integration: Toward a Cost–Skill Model

Synthesising multiple perspectives yields a conceptual model where cost is the independent variable, skill development is the mediating process, and organisational outcomes are the dependent variables. Several theoretical strands are integrated here:

i. *Human Capital Theory* explains the rational investment in training for productivity gains.

ii. *Resource-Based View (RBV)* situates employee skill as a rare and inimitable resource conferring sustained advantage.

iii. *Learning Organisation Theory* highlights continuous knowledge renewal as a driver of adaptability.

iv. *Behavioural Economics* introduces bounded rationality, explaining why MSME owners under-invest despite long-term benefits.

These frameworks together form a holistic understanding that cost and skill are not merely linked through financial arithmetic but through a web of behavioural, organisational, and institutional relationships.

Narrative Illustration: The MSME Experience in Nagpur

A narrative depiction based on typical MSME patterns helps ground theory in lived reality. Consider a small engineering unit in Nagpur employing thirty workers. The owner allocates ₹1 lakh annually for training—primarily technical upskilling and safety workshops. Initially, production output declines during the training period, and the owner questions the expense. However, within three months, defect rates drop by 25 per cent, and employee absenteeism falls significantly. Workers exhibit improved teamwork and suggest new process adjustments that save time and raw materials.

This illustrative cycle demonstrates the Cost–Skill Nexus in action: an up-front cost followed by nonlinear benefits that extend beyond measurable output. The story mirrors the typical developmental arc of MSMEs that commit to skill investment despite uncertainty.

Narrative Synthesis and Policy Implications

From a theoretical standpoint, the Cost–Skill Nexus invites both academic reflection and policy intervention.

For MSME Practitioners

i. *Strategic Framing*: Training budgets should be treated as capital expenditure with deferred payback rather than routine operational costs.

ii. *Incremental Investment*: Even modest, continuous investments can compound into substantial capability gains.

iii. *Evaluation Systems*: MSMEs should adopt simple key performance indicators—defect rates, learning hours per employee, and innovation frequency—to monitor training effectiveness.

iv. *Collaborative Learning Networks*: Forming local clusters that share training infrastructure can lower individual firm costs.

For Policymakers

i. *Localised Support Programs*: District-level skill councils should tailor schemes to local industry profiles.

ii. *Subsidy Structuring*: Incentives should be tied to verified skill outcomes rather than enrollment numbers.

iii. *Digital Enablement*: Promotion of low-cost digital learning tools can bridge access gaps for rural or semi-urban MSMEs.

iv. *Awareness Campaigns*: Disseminating success stories from local enterprises can change managerial attitudes toward training expenditure.

For Researchers

The theoretical framework developed here lays the groundwork for empirical testing. Future studies could quantify the elasticity between training cost and skill gain using regression or structural equation models. Additionally, longitudinal designs could trace how sustained training investment alters firm-level performance over time.

Interim Summary

The first part of this paper has established a comprehensive theoretical understanding of how training cost interacts with skill development in the

context of MSMEs. The following propositions emerge from the discussion:

i. Training costs function as an investment rather than an expense when viewed through the lens of human capital and dynamic capability theories.

ii. Skill development serves as the mediating mechanism through which cost influences productivity, quality, and innovation.

iii. Contextual moderators—such as organisational culture, technological infrastructure, and leadership—determine the strength of the cost–skilled relationship.

iv. Psychological and social factors play crucial roles in amplifying the impact of monetary investment on learning outcomes.

Thus, the theoretical model positions the Cost–Skill Nexus as an interdependent system of financial commitment, cognitive transformation, and organisational evolution.

The upcoming empirical section (Part 2) will extend these conceptual insights by examining real-world data from MSMEs in Nagpur District, testing whether the theoretical patterns identified here manifest in measurable outcomes.

THEORETICAL FRAMEWORK AND CONCEPTUAL PERSPECTIVES

Employee training and skill development have long been recognised as the cornerstones of sustainable organisational growth. In the context of MSMEs, training serves not only as a means to improve individual performance but also as a strategic mechanism for enhancing firm competitiveness, productivity, and innovation. The theoretical understanding of the cost–skill nexus—how investments in employee training translate into tangible and intangible skill gains—draws upon a wide range of organisational, economic, psychological, and sociological frameworks. This section elaborates on the key theoretical perspectives underpinning this relationship.

Human Capital Theory

The most dominant framework explaining the link between training investment and skill acquisition is Human Capital Theory (HCT), first popularised by Becker (1964). HCT posits that education and training enhance the productive capacity of individuals in the same way that physical capital increases the productivity of machinery. From this standpoint, training is an *investment* rather than an expense: it yields future benefits in the form of increased employee efficiency, innovation, and adaptability (Becker, 1993).

In the MSME context, HCT provides a compelling rationale for allocating scarce resources to employee development despite budget constraints. When employees in small firms undergo targeted training, they develop skills that enhance both personal employability and firm performance. As Schultz (1961) argued, the aggregate impact of human capital accumulation can drive national productivity. For MSMEs operating in the competitive environment of Nagpur District, where technological adaptation and market responsiveness are crucial, human capital investment becomes a differentiating factor between survival and stagnation.

Resource-Based View (RBV)

Complementing HCT is the RBV (Barney, 1991), which frames training and skills as strategic resources capable of generating sustained competitive advantage. According to RBV, resources that are Valuable, Rare, Inimitable, and Non-Substitutable (VRIN) enable firms to outperform competitors. Employee capabilities—developed through consistent training—meet these criteria, particularly in MSMEs where personalised learning fosters firm-specific knowledge.

From a theoretical standpoint, training expenditures constitute a strategic investment in intangible assets. MSMEs that nurture a learning-oriented culture transform individual skill sets into collective competencies, thereby enhancing organisational agility

(Wright *et al.*, 2001). The RBV emphasises the internal processes through which training knowledge becomes embedded within organisational routines, forming a capability base that competitors find difficult to replicate.

Learning Organisation Theory

Learning Organisation Theory (Senge, 1990) views continuous learning as integral to organisational effectiveness. A learning organisation systematically expands the capacity of its members to create desired results, foster collective aspiration, and continually learn from experience. Training in this paradigm transcends formal classroom sessions; it becomes a continuous, embedded process that aligns with strategic objectives.

For MSMEs, adopting learning organisation principles is particularly significant. Their smaller size allows greater flexibility in implementing learning interventions, but limited resources often constrain systematic training programs. Nevertheless, by cultivating a culture of reflection, experimentation, and peer learning, MSMEs can convert routine experiences into strategic insights. The theoretical connection between cost and skill here lies in *learning returns*: modest, well-structured investments can yield exponential capability growth when embedded in a learning culture.

Systems Theory and the Training Ecosystem

From a Systems Theory perspective (von Bertalanffy, 1968), organisations are open systems interacting dynamically with their environments. Employee training represents a subsystem within this broader organisational system, influenced by feedback loops, environmental stimuli, and internal constraints. Systems thinking suggests that training outcomes cannot be evaluated in isolation; they depend on interactions among various elements—organisational structure, leadership style, technology adoption, and employee motivation.

Applying Systems Theory to MSMEs in Nagpur District highlights the interconnectedness of training investments and operational outcomes. A minor adjustment in training cost allocation can have cascading effects on skill levels, productivity, and innovation capacity. The cost–skill nexus, therefore, reflects systemic interdependencies rather than linear cause–and–effect relations.

Psychological and Behavioural Theories

Behavioural and cognitive psychology contribute vital insights into how individuals acquire and retain skills. **Behaviourist theories** (Skinner, 1953) emphasise reinforcement and repetition, suggesting that effective training requires feedback mechanisms and rewards for desired behaviours. **Cognitive theories** (Piaget, 1970) focus on mental processes—how trainees interpret, organise, and apply information. **Social Learning Theory** (Bandura, 1977) adds a social dimension, proposing that employees learn through observation and modelling.

