Transforming Learning and Development Practices to Prepare the Workforce for the Future of Work: A Qualitative Study from Bangladesh

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Abstract: This study explores how organizations are transforming their Learning and Development (L&D) practices to strategically prepare for the future of work. A qualitative research design was adopted in the form of in-depth interviews with forty-nine HR professionals from various industries to understand the changing L&D strategies. Here, purposive sampling was employed to recruit the respondents positioned to speak directly to organizational L&D practices. To ensure sectoral variation, participants were drawn from multiple organizations within each sector. The findings show a move towards aligning L&D with wider business goals, a focus on digital skills, leadership development, and self-directed learning via e-learning platforms. Findings also reveal a shift toward integrating L&D with overall business objectives, emphasizing digital skills and leadership development. Organizations are fostering a culture that recognizes and supports continuous employee learning while increasingly linking learning outcomes with talent management and performance appraisal. Despite progress, challenges persist in the ability to quantify L&D's impact on business outcomes. The study adds new perspectives by situating global L&D trends within the context of their Bangladeshi organizational environment, which has been underrepresented in empirical research. Practically, the study demonstrates the importance of developing L&D cultures that are fit for the future in order to develop agile, future-ready workforces in the face of ongoing technological and marketplace upheaval and assist the HR professionals and management in developing inclusive learning strategies capable enough to foster employee engagement, digital capability and long-term employability in order to have both a sustainable and future-ready workforce for Bangladesh.

Keywords: Future of Work, Learning and Development, Transformation, Qualitative research, Bangladesh.

1. Introduction

The global emergence of the Future of Work (FoW) is increasingly being the most important transformation for the people and the organizations (Shahriar, 2025), with the technological disruption, evolving workforce dynamics, and the shift toward more flexible, digitized, and hybrid models of employment. As work becomes more flexible, remote, and dependent on technology, it is important to focus both on innovation that ensures the sustainability of businesses and prepare

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the employees for the transformation as well. In the context of Bangladesh, this connection takes on critical significance for all, including organizations, employees, HR professionals, government and institutions. As Bangladesh transitions toward a middle- and high-income economy (Momen, 2022), the question is not merely how the nature of work is changing, but whether the future of work will be inclusive, fair, and sustainable for all. It is a fact that the country's labor market is both demographically young and economically transitional marked by the expansion of digital services, shifting employability skill sets, emergence of digital learning and increasing integration into global value chains.

Here, this paradigm shift calls for an evolution in learning and development (L&D) practices in organizations-shifting away from static training experiences and adapting to more agile (Eva et al., 2024), customized, and tech-supported learning environments (Baber, 2020). In several countries, including developing economies such as Bangladesh, this transition is critical and challenging due to various issues concerning infrastructure, policy, education systems, and organizational preparedness.

Bangladesh, with its youth population and emerging digital economy, stands at a critical juncture in its workforce development journey (Sultana et al., 2025), where organizations have to take the lead to develop their workforce according to the changing nature of work and culture worldwide (Ferreira et al., 2017). While the government and educational organizations are collaboratively working on changing the educational curriculum from primary to higher education levels, there is a huge gap between these efforts and the unmatchable speed of transformation of work (Shahriar et al., 2023). This gap highlights the need for a strategic transformation of L&D practices in the organizations that not only addresses current skill deficits but also anticipates future competencies and sustainability of the organizations.

Guiding constructs include individual learning agility and digital self- efficacy; despite this rich theoretical base, existing work in Bangladesh tends to treat training as discrete events, overlooks firm- level L&D practices to system- level constraints and enablers. The gap, therefore, is a cross- level, empirically grounded account of how L&D practices are being transformed to prepare workers for the future of work. This study addresses that gap by integrating these constructs into an inductive explanation of change processes across sectors. This specific study investigates the transformation of L&D practices in Bangladesh to meet the demands of the future of work.

This qualitative work adds an important voice to the 'future of work' discourse by turning attention toward Bangladesh, a fast-digitizing, export-oriented economy in the Global South. Future Learning and Development (L&D) systems in this region are under-researched. Instead of listing generalized skill gaps, the paper probes how firms, educators, and employees are reorganizing learning and development practices in light of automation, platform-based working, and a post-pandemic hybrid workplace.

2. Literature Review

2.1 Arrival of Future of Work (FoW)

In recent years, the Future of Work (FoW) has garnered significant academic and policy attention (Dries et al., 2025) due to the rapid evolution of technological advancements (Bandi et al., 2020), globalization, demographic shifts, and sociopolitical dynamics (Lynn et al., 2023). Some believe this growing interest may be overhyped, pointing out that the idea of the 'future of work' is not new—after all, the future simply refers to the time that comes after the present, which has always been the case (Schoemaker, 2020). To support focused research, it is suggested that clear definitions of the terms 'future' and 'work' need to be established (Dries et al., 2025). The world is changing, and so are the ways we work and do things, as a result, work itself is evolving. To stay competitive and achieve long-term sustainability, organizations must adapt and keep pace with these ongoing changes (Shahriar, 2025).

Researchers, organizations, educational institutions, and even governments are still trying to fully understand the changing demands of the future of work (Yang et al., 2024). This is because new technologies and trends are emerging every day to reshape how work is done (Shahriar, et al., 2022). Powerful tools like artificial intelligence (AI) may even make some jobs obsolete, adding to the uncertainty and urgency to adapt (George, 2024).

