International Labour Organization

ILO brief

Research Brief

Executive Summary

Methodologies for the costing of lifelong learning

Key Recommendations

This summary synthesises the findings and recommendations of the research study "Methodologies for the costing of lifelong learning". The publication aims to support ILO constituents, including governments, workers and employers' organisations, particularly in lower and middle-income countries, to efficiently and equitably allocate the costs and financing for lifelong learning activities at national and sectoral level. To enhance LLL with transparent accountability and effective costing mechanisms, the study puts forward the following key recommendations:

- **A lightweight and transparent cost accounting model is essential, particularly for LMICs**, prioritizing simplicity, practicality, and adaptability, ensuring cost-efficient and transparent estimations that build trust and accountability among stakeholders. Transparent and cost-efficient methods allow governments and practitioners to manage resources effectively, ensuring investments in LLL activities yield measurable benefits, such as increased employability and social inclusion.
- **Frameworks should adopt simple yet robust solutions** that integrate both quantitative cost estimates and qualitative educational outcomes, ensuring financing models account for long-term socioeconomic benefits.
- **LLL financing must integrate with green and digital transitions**, recognizing their role in broader economic shifts. Cost models should account for these transitions to ensure LLL programmes remain relevant amidst rapid technological and environmental changes. This approach supports the development of skills for sustainable economies and digital transformation.
- **The proposed models should be iterative, scalable, and integrated into national and international frameworks** for educational financing. Continuous refinement and monitoring are necessary to ensure long-term sustainability and adaptability to evolving challenges in the world of work. This dynamic approach will enable countries to align LLL initiatives with broader socioeconomic goals.
- **Cost accounting in LLL should evolve gradually and adapting to local, needs, constraints and opportunities**, driven by strategic planning, stakeholder engagement, and pilot studies. The introduction of information technology tailored to local contexts plays a critical role in creating robust and sustainable LLL systems.

These recommendations result from the analysis presented in the main report, which is synthesised in the summary below.

Lifelong Learning: complex and in need of financial information

Cost information is fundamental to expanding LLL, but is missing, particularly in LMIC

Despite the growing importance of LLL at individual, economic, and societal levels, and its particular importance in fostering human capital, with investments in LLL yield significant benefits, many countries have failed to integrate comprehensive LLL systems into their education and training frameworks, with insufficient resources allocated to skills development. This gap is particularly critical in lower- and middle-income countries (LMICs), where achieving Sustainable Development Goal (SDG) 4 is already at risk. Social dialogue plays a fundamental role in establishing inclusive, effective and efficient financing mechanisms for LLL, requiring regular measurement of LLL costs and returns to inform skills development across education, training, employment, growth and other relevant policies.

The presented methodology employs triangulation to ensure evidence-based data collection and analysis, combining theoretical approaches, effective country examples, and actionable recommendations for stakeholders. The research draws on document analysis and guided interviews, with country examples selected based on geography, language, and income levels. These examples highlight efficient cost systems in formal and non-formal technical and vocational education and training (TVET) and RPL. In LMICs irregularities in data collection, limited private sector involvement, and gaps in data on non-formal learning and RPL pose challenges, but options are offered to build actionable insights for policymakers and stakeholders.

LLL is complex and composed of many learning activities that can all benefit from better cost analysis

LLL encompasses the full scope of formal, non-formal, and informal learning activities and concerns skill acquisition, employability, and alignment with labor market needs, as well personal and social development. Targeted investments, innovative financing models and stronger collaboration between governments, educational institutions, companies, and social partners are essential to promote greater efficacy and inclusivity across all these learning activities.

Technical and Vocational Education and Training (TVET), despite a focus on employment and practical skills, faces challenges linked to financing, inclusivity and labour market relevance, particularly in LMICs. Apprenticeships and TVET colleges constitute key pathways for bridging the gap between education and work, especially in LMICs. Apprenticeships combine practical work experience with theoretical learning, while TVET colleges provide more structured, classroom-based education. Combining apprenticeships and TVET colleges can contribute to a more robust vocational education system, supporting smoother school-to-work transitions.

Work-based learning (WBL) and learning on the job are crucial for improving the quality and relevance of education and training. WBL can be formal, non-formal or informal, whereas learning on the job is typically informal and unstructured, but in both cases challenges such as cost identification, methodological issues, and limited data hinder their full potential.

Non-formal learning (NFL) and recognition of prior learning (RPL) are increasingly important for comprehensive education systems. NFL provides flexible, demand-driven learning opportunities outside formal systems, often in workplaces or community settings, while RPL certifies skills and knowledge acquired informally or non-formally. However, both NFL and RPL face challenges, such as establishing quality standards, coordinating formal and non-formal education, and ensuring cost transparency, especially in LMICs.