Within MSMEs, these theories underscore the need for context-sensitive training designs. Cost-effective programs emphasising experiential learning, mentoring, and peer collaboration can maximise learning retention without excessive expenditure. The cost–skill relationship is thus mediated by psychological variables such as motivation, learning style, and self-efficacy (Gagné & Medsker, 1996).

Expectancy Theory and Motivation to Learn

Vroom's Expectancy Theory (1964) further illuminates how perceived value influences employees' willingness to engage in training. It posits that motivation results from the belief that effort will lead to performance (expectancy), performance will lead to outcomes (instrumentality), and those outcomes will be valuable (valence). In MSMEs, where training budgets are often tight, ensuring that employees perceive tangible benefits—promotion opportunities, recognition, or skill certification—becomes critical for maximising return on investment.

From a theoretical viewpoint, cost effectiveness hinges on aligning employee motivation with organisational goals. If the perceived benefits of training exceed its

opportunity cost, both employees and employers view the expenditure as justified.

Theories of Organisational Learning and Knowledge Management

Organisational Learning Theory (Argyris & Schön, 1978) differentiates between single-loop and double-loop learning. The former involves correcting errors within existing frameworks, while the latter challenges and reshapes the underlying norms and strategies. In MSMEs, training often triggers double-loop learning by questioning traditional practices and introducing innovation.

Knowledge Management (KM) theories complement this by emphasising the conversion of tacit knowledge (experiential) into explicit knowledge (documented), following the SECI model (Nonaka & Takeuchi, 1995). Training interventions facilitate this knowledge spiral, enabling organisations to institutionalise employee know-how. The cost of training, therefore, should not only be viewed as expenditure on individuals but as an investment in collective knowledge infrastructure.

Dynamic Capabilities Theory

The Dynamic Capabilities framework (Teece et al., 1997) extends RBV by focusing on an organisation's ability to integrate, build, and reconfigure internal and external competencies in response to environmental changes. In volatile MSME environments, dynamic capabilities—such as rapid upskilling, technological adaptability, and innovation—are crucial. Training expenditure serves as the engine for capability renewal.

The theoretical linkage between cost and skill is temporal: while initial training costs may appear high, they create a dynamic learning mechanism that continuously regenerates the firm's strategic capabilities. For MSMEs in Nagpur District facing digital transformation and global competition, dynamic capabilities are the ultimate return on training investment.

Socio-Economic Perspectives

From a socio-economic standpoint, training and skill development contribute to inclusive growth, employment generation, and social mobility. Keynesian economists have long argued that human capital investments stimulate demand and economic resilience (Keynes, 1936). In developing economies like India, MSMEs act as socio-economic stabilisers by providing local employment. The diffusion of skills through training enhances community-level productivity and reduces income disparities.

Thus, the cost–skill nexus extends beyond firm boundaries, influencing regional economic development. MSMEs in Nagpur District contribute to this process by upskilling their workforce and creating local supply chain competencies.

Institutional Theory

Institutional Theory (DiMaggio & Powell, 1983) emphasises the role of external pressures—coercive, normative, and mimetic—in shaping organisational behaviour. MSMEs often conform to industry norms, government policies, and professional standards related to employee training. Institutional environments, such as mandates from the Ministry of MSME or sectoral skill councils, influence how firms allocate training budgets.

The cost–skill nexus, under this lens, is not merely an internal management decision but a product of institutional conformity and legitimacy-seeking behaviour. Firms invest in training not only to enhance skills but also to signal compliance and professionalism within their ecosystems.

Socio-Technical Systems Theory

The Socio-Technical Systems (STS) approach (Trist & Emery, 1959) views organisations as joint systems of people and technology. Effective training must align human capabilities with technological demands. For MSMEs undergoing digitisation—adopting ERP systems, automation, or digital marketing—training ensures a balanced integration of social and technical subsystems.

Theoretically, training cost optimisation requires balancing human adaptability and technological

complexity. Excessive investment in technology without corresponding skill development leads to underutilisation; conversely, training without technological support limits productivity gains.

Competency-Based Approach

The Competency-Based Training (CBT) model (Boyatzis, 1982) links skill development to observable behaviours and performance outcomes. It assumes that competencies—knowledge, skills, and attitudes—can be explicitly defined and systematically developed. MSMEs can use CBT frameworks to prioritise essential competencies aligned with business goals, thereby optimising training costs.

From a theoretical perspective, CBT aligns with the concept of strategic human resource management by translating organisational objectives into measurable training outcomes. The cost–skill relationship here is direct: targeted investment in core competencies yields proportionally higher performance returns.

Economic Theories of Cost and Efficiency

Classical and neoclassical economic theories contribute to understanding training costs through the lens of cost–benefit analysis, opportunity cost, and marginal utility. Firms evaluate whether the marginal benefit of improved skills exceeds the marginal cost of training (Samuelson & Nordhaus, 2001). MSMEs, characterised by limited capital and high labour intensity, face sharper trade-offs.

In this theoretical framing, optimal training expenditure occurs when the marginal productivity of training investment equals its marginal cost. Cost–skill equilibrium thus becomes a function of rational allocation under resource constraints.

Social Exchange Theory

Social Exchange Theory (Blau, 1964) suggests that relationships are based on reciprocal exchanges of benefits. In organisational settings, when firms invest in employee training, employees reciprocate with greater commitment, loyalty, and discretionary effort (Cropanzano & Mitchell, 2005). This relational dynamic enhances skill utilisation and retention.

For MSMEs, where formal career ladders may be absent, such reciprocal exchanges create an informal psychological contract that sustains motivation and reduces turnover. The theoretical implication is that training cost effectiveness is reinforced through relational trust and mutual obligation.

MODELS OF EMPLOYEE TRAINING AND SKILL DEVELOPMENT

Understanding how training investments translate into employee skill enhancement requires a structured analysis of theoretical and applied models. Over the decades, scholars have developed multiple frameworks to conceptualise how training occurs, how it can be evaluated, and how organisations can link it to strategic outcomes. For MSMEs, these models are particularly useful in designing cost-effective, scalable, and context-sensitive learning systems.

The Kirkpatrick Model of Training Evaluation

One of the most influential frameworks in training theory is Kirkpatrick's Four-Level Evaluation Model (Kirkpatrick, 1959). It proposes a sequential evaluation of training outcomes at four levels:

- Reaction – how participants respond to the training.
- Learning – what knowledge or skills are acquired.
- Behaviour – how the learning is applied on the job.
- Results – the impact on organisational performance.

For MSMEs, Kirkpatrick's model offers a logical and cost-effective way to measure training effectiveness without complex metrics. Since MSMEs operate with limited training budgets, a structured evaluation helps ensure that every rupee spent contributes meaningfully to skill development. In theoretical terms, the

Kirkpatrick model operationalises the cost–skill nexus by linking expenditure to measurable learning outcomes.

The Phillips ROI Model

Building on Kirkpatrick, Jack Phillips (1996) introduced the fifth level of evaluation—Return on Investment (ROI)—to quantify the financial impact of training. The Phillips ROI model helps organisations determine whether training expenditures generate proportionate returns in terms of increased productivity, reduced turnover, or improved quality.

For MSMEs, this model has significant implications. It demonstrates that even small-scale training initiatives can yield high ROI when designed strategically. For example, training employees in digital tools might require moderate upfront costs but could substantially enhance operational efficiency and reduce dependency on external vendors. The model, therefore, reinforces the view of training as an investment rather than a cost sink.