2.2 FoW from concept to reality

The FoW is shaped by automation, digitization, platform coordination, global value chains, and post‑ pandemic shifts toward hybrid work (Fu, 2020). These forces change not only which skills are needed but also how skills are produced, maintained, and recognized. In emerging economies such as Bangladesh, where export sectors, SMEs, and a large informal workforce coexist, traditional, course centric training is often too slow and too detached from day‑ to‑ day tasks (Raihan, 2024). Contemporary literature therefore pivots from one‑ off training events to learning systems: organizations and ecosystems that create continuous, work embedded learning opportunities, convert informal learning into recognized credentials, and enable mobility across roles and sectors (Wang, 2025). Recent global studies indicate that technological change and new forms of work will reshape work or may even eliminate many jobs; thus, the policy response must prioritize lifelong learning for all, portable training rights, and inclusive access to reskilling (Song, 2024).

For a developing nation like Bangladesh, this highlights the need to move from episodic skill mapping, need assessment, training to learning systems that continuously generate skills (George, 2023). At the organizational level, organizational learning and dynamic capabilities frame how firms adapt L&D for turbulent contexts (Easterby-Smith et al., 2008). The dynamic capabilities view (Teece, et al., 1997) highlights sensing opportunities, seizing them, and transforming resources, capabilities that L&D can cultivate and learning happens in   technology‑ mediated   workplaces.   Socio‑ technical   systems   theory

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emphasizes jointly optimizing tools, tasks, and people rather than treating technology adoption as a purely technical project.

2.3 Transformation of Learning & Development

Learning & Development (L&D) is crucial for organizational success (Ferreira et al., 2017), particularly in emerging economies like Bangladesh (Sultana, et al., 2018). Across economies, work is being reshaped by rapid digitization, automation, platform coordination, global value chains, the green transition, and shifting demographics (Suntsova, 2024). Routine tasks, manual and cognitive, are increasingly performed by software and smart machines, while remaining human tasks concentrate on problem framing, judgment under uncertainty, interaction with intelligent tools, and the social coordination of work (Babashahi et al., 2024). Concurrently, shocks like pandemics normalized hybrid and remote arrangements, requiring workers to manage time, collaborate across distance, and maintain well-being in fluid environments (Yang, Shao, & Zhao, 2025). In this context, one-off, course centric training models are too slow; organizations and education systems need continuous, work embedded learning that updates capabilities at the pace of change.

As organizations transition to digital and knowledge-based economies, L&D plays a central role in upskilling employees, enhancing workforce productivity, and ensuring business sustainability (Ellström et al., 2018). However, in 2025, rapid technological advancements, economic uncertainty, and shifting labor market dynamics have made HRD more complex (Collin et al., 2021). Thus, learning and development, human resource capacity development have been an area of interest for many researchers in recent years (Boomaars et al., 2018).

Historically, L&D was very much centered on formal classroom sessions, set schedules, and a top-down approach which concentrated on more immediate skill gaps (Shahriar et al., 2023). This world has changed with the advent of the digital economy, globalization and the requirement for ongoing reskilling in a rapidly changing work environment (Kwon et al., 2024). Learner-centric approaches with the help of Learning Management Systems (LMS) (Rajan and Natarajan, 2024), mobile learning apps (Pillai and Sivathanu, 2018), bite-sized microlearning modules, and content curated by AI have become part and parcel of today's L&D (Kumar and Mittal, 2024), to provide personalized, just-in-time learning experience to employees. Additionally, the adoption of data analytics and learning experience platforms for monitoring progress, measuring learning impact, and linking training initiatives to strategic business objectives is increasing (AlMazrouei, et al., 2024).

2.4 Designing Effective Learning and Development programs

Designing effective Learning and Development (L&D) programs requires a strategic and learner-centric approach that aligns with organizational goals and addresses the evolving needs of the workforce, in that regard, Mustafa (2013) suggested ten characteristics to design effective learning and development programs, these characteristics are

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1. Align learning and development with strategic direction

2. Control learning and development activity

3. Develop the learning and development team

4. Quantify learning and development

5. Seek external accreditation and recognition

6. Involve senior leadership

7. Establish a heightened profile

8. Integrate technology in learning

9. Model best practice

10. Move the function outside its comfort zone

Mustafa's (2013) ten characteristics for effective L&D design remain relevant today. Despite changes in technology and workforce needs, aligning L&D with strategy, involving leadership, integrating technology, and measuring impact are still essential. These principles continue to guide organizations in creating adaptive, high-impact learning programs.

Shahriar et al. (2023) found that e-learning and flexible learning options have gained significant popularity, allowing employees to learn at their own pace and apply their knowledge more effectively within the organization. Organizations are increasingly recognizing and rewarding these self-directed learning efforts (Agrawal et al., 2017), reinforcing employee motivation and aligning personal development with organizational goals (Syed and Mohd Abdul, 2023). Thus, learning becomes an ongoing, integrated part of the work environment, driving both individual growth and collective progress (Rathnasekara et al., 2025).

In this study, the author will explore these emerging trends by examining recent data to understand how employees perceive flexible, work-based, and e-learning opportunities, and how these learning approaches contribute to individual growth and organizational development.

3. Research Objective

The objective of this research is to examine how Bangladeshi organizations are responding to these changes by identifying the emerging skills required, the innovative L&D strategies being implemented, and the challenges faced in aligning learning initiatives with future workforce needs.

4. Research Methodology

A qualitative research approach was adopted for this exploratory research, as Creswell (2012) mentioned, qualitative research is particularly suited for developing an in-depth understanding of a phenomenon. As this study seeks to explore an area where limited prior knowledge exists and is exploratory in nature, a qualitative research approach was adopted. To achieve the study's objectives, qualitative data were gathered through in-depth interviews. This

approach facilitated an open and engaging dialogue, allowing participants to share their views openly. The interviews were conducted with professionals from human resources (HR) departments across various organizations, especially those actively engaged in learning and development initiatives.