The ADDIE Model of Instructional Design

The ADDIE Model—standing for Analysis, Design, Development, Implementation, and Evaluation—is a systematic framework for creating effective training programs (Molenda, 2003).

- Analysis involves identifying learning needs and gaps.
- Design specifies learning objectives, content, and delivery methods.
- Development creates materials and modules.
- Implementation executes the program.
- Evaluation assesses its effectiveness.

In the MSME context, ADDIE provides a structured yet flexible blueprint. Since resource availability and employee profiles vary widely, MSMEs can adapt the model's stages to local conditions. Theoretically, the ADDIE model reflects systems theory principles by emphasising feedback loops between design and implementation. Cost optimisation occurs when training design is informed by clear performance gaps and targeted objectives.

The 70:20:10 Model of Learning

Developed by McCall, Lombardo, and Eichinger (1996), the 70:20:10 Model suggests that learning happens:

- 70% through on-the-job experiences,
- 20% through social learning and mentoring, and
- 10% through formal training.

This model is particularly relevant to MSMEs, where formal training budgets may be limited. It implies that organisations can enhance employee skills primarily through experiential and social learning rather than costly classroom programs. By fostering job rotation, peer learning, and project-based assignments, MSMEs can achieve skill enhancement at minimal cost. Theoretically, this model bridges behavioural and experiential learning theories within a cost-efficient framework.

The Kolb Experiential Learning Model

David Kolb's Experiential Learning Theory (1984) asserts that learning is a cyclical process involving concrete experience, reflective observation, abstract conceptualisation, and active experimentation. Employees learn most effectively when they can apply theoretical concepts to practical situations and reflect upon the outcomes.

For MSMEs, which often operate in hands-on environments such as manufacturing, services, or retail, Kolb's model aligns perfectly with their operational reality. It highlights that high-impact learning can occur without high financial expenditure, provided employees are given opportunities for experimentation and reflection. The cost–skill nexus here is expressed through experiential returns—skills deepened through repeated cycles of learning and doing.

The Competency Mapping Model

Competency Mapping focuses on identifying the specific competencies required for job performance and aligning training accordingly (Spencer & Spencer, 1993). This model helps organisations avoid generic or irrelevant training programs by customising learning to strategic needs.

In MSMEs, competency mapping is essential for resource optimisation. Instead of spreading training budgets thin across multiple domains, firms can concentrate on mission-critical skills—technical, managerial, and interpersonal. The theoretical value of competency mapping lies in its alignment with the resource-based view, which considers unique competencies as the foundation of competitive advantage.

The Balanced Scorecard and Training Alignment

Introduced by Kaplan and Norton (1992), the Balanced Scorecard (BSC) provides a multidimensional framework for performance management. It includes four perspectives—financial, customer, internal process, and learning and growth. Training and skill development are embedded in the "learning and growth" dimension, emphasising their strategic role in achieving business outcomes.

In MSMEs, integrating BSC into training evaluation ensures that cost allocation aligns with long-term performance indicators. It allows firms to view training not as a short-term expense but as a strategic lever for innovation, quality, and customer satisfaction. Theoretically, this model merges financial and human capital perspectives into a unified framework.

The Holton Model of Training Transfer

Holton's Transfer of Training Model (Holton, 1996) expands on Kirkpatrick by introducing variables that affect learning transfer—motivation, environmental support, and ability. For MSMEs, the Holton model is useful for understanding why employees may fail to apply training knowledge on the job. Barriers such as a lack of supervisor support, inadequate tools, or poor feedback mechanisms can diminish training impact.

By addressing these barriers, MSMEs can enhance the "transfer climate," thereby ensuring that training investments lead to observable skill development. Theoretically, this model integrates psychological and organisational dimensions within the cost–skill framework.

The Continuous Improvement (Kaizen) Model

Rooted in Japanese management philosophy, Kaizen emphasises small, continuous improvements rather than large-scale change (Imai, 1986). Training in the Kaizen model is incremental, embedded within daily work routines, and employee-driven. MSMEs can adopt this approach to foster continuous upskilling without heavy financial commitments.

From a theoretical viewpoint, Kaizen resonates with Learning Organisation Theory and Dynamic Capabilities Theory. It shows that training cost efficiency is maximised when learning is continuous and embedded in operational cycles.

The Blended Learning Model

Blended Learning integrates traditional instructor-led methods with digital and experiential learning (Garrison & Kanuka, 2004). This hybrid model allows MSMEs to combine cost-effective online modules with practical workshops. It also enables flexibility in scheduling and scalability across departments.

Theoretically, the model embodies systems and socio-technical perspectives, balancing technological and human factors. In the post-pandemic environment, where digitalisation is accelerating, MSMEs can adopt blended learning to maintain training continuity while minimising costs.

ROLE OF TRAINING COSTS IN ORGANISATIONAL PERFORMANCE

Understanding Training Costs

Training costs comprise both direct and indirect components. Direct costs include trainer fees, materials, and infrastructure, while indirect costs encompass employee downtime, administrative support, and opportunity costs (Noe, 2020). In MSMEs, managing these costs is crucial due to financial constraints. Theoretical understanding requires differentiating

between *investment costs* (long-term gains) and *consumption costs* (short-term expenditures).

From an economic theory perspective, training costs can be viewed as capital investments yielding future productivity streams. The balance between upfront expenditure and long-term performance gains defines the cost–skill efficiency frontier.

Training as a Strategic Investment

In the strategic management literature, training is conceptualised as a strategic investment that shapes organisational capability. MSMEs that invest in structured training gain improved adaptability, innovation, and employee engagement. The Strategic Human Resource Management (SHRM) framework positions training as a key element of competitive strategy (Wright & McMahan, 1992).

This strategic view of training emphasises alignment between skill development initiatives and business objectives. MSMEs can achieve cost efficiency by linking training investments directly to key performance indicators such as productivity, customer satisfaction, and employee retention.

Cost Optimisation in MSME Training

Cost optimisation involves achieving the highest learning outcomes with minimal expenditure. MSMEs can employ several theoretical and practical strategies to optimise costs:

- *Needs-based training*: Conducting skill gap analyses to target high-impact areas.
- *Collaborative learning*: Leveraging peer networks or industry associations for shared training programs.
- *Digital training*: Utilising free or low-cost e-learning platforms.
- *In-house trainers*: Developing internal experts to reduce dependence on external consultants.

From a theoretical lens, cost optimisation is grounded in *efficiency theory* and *lean management principles*, suggesting that resources should be allocated to areas that yield maximum marginal benefits.

Cost–Benefit Analysis and Return Metrics

Cost–Benefit Analysis (CBA) remains a fundamental tool for evaluating training investments (Levin & McEwan, 2001). By quantifying both tangible and intangible benefits—such as reduced errors, increased innovation, and improved morale—organisations can determine net gains. MSMEs can employ simplified CBA frameworks to justify training budgets to stakeholders.

Theoretically, CBA embodies neoclassical economic rationality. However, behavioural economics suggests that firms often underestimate intangible benefits due to bounded rationality and short-term orientation (Kahneman, 2011). For MSMEs, integrating both perspectives ensures balanced decision-making.

Training Expenditure and Skill Retention

Skill development is not merely about acquisition but retention and application. Without reinforcement mechanisms, learned skills decay over time (Ebbinghaus, 1885). Therefore, training expenditures must include follow-up and reinforcement activities—refresher sessions, mentoring, and continuous learning opportunities.

From a theoretical standpoint, Learning Retention Theory implies that cost efficiency is realised only when skills remain sustainable over time. MSMEs can thus view reinforcement mechanisms as protective layers preserving the value of training investments.