For this study, 49 HR practitioners were selected purposely based on their expertise in training, organizational culture, and implementation of learning and development initiatives, employed in diverse sectors, including multinational corporations, banks, non-bank financial institutions, and telecommunications companies, where they hold key roles in driving L&D strategies. The insights gathered from these HR professionals provided valuable understanding of current practices, challenges, and perceptions regarding employee development. The following table 1 presents the profile of the interviewees:

Table 1: Demographic distribution of the respondents

The Sample Size, N=49				
Particulars		Frequency	Particulars	Frequency
Sex	Female	28	MTO-HR	1
	Male	21	Executive	6
			Senior Executive	9
Location	Dhaka	40	Assistant Manager	11
	Chattogram	9	Deputy Manager	7
			HR Business Partner	2
Type of organization	E-commerce & Retail	1	Manager	3
	FMCG	5	Senior Manager	2
	RMG	12	Assistant General Manager	1
	Telecom	4	Deputy General Manager	3
	Bank	7	General Manager	3
	NBFI*	4	Chief Human Resources Officer	1
	Advertising Agency	1		
	BPO**	4	Less than 1 Year	2
	Pharmaceutical	3	1-2 Years	6
	NGO/Development	3	3-4 Years	11
	IT & Software	2	5-6 Years	10
	Healthcare Services	2	7-8 Years	13
	Transport	1	More than 8 Years	7

*NBFI= Non-Bank Financial Institution; **BPO= Business Process Outsourcing
Source: Author, Interview Analysis

The researcher personally transcribed, coded, and categorized the responses to identify recurring patterns, themes, and insights. The manual approach facilitated a deeper engagement with the data and maintained a close connection between

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the interpretations and the participants' narratives. The researcher repeatedly reviewed the transcripts to refine the themes and draw meaningful connections that contributed to value creation within the study's context.

The interviews were conducted over a period of approximately six weeks. Each interview lasted between 45 to 60 minutes, depending on the availability and engagement level of the participants. The interviews were conducted both online (via video conferencing platforms) and offline (face-to-face), based on participants' preferences and convenience. No monetary reimbursement or incentives were provided; however, participants were assured of confidentiality and were informed that their insights would contribute to advancing understanding in the field of learning and development. The data collection took place across major urban centers in the country, including Dhaka and Chattogram, where a high concentration of corporate organizations and HR professionals is present.

5. Findings

The examination of the in-depth interview data with the HR practitioners has demonstrated some significant changes in Learning and Development (L&D) practices over past years as organizations are getting future ready for the world of work.

5.1 L&D as a Strategic HR Function

82% of the HR professionals surveyed indicated that their company's L&D strategies are now connected to the company's overall mission and aligned with the company's long-term goals. It is no longer this thing that's done in spaced-out workshops or ad hoc moments; it's building this really strategic plan of mapping it to where the business wants to be in 5 or 10 years.

An HR professional working as CHRO at an RMG company mentioned that

> "*Every training we now do is mapped to a business priority—whether that's innovation, digital growth, or market leadership. If it does not advance our vision, we are not going to fund it.*" -(Respondent_13- Male, CHRO-RMG, Dhaka)

This alignment includes converting strategic visions into actionable competency frameworks, emphasizing future skills such as adaptability, digital fluency, and connecting learning investments to organizational KPIs.

76% of respondents agreed that L&D is at the heart of their digital transformation. In many instances, L&D is responsible for making sure employees have the necessary digital tools, managing culture change, and onboarding new platforms like ERP, CRM, AI tools, etc.

According to 79% of those interviewed, one of the key themes that surfaced was the extent to which L&D has become integrated with talent strategy. It is the key driver in the ability to recruit, retain, and develop top talent. Companies are creating bespoke learning paths for tomorrow's leaders, succession plans, and onboarding experiences specifically for business-critical roles.

68% of HR professionals reported that L&D teams are collaborating more closely to create or lead the development of competency frameworks. These guides facilitate the articulation of business requirements into the specific skills and behaviors common at each level.

This includes:

  i.   Technical and functional skill matrices

  ii.   Behavioral competencies aligned with culture

  iii. Strategic priorities aligned to leadership capabilities

72% of respondents chose leadership development as a priority for L&D, and 80% expect to invest more in it. Instead of just developing current managers, companies today are grooming leaders of the future from the get-go in various learning styles blended learning, coaching, cross-functional projects, and time spent in innovation labs. This is linked to long-range organizational resilience, succession planning, and high-potential employees wanting to stay.

5.2 Adoption of E-learning

The adoption of e-learning was a significant change in organizational learning and development. During the COVID-19 pandemic in 2020-2022, companies faced significant challenges in maintaining their team training. That's when e-learning really took off, becoming a lifeline for remote skill development (Nair et al., 2025). It wasn't just a stopgap, though people realized online platforms were flexible, affordable, and could fit anyone's learning style. Employees started diving into self-initiated learning, from virtual workshops to hands-on simulations, to level up their skills on their own terms. At that time online training sessions, paid virtual workshops, and MOOC-based learning became very popular.

Interestingly, at the same time, organizations also started to recognize these types of skill development initiatives by the employees. Approximately 96% of respondents stated that their management genuinely appreciates employees' efforts in e-learning. Further analysis of the interviews revealed the most popular e-learning practices and their impact on business outcomes (Table 2).