Cost Dynamics in MSME Context

MSMEs differ from large corporations in cost dynamics due to factors such as scale, resource scarcity, and informal management systems. The economies of scale principle, which reduces average cost with increased production, applies differently in training. MSMEs often face *diseconomies of scale* in training because small batches lead to higher per-employee costs.

However, the flexibility advantage offsets this limitation. Smaller structures allow personalised training, quicker implementation, and adaptive feedback. Theoretically,

MSMEs operate on a *flexible learning economy* rather than a scale-based one (Atkinson & Meager, 1994).

The Multiplier Effect of Training

Training investments have a multiplier effect across organisational dimensions. Enhanced skills lead to innovation, better customer service, and improved quality control, which in turn improve profitability. From an economic development perspective, trained employees contribute to community-level skill diffusion.

In MSMEs, this multiplier effect strengthens the local economy, particularly in regions like Nagpur District where MSMEs are major employment generators. Thus, the theoretical understanding of the cost–skill nexus extends from firm-level efficiency to regional development outcomes.

NARRATIVE ANALYSIS OF FINDINGS

Expanding the Theoretical Lens: Understanding the Cost–Skill Nexus

The relationship between training cost and employee skill development, often referred to as the Cost–Skill Nexus, has evolved from being viewed merely as a budgetary consideration to a strategic investment in human capital. Theoretically, this nexus lies at the intersection of Human Capital Theory, RBV, and Organisational Learning Theory, each contributing unique insights into how investments in training transform organisational competence.

From a Human Capital Theory perspective (Becker, 1964), training is conceptualised as an investment in enhancing the productivity of employees. The incurred cost represents a form of capital formation that yields returns in the form of improved performance, innovation, and adaptability. However, MSMEs, especially in emerging economies like India, often face resource constraints that force them to balance training expenditures with immediate operational needs. The theoretical challenge thus becomes understanding how MSMEs can maximise skill development outcomes while maintaining cost efficiency.

In contrast, the RBV (Barney, 1991) positions skills and competencies as rare, valuable, and inimitable resources that provide a sustained competitive advantage. From this standpoint, training investments are not simply expenses but strategic initiatives that embed knowledge within the organisation's social and structural fabric. For MSMEs, this perspective underscores the importance of skill retention mechanisms and continuous learning environments, ensuring that training costs translate into long-term organisational value.

The Organisational Learning Theory (Argyris & Schön, 1978) extends the discussion by emphasising the process of internalising and institutionalising learned behaviours. Here, training costs are justified not only by individual skill gains but also by the creation of learning systems—shared norms, feedback loops, and adaptive practices. The theoretical synthesis of these views reveals that training costs must be viewed holistically—as enablers of transformation rather than as financial burdens.

Strategic Human Resource Development (SHRD) Frameworks and MSME Realities

Strategic Human Resource Development (SHRD) frameworks integrate the objectives of HRD with the strategic goals of the firm. In MSMEs, where agility and adaptability are essential, SHRD provides a conceptual structure for aligning training investments with organisational performance. Key theoretical models such as the Holistic HRD Framework (Garavan, 1991) and the Strategic Integration Model (McCracken & Wallace, 2000) highlight the need to embed training within organisational strategy, leadership commitment, and cultural readiness.

In theory, SHRD frameworks operate on three pillars—strategic alignment, stakeholder commitment, and systemic integration. Strategic alignment ensures that training programs directly support the enterprise's long-term vision; stakeholder commitment secures management and employee engagement; and systemic

integration links HRD with performance metrics. In MSMEs, this theoretical ideal faces contextual challenges such as limited budgets, informal HR structures, and dependency on owner-driven decision-making.

Nevertheless, empirical patterns in related studies show that when MSMEs adopt even minimal SHRD practices—like need-based training assessments, mentoring programs, or competency mapping—the returns on training cost increase substantially. The theoretical implication is that cost-effectiveness emerges from strategic coherence, not merely from cost minimisation.

Economic Perspectives on Training Cost: Balancing Efficiency and Effectiveness

The economic theories of training view the cost of employee development as an investment decision governed by principles of marginal utility and opportunity cost. According to Becker's (1993) refinement of human capital investment, organisations must weigh the marginal productivity gains from training against the marginal cost incurred. MSMEs often struggle with this equilibrium, as the short-term financial pressures can overshadow the long-term gains of skill enhancement.

The Cost–Benefit Theory applied to HRD posits that effective training management requires quantifying both tangible and intangible returns. Tangible returns include improved productivity, reduced error rates, and increased quality outputs, while intangible returns encompass morale, commitment, and innovation capacity. The theoretical challenge lies in developing measurement frameworks that capture the full spectrum of training outcomes.

A useful conceptual model for this is the Return on Expectation (ROE) framework proposed by Phillips and Phillips (2016), which broadens evaluation beyond monetary returns to include strategic alignment and stakeholder satisfaction. In MSME contexts, ROE-based approaches can theoretically balance financial limitations with qualitative growth indicators. Thus, the economic rationalisation of training costs is not about minimising spending but about optimising impact across multiple dimensions of value creation.

The Psychology of Training Investment: Motivation, Learning, and Retention

Theoretical models of training effectiveness often integrate psychological perspectives, recognising that the cost–skill relationship depends not only on financial inputs but also on employee motivation and learning orientation. Expectancy Theory (Vroom, 1964) explains that employees' effort toward learning is proportional to their belief that training will lead to desirable outcomes—such as recognition, career advancement, or monetary rewards. When organisations communicate the purpose and value of training effectively, the psychological return multiplies the economic investment.

Similarly, Social Learning Theory (Bandura, 1977) suggests that observational learning, modelling, and reinforcement mechanisms play crucial roles in training success. MSMEs that create collaborative environments—where experienced employees mentor novices—achieve skill transfer without incurring high formal training costs. This "socially leveraged learning" theoretically enhances the cost-efficiency of skill development initiatives.

Furthermore, Goal-Setting Theory (Locke & Latham, 1990) emphasises that clearly defined training goals and feedback mechanisms improve learning retention. The psychological framework indicates that the cost of training yields higher returns when employees are intrinsically motivated, when learning objectives are transparent, and when reinforcement is consistent. Thus, the theoretical integration of psychology and economics provides a multidimensional understanding of the cost–skill nexus in MSMEs.

Organisational Learning and Knowledge Retention in MSMEs

Knowledge retention is the theoretical backbone of sustainable skill development. The Organisational

Knowledge Creation Theory (Nonaka & Takeuchi, 1995) presents a dynamic model (SECI—Socialisation, Externalisation, Combination, Internalisation) that explains how tacit and explicit knowledge circulate within firms. The cost of training, in this framework, is an investment in maintaining this knowledge flow.

MSMEs often face a high turnover rate and informal learning cultures, making knowledge retention a major challenge. Theoretically, the efficiency of training expenditure increases when MSMEs institutionalise learning through documentation, mentoring, and process codification. The concept of learning capability (Jerez-Gómez *et al.*, 2005) further emphasises that organisations capable of learning continuously convert training expenses into strategic capital.

Hence, the theory proposes a feedback loop: the higher the organisational learning capacity, the greater the return on training cost; the higher the return, the more resources are reinvested in training. This cyclical relationship forms the essence of self-reinforcing learning systems in MSMEs.

Integrative Discussion: Synthesising Cost, Skill, and Strategy

Integrating the above theories reveals a layered understanding of the cost–skill nexus. Economically, training represents a capital investment; strategically, it builds competitive advantage; and psychologically, it fosters engagement and motivation. The integrative model thus combines cost-efficiency, learning effectiveness, and strategic sustainability.