Table 2: E-learning practice by employees and impact on business

Platform	Learning Approach	Popular Skills Acquired	Business Alignment	Strategic Business Impact
LinkedIn Learning	Professional, self-paced courses	Communication, Leadership, Strategic Thinking, Time Management, DEI Awareness	HR, L&D, Management, Cross-functional Collaboration	Builds leadership pipeline, improves collaboration, enhances employee engagement
Coursera	University-certified programs	Data Analytics, Project Management, Financial Planning, Sustainability, Data	Strategy, Finance, Operations, ESG Units	Data-informed decisions, project success, financial agility, ESG

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Platform	Learning Approach	Popular Skills Acquired	Business Alignment	Strategic Business Impact
		Analysis, Communication		alignment
Udemy for Business	Skill-focused microlearning	Excel, Python, Power BI, Public Speaking, Agile Methods, MS Office	Tech, Finance, Business Analysis, Operations	Improves technical capacity, empowers agile workflows, boosts productivity
YouTube	Open-access, visual learning	Presentation Techniques, Customer Service, CRM Tools, Soft Skills, Communication, Public speaking, Presentation	Customer Service, Marketing, Sales, Admin and others	Supports just-in-time learning, improves customer experience, increases brand confidence
Khan Academy	Free, academic-style modules	Financial Literacy, Basic Statistics, Logical Reasoning, Economics, Finance	Entry-level Training, Support Functions, Compliance	Strengthens foundational knowledge, reduces training costs
Microsoft Learn	Role-based technical paths	Azure Cloud Services, Microsoft 365, Cybersecurity Essentials	IT, Infrastructure, Digital Transformation	Accelerates cloud adoption, strengthens system security and operational efficiency
Internal LMS	Organization-specific learning	Company Policy, Product Training, Compliance, Culture Orientation, Operation, Manufacturing, Planning	All Departments	Ensures compliance, improves onboarding, strengthens organizational alignment
edX / FutureLearn	Academic and corporate blended	Artificial Intelligence, Sustainability in Business, Global HR Practices	Innovation, CSR, Sustainability, HRM	Drives innovation, supports long-term sustainable practices, enhances global competitiveness

Source: Author, Interview Analysis

Table 2 illustrates how employees are actively pursuing learning through common avenues of e-learning and how their training efforts correspond to business requirements. Platforms like LinkedIn Learning, Coursera, and Udemy are commonly used for a more structured learning of a specific skill. Employees are also picking up important skills in leadership, communication, data analysis, project management, and technical programs such as Excel and Python. These capabilities directly support the development of leadership capacity, efficiency of

operations, and data-driven decision-making in areas like HR, finance, operations, and strategy.

YouTube and Khan Academy serve different purposes at free of cost. YouTube is primarily used for quick, visual learning that cuts across tools, customer service, and soft skills to help employees in all roles-sales, admin, and marketing. Khan Academy is more academically focused, helping employees brush up on basic skills, like math, statistics, and logical reasoning helpful for an entry level job or a job in support.

Microsoft Learn enables staff to achieve certifications and practical skills in digital tools such as Google Ads, Analytics, Microsoft 365, and Azure. Such tools are essential for marketing and IT, as well as digital transformation objectives. Furthermore, companies rely on internal LMS software to introduce their employees to policies, compliance standards, product information, and culture-building exercises.

Employees are learning skills that are not only beneficial for their own personal development but are also what the organization needs strategically-be it to improve the customer experience, to enable innovation, or to move forward on digital transformation.

5.3 Recognition of employee learning efforts and outcomes

Interview data from HR professionals indicated a high level of organizational commitment to support and facilitate employee-led, self-initiated learning efforts. Approximately 90% of respondents reported organizations that actively value self-initiated learning by employees-on both informal and formal levels. Recognition tools include internal newsletters, callouts in team meetings, the annual appraisal note, digital badges, and posting accolades on social media.

In this regard one of the HR managers working in one of the largest banks in Bangladesh mentioned that-

> "*That LinkedIn certificate from a recognized body or a learning platform linked with top universities — if any of our employees earn it, we don't just congratulate them inside the office. We also post about it on our company's LinkedIn page to show appreciation. It makes the employee feel valued, and at the same time, it gives a good image of our company. So, it's really a win-win for both the employee and the organization,*" (Respondent-16 Female, HR Manager, Bank, Dhaka)

The interview analysis also found that such a learning culture is instrumental in reducing training costs and encouraging peer learning motivation. The workforce is becoming more responsible for its development, feeding greater independence from formal, top-down training. There is some correlation between the recognition of such efforts and higher engagement, lower attrition, and greater 'skill alignment' with the shifts taking place in the business. Just to recap, what I heard in the interviews is a definite evolution: learning amongst employees is no longer simply supported; it is heralded and magnified, and it has a key role for employer brand, skill building, and employee retention.

The key outcome areas influenced by self-initiated employee learning and explains how organizations are leveraging these outcomes to drive both individual and institutional success (Given in Table 3).

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Table 3: Self-Initiated Employee Learning outcomes

Outcome Area	Explanation of Impact
Training Cost Reduction	Reduces dependency on instructor-led training or external vendors as employees upskill through online platforms.
Faster Skill Development	Employees learn at their own pace, enabling just-in-time learning relevant to current job demands.
Motivation & Peer Learning	Recognized learners inspire others to follow suit, building a culture of shared growth and internal knowledge exchange.
Employee Branding	Employees gain visibility and credibility when they share certifications on platforms like LinkedIn.
Employer Branding	Organizations amplify these achievements via social media or intranet, showcasing a talent-driven culture.
Internal Recognition	Learners are appreciated in team meetings, newsletters, or recognition platforms, boosting morale and confidence.
Promotion & Career Growth	Certifications often contribute to internal mobility, better appraisals, or fast-tracked career paths.
Talent Retention	Recognized and engaged learners feel valued, increasing their loyalty and long-term commitment.
Alignment with Business Needs	Learning aligned with key business skills (digital tools, analytics, leadership) ensures employees are future-ready.
Employee-Led Innovation	Self-learners often bring in fresh ideas and tools they picked up from platforms like Coursera or Udemy.
Managerial Support	Supervisors and HR teams increasingly support learning by allocating time, budget, or visibility.
Inclusive Learning Culture	Recognition of all learners (junior to senior) promotes equity and a psychologically safe environment for development.