In MSMEs, where financial prudence is critical, the integration of these perspectives leads to the development of a Training Value Optimisation (TVO) framework. The TVO model theoretically advocates for:

- Aligning training objectives with business goals.
- Prioritising high-impact skills that yield measurable productivity gains.
- Leveraging informal and experiential learning to minimise cost.
- Institutionalising learning processes to sustain skill continuity.
- Evaluating both tangible and intangible outcomes to justify investment.

This synthesis bridges the gap between cost-centric and skill-centric approaches, arguing that MSMEs can achieve sustainable growth when training expenditures are strategically aligned with long-term competency building.

Theoretical Implications for Policy and Practice

From a policy standpoint, the cost–skill nexus framework underscores the importance of government-supported training subsidies, industry partnerships, and skill ecosystem integration. The National Skill Development Corporation (NSDC) and similar bodies can theoretically reduce the burden of training costs for MSMEs by co-financing programs and offering modular, sector-specific curricula.

For practitioners, the theoretical insights suggest that MSMEs must move from cost-avoidance to cost-optimisation—viewing training as a recurrent strategic investment. The creation of micro-learning ecosystems, cluster-based training collaborations, and digital learning platforms can enhance accessibility and affordability.

Theoretical Perspectives on Training Evaluation and Measurement Models

The measurement of training outcomes has remained a theoretical challenge for decades. While Kirkpatrick's Four-Level Model (1959) — reaction, learning, behaviour, and results — remains foundational, its extension into the Phillips ROI Model (1997) brought a cost-based dimension that is crucial for MSMEs. Theoretically, combining these frameworks yields a hybrid evaluation model that balances financial metrics with behavioural indicators.

In MSMEs, traditional ROI calculations are often impractical due to limited data. The Theory of Change (ToC) framework offers a more flexible theoretical

lens. It posits that training evaluation should trace the causal pathway from inputs (training cost and content) to outputs (skill improvement) and long-term outcomes (business growth). This allows firms to justify investments by demonstrating logical, evidence-based linkages rather than exact monetary figures.

The theoretical implication is clear: evaluation must be context-responsive. MSMEs should employ adaptive evaluation models that integrate quantitative and qualitative criteria. Doing so aligns the economic logic of cost management with the human logic of development, ensuring that the value of training extends beyond accounting spreadsheets into real skill advancement.

Knowledge-Based View (KBV) and Dynamic Capabilities Theory

The Knowledge-Based View (KBV) (Grant, 1996) conceptualises knowledge as the most strategically significant resource within organisations. From this perspective, training cost serves as the price of knowledge accumulation. The KBV emphasises that knowledge creation, integration, and protection are fundamental to sustained advantage.

In MSMEs, where innovation often arises from tacit expertise and personal networks, training investments accelerate the conversion of tacit knowledge to explicit knowledge. The theoretical process involves codifying employee experience into procedures and best practices, thereby embedding individual learning into the organisation's memory.

Closely related is the Dynamic Capabilities Theory (Teece, Pisano, & Shuen, 1997), which focuses on a firm's ability to integrate, build, and reconfigure competencies in rapidly changing environments. The cost–skill nexus becomes a mechanism for capability renewal: training represents the dynamic process through which firms sense opportunities, seize them through skill upgrading, and transform resources to sustain competitiveness.

Thus, theoretically, every rupee invested in training contributes to strengthening the micro-foundations of dynamic capabilities — employee agility, problem-solving ability, and innovation culture — which are essential for MSMEs facing volatile markets.

Institutional and Socio-Cultural Theories of Training Investment

Institutional Theory (DiMaggio & Powell, 1983) provides another dimension to the cost–skill debate. It argues that organisations often invest in training not merely for efficiency but to achieve legitimacy within their institutional environment. MSMEs in Nagpur, for instance, may undertake training initiatives to align with government schemes, industry associations, or corporate social responsibility expectations. The cost thus becomes a symbolic signal of conformity and professionalism.

Socio-Cultural Theory (Vygotsky, 1978) enriches this perspective by emphasising that learning is embedded in social contexts. In MSMEs, which typically operate through close interpersonal relationships, collective learning becomes a cost-effective mechanism for skill transmission. Group workshops, peer-to-peer mentoring, and community learning platforms embody this socio-cultural dynamic.

Theoretically, combining institutional and socio-cultural lenses suggests that training costs are socially constructed — they derive meaning not only from financial expenditure but from shared cultural and institutional values. This insight broadens the concept of "cost" to include social capital, trust, and reputation — intangible yet powerful assets that contribute to sustained skill ecosystems.

Theoretical Approaches to Learning Transfer and Retention

One of the central theoretical issues in HRD is the transfer of learning — the degree to which skills acquired in training are applied to job performance. Baldwin and Ford's (1988) model identifies three key determinants: trainee characteristics, training design,

and work environment. In MSMEs, where hierarchical structures are flatter and supervision is direct, the work environment plays an especially crucial role in sustaining learning transfer.

From a theoretical standpoint, transfer climate acts as a mediator between training cost and skill utilisation. Even low-cost training programs can achieve high impact if the organisational culture supports experimentation and learning application. Conversely, high expenditure yields little value in rigid environments resistant to change.

Furthermore, the Cognitive Load Theory (Sweller, 1988) and Experiential Learning Theory (Kolb, 1984) reinforce that training design must balance complexity with engagement. MSMEs can theoretically leverage micro-learning and project-based training to optimise cognitive processing while minimising financial outlay. These approaches demonstrate that cost efficiency and learning quality are not mutually exclusive but can be harmonised through sound pedagogical design.

Leadership and the Cost–Skill Paradigm

Leadership theories offer a critical interpretive dimension to the cost–skilled nexus. Transformational Leadership Theory (Bass, 1985) argues that leaders who inspire, intellectually stimulate, and support their subordinates foster intrinsic motivation and higher learning outcomes. Theoretically, transformational leadership amplifies the effectiveness of training investments by enhancing employees' readiness to learn.

In MSMEs, leaders often double as owners or managers, and their personal vision heavily influences training decisions. The Leader–Member Exchange (LMX) Theory (Graen & Uhl-Bien, 1995) suggests that when leaders maintain high-quality exchanges with employees, the perceived value of training increases, reducing resistance and turnover.

Thus, leadership acts as a cost multiplier: Effective leadership reduces wastage of training expenditure by ensuring commitment, continuity, and culture alignment. Theoretically, this positions leadership development itself as a strategic investment parallel to employee training, reinforcing the interconnectedness of skill and cost paradigms.

Theoretical Integration: Systems Thinking and Holistic HRD

To reconcile the multiple theoretical perspectives discussed thus far, Systems Theory provides a unifying framework. Originating from the work of Bertalanffy (1968), systems thinking views the organisation as an interconnected entity where changes in one component influence all others. Training cost, skill acquisition, motivation, and productivity form interdependent subsystems within the HR architecture.

In a systems model of MSME HRD, feedback loops connect training expenditure to outcomes such as innovation and retention, which, in turn, affect future budget allocation. Theoretically, this recursive process creates a learning system equilibrium, where costs and benefits continually rebalance.

This approach aligns with Holistic HRD Theory (Swanson & Holton, 2001), which emphasises the synergy between individual, process, and organisational levels. From this vantage point, cost becomes a dynamic variable in a broader ecosystem of capability development. The theory asserts that the value of training cannot be assessed in isolation; it must be understood as a systemic phenomenon integrating financial, psychological, and cultural dimensions.

Ethical and Sustainable Dimensions of Training Investment

Emerging theoretical discourses in HRD now emphasise ethics and sustainability as critical components of training strategy. The Triple Bottom Line (Elkington, 1997) framework — focusing on people, planet, and profit — extends the cost–skilled debate into the ethical domain. Investment in employee skills should contribute not only to profitability but also to employee well-being and community development.

For MSMEs in Nagpur District, sustainable HRD implies designing training programs that are inclusive, environmentally conscious, and socially responsible. Theoretical constructs such as Corporate Sustainability Theory (Bansal, 2005) and Stakeholder Theory (Freeman, 1984) reinforce the idea that cost optimisation must be balanced with moral responsibility.

Ethical training practices—fair access, gender equity, and safe learning environments—serve as long-term value multipliers. Theoretically, ethical HRD transforms training cost into social investment, yielding reputational capital and employee loyalty. This perspective completes the conceptual evolution of the cost–skill nexus from a narrow financial equation to a multi-dimensional moral economy of learning.

Theoretical Framework for Future Research: The Cost–Skill Convergence Model

Synthesising the diverse theoretical strands discussed in this section, the Cost–Skill Convergence Model (CSCM) can be proposed as a conceptual framework for future empirical validation. The CSCM posits that the effectiveness of training investment depends on the dynamic interaction between four theoretical dimensions:

i. Economic Efficiency — the optimisation of financial resources.

ii. Learning Effectiveness — the cognitive and behavioural outcomes of training.

iii. Strategic Alignment — the fit between training objectives and business goals.

iv. Sustainability and Ethics — the long-term social and moral value generated.

Within MSMEs, these dimensions converge through feedback loops that determine the overall return on skill development. Theoretically, when all four dimensions align, training cost transcends its financial nature and becomes an engine of capability regeneration.

The CSCM integrates the principles of Human Capital Theory, Resource-Based View, and Systems Thinking into a singular, coherent framework suited to the MSME context. It underscores that the path to sustainable competitiveness lies not in reducing training expenditure but in enhancing cost intelligence — the strategic capacity to invest wisely in human potential.

Transition to Narrative Synthesis

The theoretical expansion presented in Part 5 lays the groundwork for a comprehensive narrative synthesis to follow in Part 2D. By exploring multiple lenses — economic, psychological, institutional, and ethical — this part has articulated how training cost functions as both a constraint and a catalyst for skill development.

The upcoming Part 2D will interpret these theories through an integrative, narrative approach, weaving together the conceptual insights into a cohesive understanding of the cost–skilled relationship within MSMEs of Nagpur District. It will also provide interpretive commentary on how these frameworks collectively inform HR policy, academic scholarship, and future research trajectories.

Narrative Synthesis: Integrating Theoretical and Empirical Insights

The narrative synthesis builds on the preceding theoretical constructs and the lived experiences gathered from MSME stakeholders in Nagpur District. This synthesis bridges the conceptual and the empirical—aligning the cost–skill relationship with both managerial realities and developmental aspirations.

The multiple narratives collected from employees, supervisors, and business owners reveal a multi-layered dynamic in which training cost decisions are shaped by internal motivations, external pressures, and institutional constraints. Rather than being purely

economic choices, these decisions reflect cultural values, leadership philosophies, and organisational learning orientations.

From a narrative standpoint, three integrative strands emerge:

i. The Economic Narrative — training as a cost centre versus a growth driver.

ii. The Human Development Narrative — training as a pathway to dignity, competence, and empowerment.

iii. The Strategic Narrative — training as a component of survival and innovation in competitive markets.

These three strands are interdependent. When viewed through the Cost–Skill Convergence Model (CSCM), they form a triadic synthesis where each narrative sustains and informs the other, collectively shaping the identity of MSMEs as learning organisations.

The Economic Narrative: Balancing Cost and Value

The economic narrative dominates the MSME decision-making framework. Owners of small and medium units frequently evaluate training in financial terms — seeking measurable returns. This mindset, while pragmatic, often limits the visionary potential of training as a developmental asset.

Interviews revealed that MSMEs operate under tight budgetary control, and hence, even minor expenditure on training is scrutinised. However, as reflected in previous themes, enterprises that gradually recognised the value-generation aspect of training began to witness tangible improvements in productivity and employee commitment.

In narrative synthesis, this shift is symbolically represented as a movement from cost aversion to cost appreciation. It reflects an evolution of managerial maturity—an awareness that optimising training expenditure is not about minimising cost but maximising strategic return.

This finding echoes the RBV, which emphasises that unique capabilities—such as skilled human capital—become sustainable competitive advantages when strategically nurtured. Thus, the economic narrative in MSMEs of Nagpur reveals an emergent philosophy: Strategic thrift, not austerity—a nuanced understanding that aligns financial prudence with developmental foresight.

The Human Development Narrative: Training as Empowerment

The human development narrative revolves around employees' stories—their experiences, challenges, and transformations through training participation. These narratives underscore that training transcends economic rationality; it touches identity, confidence, and social mobility.

Workers from various industrial clusters described training as an "opportunity to rise." Many employees from lower-income or rural backgrounds associated training with dignity of work, professional recognition, and self-efficacy.

"After attending the safety and quality sessions, I felt more confident speaking to clients and engineers," said one machine operator.

Such expressions illustrate how skill development enhances not only performance but psychological ownership. The human development narrative situates training as a process of empowerment and belonging, echoing the tenets of Human Capital Theory—that investment in people yields returns far beyond financial gains.

In the broader narrative synthesis, this dimension connects economic logic with ethical and social purpose. It reminds policymakers and HR practitioners that the most sustainable growth arises from developing people, not just processes.

The Strategic Narrative: Training as an Adaptive Strategy

The strategic narrative emphasises how MSMEs leverage training as a response mechanism to external change — market volatility, technological advancement, and policy reforms. The narrative evidence suggests that MSMEs adopting continuous learning cultures exhibit greater resilience and adaptability.

Employers who participated in structured training initiatives reported improved market positioning and quality certifications, such as ISO compliance, which in turn opened new business opportunities. Employees in such firms demonstrated greater retention and loyalty, perceiving themselves as partners in progress rather than mere labour resources.

Strategically, training serves as a risk mitigation mechanism, buffering enterprises from obsolescence. As one entrepreneur explained:

"The more we train our people, the less we panic when machines or clients change."

Thus, in narrative synthesis, the strategic dimension becomes a narrative of preparedness—one that aligns with the Systems Thinking paradigm, emphasising feedback loops and adaptability as keys to long-term viability.

Interconnections among Narratives

The narrative synthesis reveals that these three strands—economic, human, and strategic — are not isolated. They interact dynamically, producing feedback cycles that reinforce or weaken the overall learning ecosystem of an MSME.

For instance, cost-efficient training programs (economic narrative) build employee motivation (human narrative), which in turn enhances innovation and market readiness (strategic narrative). Conversely, neglecting one dimension destabilises the system — excessive cost-cutting weakens morale; unstructured training undermines strategic outcomes.

The Cost–Skill Convergence Model (CSCM) captures this interconnectivity by proposing that the alignment of financial, cognitive, strategic, and ethical dimensions generates cost intelligence — a form of managerial wisdom that balances short-term constraints with long-term gains.

Narrative Mapping and Visual Representation

In constructing the narrative synthesis, a conceptual map was developed to visually represent the relationships between cost, training, and skill outcomes. Though qualitative in essence, this mapping reflects a systems model where each dimension feeds into a central learning node:

i. Inputs: Financial resources, trainer expertise, employee time.

ii. Processes: Training delivery, experiential learning, feedback mechanisms.

iii. Outputs: Skill enhancement, innovation, and performance improvement.

iv. Outcomes: Organisational sustainability, competitiveness, and social impact.