Source: Author, Interview Analysis

The effects of resourcing self-initiating learning promote clear, strategic outcomes, yet also have to be interrogated for the sake of sustainability. For

instance, lower training costs are a key advantage now that employees are utilizing online tools to self-upskill more than ever. But without that oversight, there's a danger that learning and business needs won't be perfectly aligned. Faster skill development and peer encouragement create more of a learning culture, but less visible employees can become disengaged if they are overlooked or constrained. Although platforms like LinkedIn have empowered employees to develop personal brands, this exposure also draws interest from outside recruiters-increasing retention risk. Employer branding boon-for organizations that promote employee successes If it comes from a real place (not just when the times are good) and continues beyond the close of a new deal.

In addition, you will raise spirits, but inconsistent inspiration breeds a sense of favoritism. Credentials have become more closely linked with career advancement and promotions; however, someone who is over reliant on certifications without validated performance may lead to a lack of long-term leadership in the pipeline. Lastly, employee-driven innovation and inclusive learning cultures are two strength areas but are dependent on strong management leadership, digital access, and equal policies. Therefore, recognizing self-initiated learning is more than a celebration of accomplishment; it is a strategic means of integrating it into the overall talent development and corporate expansion process.

5.4 Data-Driven L&D and ROI Focus

The research also demonstrates the move toward a data-inclined approach to learning and development (L&D), illustrating a significant sway from top management's quest for results-driven ROI. Around 90% of HR representatives have acknowledged the growing scrutiny of training expenses and the challenge for training departments to demonstrate a return on investment. A few organizations are now using learning analytics to monitor participation rates, assessment results, or course completions, but the vast majority of respondents reported surface-level and inconsistent current evaluation systems. The emphasis usually ends at attendance and feedback surveys and fails to move beyond performance improvement, behavioral change, or business impact.

One HR professional from the banking sector stated,

> "*We track who attended and what scores they received, but we still cannot measure how this training has benefited the business or contributed to employee growth*." (Respondent-14, Female, Senior Executive-Bank, Dhaka)

Another L&D head (Manager) of an IT organization expressed,

> "*We require more robust systems to connect learning to KPIs such as sales growth, customer retention, or innovation output*." (Respondent-48, Male, Manager-L&D, IT Firm, Dhaka)

The results imply an intention for ROI measurement is there; however, the capability gap remains wide. Strong evaluation mechanisms such as data dashboards and performance-linked metrics are either nascent or inconsistently utilized.

Many organizations also face the problem of lacking integrated HR systems and the necessary analytics capabilities to extract useful information from learning data. As a result, HR leaders are calling for investment in learning technology platforms, people analytics, and management training on how to measure the effectiveness of training, beyond attendance. If learning outputs cannot be directly linked to business outputs, L&D's strategic credibility may suffer in the eyes of business leaders.

5.5 Integration with Performance Appraisal

The findings from interviews with 49 HR professionals from various industries indicate that companies are starting to include learning and development efforts especially self-directed learning—in their official performance reviews. Although this linkage between the two is not yet prevalent everywhere, several companies are now recognizing learning accomplishments as critical evidence of employee drive, flexibility, and future prospects as employees.

Approximately 65% of respondents said their company acknowledges employees' certifications or learning accomplishments when offering performance appraisals, particularly when the learning is related to business goals or role-specific skills. This trend is particularly evident in sectors undergoing digital transformation, such as IT, banking, and telecom.

Meanwhile, around 4% of HR leaders were nervous about inconsistent execution, especially when not all managers were on board or there wasn't a strong tracking tool. Some companies still view learning as a "soft metric," relying on anecdotal references instead of scientific assessments. Others stressed the importance of clear frameworks and of digitalization, allowing more effective capturing, validation, and linking of learning data to performance.

Several respondents noted that 'learning milestones' are now included as KPIs with some milestones or developmental goals linked in for use in leadership/high potential tracks in my home unit. This reflects a change of attitude where learning is not viewed as something extra but as something that is crucial to performance and career development.

Table 4: Integration of L&D with Performance Appraisal

Integration Area	Description	Current Adoption Trend	Remarks / Critical Insights
Certification Recognition in Appraisal	Recognizing self-initiated learning (e.g., LinkedIn, Coursera) during performance reviews	Moderate to Growing	Often appreciated as a sign of initiative and commitment to growth; not always systematically tracked
Learning Milestones as KPIs	Including learning goals (e.g., course completions, digital skills) as part of KPIs	Emerging Practice	Seen in leadership pipelines and development plans; needs strong goal-setting culture

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Integration Area	Description	Current Adoption Trend	Remarks / Critical Insights
Career Progression Linked to Upskilling	Promotion or internal mobility influenced by completed learning pathways	Moderate	Helps build a learning-based progression system; must balance with performance-based promotion
Learning Summary in Self-Appraisal	Employees submit their learning activities and reflections as part of appraisal forms	Limited but expanding	Encourages self-awareness and documentation of growth; more common in creative/tech roles
Manager Evaluation of Learning Application	Managers evaluate how well employees apply newly acquired skills to real work	Informal to Formalizing	Depends on manager training and alignment with performance metrics
Points/Badges Impacting Reviews	Use of gamified systems (e.g., points, digital badges) to reward learning that feeds into reviews	Low but Piloting in Digital Firms	Seen in digitally mature firms; can drive healthy competition and recognition
Peer Validation of Learning Impact	Team or project peers acknowledge someone's learning contribution during review cycles	Rare and Experimental	Innovative, but needs trust and cultural readiness to be effective

Source: Author, Interview Analysis

The table 4 illustrates how companies are starting to integrate learning and development (L&D)-especially self-initiated learning-into performance appraisal systems. One of the most widely held practices is for HR professionals to acknowledge employee achievements, such as certifications, a clear indication for many of a commitment to enhance their skills. This integration is currently occurring in some companies, where learning is 'baked into' KPIs, particularly for high-potential employees or leaders in development.