This visualisation aligns with systems-based HR frameworks, reinforcing that training investment decisions are not linear but cyclical — involving continuous reflection and recalibration.

Policy and Managerial Implications

From the synthesised narratives, several managerial and policy implications emerge:

i. *Institutional Support for MSMEs*: Local industry associations and government agencies must subsidise structured training programs, especially for micro and small enterprises that cannot afford in-house trainers.

v. *Strategic Cost Management*: MSME owners should view training as part of their strategic

investment portfolio rather than discretionary expenditure. Cost audits should include a qualitative measure of human capital improvement.

vi. *Customised Learning Approaches*: Training modules should be tailored to enterprise size, employee literacy, and industry type. For example, on-the-job simulations may be more effective than formal classroom models for semi-skilled workers.

vii. *Digital and Hybrid Learning Models*: As digitalisation advances, MSMEs can adopt blended learning using affordable online tools, reducing costs while expanding access.

viii. Monitoring and Evaluation Frameworks: Periodic evaluation of training outcomes — using both quantitative KPIs (productivity, quality metrics) and qualitative indicators (employee morale, innovation behaviour) — ensures cost-effectiveness and accountability.

These implications reflect a pragmatic pathway for MSMEs seeking to harmonise cost constraints with skill development imperatives.

Academic Contributions

From an academic standpoint, this research contributes to HRM and organisational behaviour literature in three major ways:

i. Contextualising Training Economics within MSMEs: The study expands Human Capital Theory into micro-enterprise settings, where cost-benefit equations are complex and resource scarcity is acute.

ix. Introducing the Cost–Skill Convergence Model (CSCM): By synthesising multiple theoretical frameworks, CSCM provides a unified conceptual lens to understand how cost, learning, and strategic goals intersect in small-scale enterprises.

x. *Bridging Quantitative and Narrative Paradigms*: The integration of narrative analysis with cost-based assessment offers a holistic approach — recognising that behind every financial decision lies a human story shaping organisational destiny.

Limitations and Future Research Directions

Despite its comprehensive nature, the narrative analysis faces certain limitations. First, the findings are context-specific — focused on MSMEs in Nagpur District — and may not generalise to large enterprises or different cultural settings. Second, narrative interpretation involves subjectivity; future studies could triangulate qualitative insights with quantitative cost-benefit models for greater robustness.

Future research may also examine sectoral variations, exploring how training cost dynamics differ across manufacturing, services, and technology-based MSMEs. Additionally, longitudinal studies could track how skill enhancement translates into sustained productivity gains over time.

The Cost–Skill Convergence Model itself invites empirical testing — researchers can operationalise its variables to measure how alignment between financial, learning, and ethical dimensions predicts firm performance.

CONCLUSION

The present study, titled *"Cost–Skill Nexus: A Theoretical and Empirical Study on the Impact of Employee Training Investment on Skill Development in MSMEs of Nagpur District,"* sought to understand the multifaceted relationship between training expenditure and employee skill enhancement within the context of MSMEs. Through extensive theoretical reflection and synthesis of existing academic and managerial perspectives, this research contributes to the ongoing discourse on human capital development, cost management, and organisational sustainability. The overall objective was to unravel how training cost,

often viewed as a burden, can be transformed into an enabler of skill-based competitiveness and long-term value creation.

At the core of this study lies the recognition that employee training is not merely a transactional activity; it is a transformational process through which knowledge, skills, and competencies are cultivated to support enterprise growth. In MSMEs—where resources are inherently constrained—training investments require careful justification. However, the evidence and analysis developed throughout this research demonstrate that training cost, when managed strategically, yields multifold returns in the form of enhanced productivity, employee motivation, innovation, and organisational resilience.

The conclusion of this study rests on several key insights derived from the comprehensive theoretical exploration and narrative synthesis. First, the traditional view of training as a discretionary expense must be replaced with a strategic investment perspective. MSMEs that adopt this paradigm shift are better positioned to foster learning-oriented cultures capable of adapting to dynamic business environments. Training thus becomes an integral part of strategic planning rather than a cost-cutting casualty.

Second, this research emphasises the interdependence between cost and capability. It is not the absolute quantum of investment that determines training effectiveness, but rather the alignment between cost allocation, learning outcomes, and business objectives. This alignment transforms training expenditure into "cost intelligence," where every unit of currency spent translates into measurable or intangible returns in the form of improved employee performance, higher retention, and skill-driven innovation.

Third, the study reinforces that skill development is both an economic and a social process. While the economic dimension focuses on efficiency, return on investment, and competitiveness, the social dimension underscores empowerment, self-efficacy, and dignity of labour. This duality positions employee training as a vital mechanism not only for enterprise growth but also for broader human development. In the context of Nagpur's MSME sector, where many employees come from socioeconomically diverse backgrounds, training functions as a bridge between economic participation and personal advancement.

Fourth, the findings underline that the effectiveness of training investment depends heavily on organisational culture and leadership orientation. Enterprises led by owners or managers who view learning as a strategic enabler tend to integrate training into daily operations. Such organisations exhibit continuous improvement, adaptability to market shifts, and stronger employee commitment. Conversely, where training is treated as a compliance requirement or an avoidable expense, its impact remains shallow and unsustainable.

From a managerial standpoint, the study suggests that MSMEs must develop structured approaches to training management. This includes conducting periodic needs assessments, adopting blended learning techniques, measuring post-training performance, and integrating learning outcomes into key performance indicators. A formalised training plan enhances transparency, accountability, and strategic alignment. Moreover, MSMEs can benefit from collaborations with government agencies, industry bodies, and educational institutions to access subsidised training programs, technical expertise, and skill development funds.

A broader theoretical reflection emerging from this research highlights that training costs are relational and contextual. The perception of cost is influenced by enterprise size, sectoral orientation, and leadership mindset. In smaller units, where liquidity is limited, even minimal expenditure can appear excessive. However, over time, such investments pay back through reduced error rates, enhanced quality, and greater operational consistency. This supports the premise that training cost should be reframed as deferred profit, not immediate expense.

Furthermore, this study has demonstrated that training contributes to the creation of organisational learning ecosystems. These ecosystems rely on feedback loops where employees continuously acquire, apply,

and refine knowledge. The sustainability of such systems depends not merely on funding but on the internalisation of learning values. When MSMEs foster open communication, encourage peer learning, and reward innovation, they convert the cost of training into a self-reinforcing cycle of competence and confidence.

The findings also underscore the importance of ethical and sustainable dimensions of training investment. Beyond profitability, MSMEs have a social responsibility to equip their workforce with employable skills that enhance their long-term livelihood security. Ethical training practices—such as inclusivity, accessibility, and respect for worker dignity—contribute to a positive brand image and societal goodwill, further reinforcing organisational legitimacy in local and global markets.

In the Indian MSME context, especially within Nagpur District, government initiatives such as Skill India Mission and MSME Development Schemes provide a supportive ecosystem for enterprises seeking to improve their workforce capabilities. However, the utilisation of these schemes often remains suboptimal due to limited awareness and administrative complexity. Therefore, policy reforms should focus on simplifying access to training subsidies, promoting cluster-based learning initiatives, and incentivising firms that invest consistently in employee development.

The theoretical and narrative exploration presented in this study also reveals that training cost effectiveness must be evaluated beyond short-term ROI metrics. Quantitative measures like productivity or profit increase capture only part of the picture. Qualitative dimensions—such as enhanced problem-solving, communication, and teamwork—form the foundation for innovation and long-term competitiveness. Hence, performance measurement systems in MSMEs must integrate both tangible and intangible learning outcomes.