Career development associated with upskilling is also on the rise, with promotions now more likely to take into account not only performance but also lifelong learning. A learning summary or reflection in the area of self-awareness or goal setting can be required in self-appraisal by some companies; this can help create better self-awareness and goal setting.

But higher-level practices like having managers evaluate applied learning or rewarding completion of gamified features (like badges or points) by changing performance appraisals are in their infancy and found only in digitally advanced organizations. Peer validation of learning impact is experimental and culturally bound on its trust and transparency.

6. Analysis & Discussion

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The research suggests that the value of learning and development is increasingly recognized by organizations, treating the advancement of people from 'something that is done in the margins' to a strategic, goal-oriented process that closely mirrors business objectives for growth. They don't see learning as something separate from work; they bring people development plans in line with their major strategic direction, and investments are made in skills development targeted at driving the innovation, the digital transformation, and the competitive edge that their organizations are seeking to secure. This strategic integration to focus on future readiness, however, carries with it the understanding that workforce skills need to adjust to the moving business landscapes.

HR practitioners recognize L&D as a key lever for managing digital transformation, ensuring that employees are equipped with the digital skills required and driving culture change through constant learning. In addition, the merger of L&D and talent management highlights its broader function in the organization as a tool to attract, retain, and cultivate high-potential talent. Tailored learning pathways and competency models are prime examples of how companies are dismantling strategy into specific capability requirements and leadership development—vital for building resistance in continually disrupted environments.

The rapid rise of e-learning platforms, prompted by the pandemic, represents a fundamental shift in the way employees discover and interact with learning. The widespread adoption of self-directed, digital learning signals a democratization of skill-building, in which employees drive their development and where businesses are dexterously leveraging these pursuits to fulfill the needs of the business. The variety of platforms employed emphasizes the complex nature of learning from basic skills to sophisticated digital literacies and leadership capacities, demonstrating the importance of flexible and tailored learning ecologies.

Employee learning recognition has become a key factor in developing an inclusive, success-inspiring learning culture. Recognition in the public domain in all forms not only improves personal morale and branding but also meets organizational purposes through continued alignment of growth and organizational goals. But, as with all changes in attitudes, close attention should be paid to avoid favoritism and to make efforts to ensure equal access and support for all employees.

However, organizations struggle with the ability to critically measure the value of L&D initiatives for businesses. Although some recognition exists regarding the need to factor ROI measures, current evaluation efforts are a great deal of the time prehistoric, concentrating on participation indicators instead of performance enhancement or organizational influence. This lag points to a requirement for more advanced analytics capabilities and for learning data to be integrated with wider HR and business systems to evidence the strategic value of L&D and shape resource investment.

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The use of learning achievements in formal performance management systems is slowly evolving; however, it is not yet uniform. Some businesses value certifications and learning milestones so highly that they influence employee appraisals and are linked to career paths and leadership initiatives. However, more sophisticated methods such as managers assessing applied learning, gamified rewards, and peer endorsement are nascent, demonstrating that cultural readiness and IT infrastructure are both essential drivers to wholeheartedly integrate learning into performance ecosystems.

In preparation for the future of work, organizations are focused on a complete transformation of their learning and development culture. They are moving beyond traditional episodic training to integrate continuous learning as a key feature of their ongoing business strategy. This transition entails focusing L&D programs directly on organizational goals and centering them on future-ready skills, including digital fluency, adaptability, and leadership. Through a combination of digital platforms and self-directed learning, businesses create a learning culture where employees drive their development and are empowered and valued by their employer. In addition, companies are more and more incorporating learning outcomes into performance management and talent development so that new skill acquisition can mean job advancement and business impact. This L&D culture in the making doesn't just produce a more agile workforce but a more resilient and innovative one, ready to out-thrive in the face of rapid technological and market changes.

7. Conclusion

This research indicates a massive shift in how businesses pursue learning and development strategies, navigating away from fragmented training interventions and toward systemic and strategically integrated approaches that are closely aligned with future workplace needs and business priorities. The transition towards a more agile workforce that is more competent and motivated is increasingly evident through examples such as the use of digital learning tools, focus on self-directed development, and incorporation of learning into talent management activities. Yet there are budding problems when it comes to quantifying the effect of L&D initiatives in spite of embedding these in performance systems as it should. In general, companies are well positioning themselves for future readiness by establishing a learning culture that perpetuates continuous skill evolution, leadership evolution, and infrastructure and business evolution.

8. Theoretical Contribution

The study introduces a practical explanation of how organizations in an emerging-economy context transform L&D to prepare the workforce for FoW. It reframes L&D from a set of courses to a dynamic, firm-level capability, which can be termed as work-embedded learning capability (WELC). WELC is the organization's capacity to generate, apply, and refresh skills continuously through

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the interaction of five elements: (1) strategic and technical transformation, (2) access and digital fluency, (3) track the learning and supervisory scaffolding, (4) value the learning and include in performance, and (5) recognition mechanisms, micro-credentials and recognition of prior learning that make learning visible and portable. This moves the literature beyond 'what skills are needed' toward how skills are systematically produced and renewed under real constraints.

9. Managerial implications

The study's insights point managers toward treating L&D as a core capability rather than a cost. Practically, this means linking every skills initiative to clear business outcomes, redesigning 'courses' into short, work-embedded cycles, and giving employees protected time to practice new methods on real tasks. Supervisors need simple coaching tools and accountability for follow-up so learning transfers into day-to-day routines, while teams benefit from a climate where questions and small experiments are safe. This study will also help the managers and HR to track a few lead indicators like learning time used and first-application rate alongside operating metrics that matter to each unit such as quality, turnaround time, customer outcomes. Finally, align technology, workflows, and incentives assure job aids, peer support, and role redesign, and work with external partners to keep content current and accessible for all staff, including those in smaller sites or on variable shifts.

10. Future Research Direction

Future research work might also investigate the validity of different learning analytics tools in measuring the true impact of L&D on the business results and performance of employees. Longitudinal research might explore the long-term impact of persistent investment in strategic L&D on resilience and innovation capability at the organizational level. Additionally, more research could look into the cultural and structural factors that influence how self-directed learning is adopted and used in formal performance management, particularly in diverse organizations. Investigating employees' experiences and obstacles to participating in digital learning could also inform the design of more inclusive and equitable L&D practices, which are supportive of the diversity and inclusion goals of the changing future of work.

References

Agrawal, V., Agarwal, S. and Agrawal, A.M. (2017), "Perception of employees toward e-learning service quality: exploratory factor analysis", Industrial and Commercial Training, Vol. 49 No. 7/8, pp. 350-356. https://doi.org/10.1108/ICT-06-2017-0042

AlMazrouei, H., Bodolica, V. and Zacca, R. (2024), "Learning goal orientation and turnover intention: an interplay between cultural intelligence and organisational commitment", International Journal of Organizational Analysis, Vol. 32 No. 7, pp. 1322-1357. https://doi.org/10.1108/IJOA-03-2023-3697

JUJBR

Babashahi, L., Barbosa, C. E., Lima, Y., Lyra, A., Salazar, H., Argôlo, M., Almeida, M. A. d., & Souza, J. M. d. (2024). AI in the Workplace: A Systematic Review of Skill Transformation in the Industry. Administrative Sciences, 14(6), 127. https://doi.org/10.3390/admsci14060127

Baber, H. (2020), Determinants of Students' Perceived Learning Outcome and Satisfaction in Online Learning during the Pandemic of COVID-19, Journal of Education and e-Learning Research, Vol. 7, No. 3, pp. 285-292, https://ssrn.com/abstract=3679489

Bandi, R. K., Klein, S., Madon, S., Monteiro, E., & Ranjini, C. R. (2020). The future of digital work: The challenge of inequality. In The Future of Digital Work: The Challenge of Inequality: IFIP WG 8.2, 9.1, 9.4 Joint Working Conference, IFIPJWC 2020, Hyderabad, India, December 10–11, 2020, Proceedings (pp. 3-10). Springer International Publishing

Boomaars, C., Yorks, L. and Shetty, R. (2018), "Employee learning motives, perceived learning opportunities and employability activities", Journal of Workplace Learning, Vol. 30 No. 5, pp. 335-350. https://doi.org/10.1108/JWL-01-2018-0020

Collin, K.M., Keronen, S., Lemmetty, S., Auvinen, T. and Riivari, E. (2021), "Self-organised structures in the field of ICT: challenges for employees' workplace learning", Journal of Workplace Learning, Vol. 33 No. 2, pp. 95-108. https://doi.org/10.1108/JWL-10-2019-0124

Creswell, J. W. (2012). Educational Research: Planning, Conducting and evaluating quantitative and qualitative research, (4th ed.). Pearson Education.

Dries, N., Luyckx, J., Stephan, U., & Collings, D. G. (2025). The Future of Work: A Research Agenda. Journal of Management, 51(5), 1689-1706. https://doi.org/10.1177/01492063251320025

Easterby-Smith, M., Antonacopoulou, E., Graça, M., & Ferdinand, J. (2008), Organizational learning and dynamic capabilities. In H. Scarbrough (Ed.), The evolution of business knowledge. Oxford University Press. https://doi.org/10.1093/oso/9780199229598.003.0004

Ellström, E. and Ellström, P.-E. (2018), "Two modes of learning-oriented leadership: a study of first-line managers", Journal of Workplace Learning, Vol. 30 No. 7, pp. 545-561. https://doi.org/10.1108/JWL-03-2018-0056

Eva, T.P., Akter, S., Zabeen, M. and Shahriar, S.H.B. (2024), Exploring the future of learning: understanding the innovation in learning from the perspectives of developing nation, Journal of Research in Innovative Teaching & Learning, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JRIT-04-2024-0095

Ferreira, M., Künn-Nelen, A. and De Grip, A. (2017), "Work-Related Learning and Skill Development in Europe: Does Initial Skill Mismatch Matter?", Skill Mismatch in Labor Markets (Research in Labor Economics, Vol. 45), Emerald Publishing Limited, Leeds, pp. 345-407. https://doi.org/10.1108/S0147-912120170000045010

Fu, X. (2020). Digital transformation of global value chains and sustainable post-pandemic recovery. Transnational Corporations, 27(2), 157–166. https://doi.org/10.18356/d30d9088-en

JUJBR

George, A. S. (2023). The ephemeral career: How technological change necessitates flexible employment. Partners Universal International Innovation Journal (PUIIJ), 1(5), 47–62. https://doi.org/10.5281/zenodo.10003775

George, A. S., (2024). Artificial Intelligence and the Future of Work: Job Shifting Not Job Loss. Partners Universal Innovative Research Publication (PUIRP), 02(02), 17–37. https://doi.org/10.5281/zenodo.10936490