Another significant conclusion is that employee participation and ownership are crucial for maximising training returns. When employees are actively involved in identifying skill gaps, designing learning modules, and evaluating outcomes, they become co-creators of knowledge. This participatory approach enhances engagement, accountability, and learning transfer, ensuring that training outcomes are not lost in routine operations. Thus, the success of any training investment ultimately depends on the degree of human involvement it fosters.

The study also offers a methodological insight. The integration of theoretical and narrative approaches in examining the cost–skilled relationship has demonstrated that complex organisational phenomena cannot be fully understood through quantitative data alone. Narrative analysis brings forth the lived experiences, motivations, and aspirations of MSME stakeholders, providing a more authentic and context-sensitive understanding of training dynamics. This interdisciplinary perspective enriches the HR management literature and sets a precedent for future mixed-method research.

The overarching conclusion, therefore, is that the nexus between cost and skill is not linear but dialectical—a relationship defined by tension and transformation. Training investment simultaneously constrains and enables, challenges and empowers, costs and rewards. It is through navigating this paradox that MSMEs evolve into learning organisations capable of enduring competitive turbulence. The real measure of training success lies not in cost reduction but in the sustained enhancement of employee capability and enterprise adaptability.

In the long term, MSMEs that embed training into their strategic DNA will emerge as agents of inclusive industrial development. They will not only contribute to economic growth but also foster equitable human development by transforming unskilled or semi-skilled labour into knowledge-driven professionals. This human-centred approach resonates with India's broader developmental vision of "Atmanirbhar Bharat" (self-reliant India), where skill formation is the cornerstone of national productivity.

From a scholarly standpoint, this research reaffirms that Human Capital Theory remains a vital framework, yet it must evolve to accommodate modern realities of cost optimisation, technological change, and social responsibility. By bridging classical economic theories with contemporary HR practices, this study enriches academic discourse on training and development in emerging economies.

In conclusion, the Cost–Skill Nexus represents more than a managerial concern—it is a philosophical statement about the value of human growth. Training, when pursued with clarity of purpose and ethical intent, becomes an act of empowerment that transcends financial constraints. The MSMEs of Nagpur District exemplify this transformation: those who invested wisely in training not only survived market fluctuations but thrived through innovation and loyalty.

Ultimately, the lesson for scholars, policymakers, and practitioners is clear: Investing in people is the most strategic cost any organisation can incur. Training is not an expenditure to be minimised but a legacy to be cultivated—one that continues to yield dividends in the form of knowledge, creativity, and social progress long after the financial ledger has closed.

REFERENCES

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120. https://doi.org/10.1177/014920639101700108

Becker, G. S. (1993). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (3rd ed.). University of Chicago Press. https://doi.org/10.7208/chicago/9780226041223.001.0001

Garavan, T. N., Carbery, R., & Rock, A. (2012). Mapping talent development: Definition, scope and architecture. *European Journal of Training and Development, 36*(1), 5-24. https://doi.org/10.1108/03090591211192601

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal, 17*(S2), 109-122. https://doi.org/10.1002/smj.4250171110

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation.* Oxford University Press. https://doi.org/10.1093/oso/9780195092691.001.0001

Schultz, T. W. (1961). Investment in human capital. *The American Economic Review, 51*(1), 1-17.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization.* Doubleday.

Argyris, C., & Schön, D. A. (1978). Organizational Learning: A Theory of Action Perspective. Addison-Wesley.

Atkinson, J., & Meager, N. (1994). Running to stand still: The small firm in the labour market. Employment Department Research Paper No. 91.

Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. Personnel Psychology, 41(1), 63–105.

Bandura, A. (1977). Social Learning Theory. Prentice Hall.

Bansal, P. (2005). Evolving sustainably: A longitudinal study of corporate sustainable development. Strategic Management Journal, 26(3), 197–218.

Bass, B. M. (1985). Leadership and performance beyond expectations. Free Press.

Bertalanffy, L. von. (1968). General System Theory: Foundations, Development, Applications. George Braziller.

Blau, P. M. (1964). Exchange and Power in Social Life. Wiley.

Boyatzis, R. E. (1982). The Competent Manager: A Model for Effective Performance. Wiley.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. Journal of Management, 31(6), 874–900.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American Sociological Review, 48(2), 147–160.

Ebbinghaus, H. (1885). Memory: A Contribution to Experimental Psychology. Teachers College, Columbia University.

Elkington, J. (1997). Cannibals with Forks: The Triple Bottom Line of 21st Century Business. Capstone.

Freeman, R. E. (1984). Strategic Management: A Stakeholder Approach. Pitman.

Gagné, R. M., & Medsker, K. L. (1996). The conditions of learning: Training applications. Wadsworth Publishing.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader–member exchange (LMX) theory of leadership over 25 years. Leadership Quarterly, 6(2), 219–247.

Holton, E. F. (1996). The flawed four-level evaluation model. Human Resource Development Quarterly, 7(1), 5–21. Imai, M. (1986). Kaizen: The Key to Japan's Competitive Success. McGraw-Hill.

Jerez-Gómez, P., Céspedes-Lorente, J., & Valle-Cabrera, R. (2005). Organizational learning capability: A proposal of measurement. Journal of Business Research, 58(6), 715–725.

Kahneman, D. (2011). Thinking, Fast and Slow. Farrar, Straus and Giroux.

Kaplan, R. S., & Norton, D. P. (1992). The Balanced Scorecard—Measures that drive performance. Harvard Business Review, 70(1), 71–79.

Keynes, J. M. (1936). The General Theory of Employment, Interest and Money. Macmillan.

Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. Journal of ASTD, 13(3), 21–26.

Kolb, D. A. (1984). Experiential Learning: Experience as the Source of Learning and Development. Prentice Hall.

Levin, H. M., & McEwan, P. J. (2001). Cost-Effectiveness Analysis: Methods and Applications. Sage Publications.

Locke, E. A., & Latham, G. P. (1990). A Theory of Goal Setting and Task Performance. Prentice Hall.

McCall, M. W., Lombardo, M. M., & Eichinger, R. W. (1996). The Career Architect Development Planner. Lominger.

McCracken, M., & Wallace, M. (2000). Exploring strategic maturity in HRD: Rhetoric, aspiration or reality? Journal of European Industrial Training, 24(8), 425–467.

Molenda, M. (2003). In search of the elusive ADDIE model. Performance Improvement, 42(5), 34–37.

Noe, R. A. (2020). Employee Training and Development (8th ed.). McGraw-Hill Education.

Phillips, J. J. (1996). ROI: The search for best practices. Training & Development, 50(2), 42–47.

Phillips, P. P., & Phillips, J. J. (2016). Handbook of Training Evaluation and Measurement Methods (4th ed.). Routledge.

Piaget, J. (1970). Psychology and Epistemology: Towards a Theory of Knowledge. Penguin Books.

Samuelson, P. A., & Nordhaus, W. D. (2001). Economics (17th ed.). McGraw-Hill.

Skinner, B. F. (1953). Science and Human Behavior. Macmillan.

Spencer, L. M., & Spencer, S. M. (1993). Competence at Work: Models for Superior Performance. Wiley.

Swanson, R. A., & Holton, E. F. (2001). Foundations of Human Resource Development. Berrett-Koehler.

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. Cognitive Science, 12(2), 257–285.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533.

Trist, E. L., & Emery, F. E. (1959). The causal texture of organizational environments. Human Relations, 12(1), 21–32.

Vroom, V. H. (1964). Work and Motivation. Wiley.

Vygotsky, L. S. (1978). Mind in Society: The Development of Higher Psychological Processes. Harvard University Press.

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. Journal of Management, 18(2), 295–320.

Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource-based view of the firm. Journal of Management, 27(6), 701–721.