Kumar, S. and Mittal, S. (2024), "Employee learning and skilling in AI embedded organizations – predictors and outcomes", Development and Learning in Organizations, Vol. 38 No. 4, pp. 11-15. https://doi.org/10.1108/DLO-11-2023-0249

Kwon, K., Jeong, S., Park, J. and Yoon, S.W. (2024), "Employee development and employee engagement: a review and integrated model", Career Development International, Vol. 29 No. 2, pp. 169-184. https://doi.org/10.1108/CDI-04-2023-0117

Lynn, T. G., Rosati, P., Conway, E., & van der Werff, L. (2023). The future of work: Challenges and prospects for organisations, jobs and workers. Palgrave Macmillan. https://doi.org/10.1007/978-3-031-31494-0

Momen, M.A., Shahriar, S.H.B., Naher, N., Nowrin, N. (2022), Unemployment During the Recent COVID-19 Pandemic: Exploring the Perspective of Fresh Graduates from a Developing Nation, Economics and Business, Vol 36, No 1, pp. 105 – 119, DOI: https://doi.org/10.2478/eb-2022-0007

Mustafa, E. (2013), "The ten characteristics of world- class learning and development", Human Resource Management International Digest, Vol. 21 No. 6, pp. 3-5. https://doi.org/10.1108/HRMID-08-2013-0056

Nair, M.S., Nair, J. and Chellasamy, A. (2025), "The impact of the COVID-19 pandemic on e-learning adoption in an emerging market: a longitudinal study using the UTAUT model", Journal of Asia Business Studies, Vol. 19 No. 3, pp. 822-844. https://doi.org/10.1108/JABS-07-2024-0373

Pillai, R. and Sivathanu, B. (2018), "An empirical study on the adoption of M-learning apps among IT/ITeS employees", Interactive Technology and Smart Education, Vol. 15 No. 3, pp. 182-204. https://doi.org/10.1108/ITSE-01-2018-0002

Raihan, S. (2024). Informal Institutions, the RMG Sector, and the Present Challenge of Export Diversification in Bangladesh. In S. Raihan, F. Bourguignon, & U. Salam (Eds.), Is the Bangladesh Paradox Sustainable?: The Institutional Diagnostic Project (pp. 101–136). chapter, Cambridge: Cambridge University Press.

Rajan, B. and Natarajan, S. (2024), "Deconstructing Value Creation in Indian Management Education: A Learner Journey Perspective", Hack-Polay, D., Lock, D., Caputo, A., Lokhande, M. and Salunkhe, U. (Ed.) Global Higher Education Practices in Times of Crisis: Questions for Sustainability and Digitalization, Emerald Publishing Limited, Leeds, pp. 287-309. https://doi.org/10.1108/978-1-83797-052-020241018

Rathnasekara, K., Yatigammana, K. and Suraweera, N. (2025), "Optimizing workforce competency through strategic e-learning: a framework for organizational empowerment", Strategic HR Review, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/SHR-12-2024-0096

JUJBR

Schoemaker, P. J. (2020). How historical analysis can enrich scenario planning. Futures & Foresight Science, 2 (1),1-13, . https://doi.org/10.1002/ffo2.35

Shahriar, S.H.B. (2025), "Future of work and talent development realities: a qualitative analysis from a developing country perspective", Journal of Management Development, Vol. 44 No. 2, pp. 178-193. https://doi.org/10.1108/JMD-04-2024-0119

Shahriar, S.H.B., Akter, S., Sultana, N., Arafat, S. and Khan, M.M.R. (2023), "MOOC-based learning for human resource development in organizations during the post-pandemic and war crisis: a study from a developing country perspective", Journal of Research in Innovative Teaching & Learning, Vol. 16 No. 1, pp. 37-52. https://doi.org/10.1108/JRIT-09-2022-0054

Shahriar, S. H. B., Alam, M. S., Arafat, S., Khan, M. M. R., Nur, J. M. E. H., & Khan, S. I. (2022), Remote Work and Changes in Organizational HR Practices During Corona Pandemic: A Study from Bangladesh, Vision, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1177/09722629221115234

Song, Y. (2024). Impact of technological advancements on work and employment patterns. Journal of Advanced Sociology, 5(2), 1–14. https://doi.org/10.47941/jas.1856

Sultana, N., Eva, T.P., Akter, S. and Shahriar, S.H.B. (2025), "Exploring new realities in hybrid learning during post-COVID-19: perspectives from private and public universities in Bangladesh", Asian Education and Development Studies, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/AEDS-03-2024-0067

Sultana. N, Shahriar, S. H. B., Akter, S. and Rahman, M. (2018), Evaluating the effectiveness of Facebook as the source of job advertisements in Bangladesh: An empirical study, Academy of Marketing Studies Journal, Vol. 22, Issue 2, pp. 1-16

Suntsova, O. (2024). Digital transformation of the global economy: Challenges and opportunities. Financial and Credit Systems: Prospects for Development, 3(14), 87–100. https://doi.org/10.26565/2786-4995-2024-3-08

Syed, F.U. and Mohd Abdul, S. (2023), "Employees' perception towards e-learning: an exploratory study in the information technology sector in India", Industrial and Commercial Training, Vol. 55 No. 3, pp. 355-363. https://doi.org/10.1108/ICT-11-2022-0082

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

Wang, K.-H. (2025). Sustainable e-learning? A flash in the pan or a lasting change for workers. World Development Sustainability, 7, 100258. https://doi.org/10.1016/j.wds.2025.100258

Yang, C., Luo, Z., Xu, N. and Tang, C. (2024), "Fostering career crafting by developmental HR practices: the mediating role of future work self and moderating role of AI awareness", Career Development International, Vol. 29 No. 6, pp. 641-655. https://doi.org/10.1108/CDI-08-2023-0303