Accounting and costing for LLL

Accounting systems, costing tools and financing of LLL are fundamental and interconnected

Accounting is the backbone for systematically recording, analysing, and reporting financial data, enabling informed decision-making and resource allocation in all LLL activities. It sets principles for costing and financing, offering a comprehensive financial perspective. This is particularly critical in developing countries, where resources are scarce. A robust accounting system fosters transparency and accountability, facilitating discussions on investment, funding allocation, and shared responsibilities among stakeholders. Limited capacities, inadequate infrastructure, and fragmented stakeholder involvement hinder its full potential

Costing is an essential instrument for managing LLL and focuses on the systematic evaluation of direct costs and indirect costs. Costing zeroes in on the cost aspect of education and training, ensuring efficient resource allocation and programme delivery. However, rudimentary systems and limited resources in many developing contexts impede comprehensive cost tracking, leading to suboptimal planning and decision-making. **Phased introduction of cost accounting systems, leveraging existing data and control mechanisms, is recommended** to enhance transparency and accountability.

Costs represent the quantification of resources consumed to deliver LLL services. **A robust cost analysis framework, encompassing various cost types, is essential for informed planning, management, and financing** of educational programmes. However, challenges such as non-standardized methods, long-lasting assets, and contextual factors complicate cost measurement.

Financing in LLL involves the provision of liquid funds and the socio-political and fiscal interventions necessary to support education, training and support services. Two primary financing approaches are highlighted: supply-oriented financing, where funds flow directly from financiers to providers, and demand-oriented financing, which empowers individuals to use their own funds or state assistance. **Financing strategies must balance state and market roles**, leveraging diverse methods to ensure equitable and sustainable funding, especially in resource-constrained environments.

Costing methodologies need to be adjusted to the specificities of activities under LLL

Lifelong learning is complex and differentiated by its public or private nature, financing mechanisms, certification mechanisms, level of formality, learning phases, target groups, and the contexts where it occurs.

Looking at training, costing schemes in **TVET** vary significantly. In TVET colleges, particularly in LMICs, public funding dominates, but challenges such as limited resources, lack of standardized cost accounting systems, and unpredictable cost increases hinder long-term planning. **Apprenticeships** involve both direct and indirect costs, but inadequate infrastructure and personnel often lead to inaccurate cost identification, impeding efficient financial planning. In **continuing vocational training** (CVET), institutions operate as either cost centres, focused on minimizing expenses, or profit centres, balancing costs with revenue generation. **Active labour market programmes** (ALMPs), in turn, face challenges such as poor-quality accounting, complex cost structures, and reliance on government funding, which can undermine their sustainability during economic uncertainty.

Non-Formal learning costs vary based on providers, duration, and intensity. Public or employer funding can reduce financial burdens, while digital formats offer cost savings on travel and time. Cost of **workplace learning**, specifically, depend on programme length, sector, and company size. Digital tools and targeted government measures can reduce costs, particularly for small and medium-sized enterprises (SMEs). **RPL** involves both direct and indirect costs, requiring careful evaluation and support to ensure effectiveness. Activities in the **informal economy** are unregulated and lack

formal oversight, presenting challenges in accessing financial services and infrastructure being difficult to integrate into formal cost schemes.

National public budgeting exercises in LMIC require adequate methods for estimations. Calculating a comprehensive national budget LLL is naturally challenging due to fragmented and inconsistent data. Most countries lack integrated financial statistics, with public expenditures recorded annually and private sector costs are gathered less frequently. Hidden costs, such as advisory services and indirect government expenditures, further complicate accurate budget estimation. **Three approaches to budget calculation are outlined**: basic estimates using partial data; refined methods employing statistical techniques like interpolation, extrapolation, and rebasing; and comprehensive approaches combining national statistics with actor-specific surveys. A hybrid approach is recommended, balancing resource investment and data accuracy

Cost analyses are a critical instrument for decision-making in LLL, each type with its strengths and limitations

Cost-benefit analysis (CBA) is a structured method for evaluating the economic viability of projects in both the private and public sectors. In the context of LLL, it facilitates the comparison of financial and non-financial benefits from education and training investments. Whereas in the private sector it's used to assess the returns (e.g. productivity) on employee training, in, the public sector it is used to evaluate the efficiency of programmes (e.g. metrics of equal access). Data quality, subjectivity in assumptions, and the complexity of LLL, can however measures can limit its effectiveness.

Cost-efficiency analysis (CEA) is a vital tool for the private sector, enabling organizations to quantify and compare the efficiency of resource utilization in educational investments. Besides costs, it considers qualitative benefits, such as improved employee satisfaction providing a clearer picture of socioeconomic efficacy and the efficiency of investments. Data availability, monetization of qualitative factors, and resistance to change can hinder its implementation.

Cost-utility analysis (CUA) in the public sector focuses on assessing the financial and qualitative impacts education and training activities. The classical CUA emphasizes direct costs and immediate benefits (e.g., student performance metrics), whereas the extended CUA incorporates qualitative dimensions (e.g. student engagement). This comprehensive approach captures the full spectrum of benefits, but faces challenges linked to data complexity and stakeholder engagement

Other methods of interest are also briefly characterised. **Profitability Analysis (PA)** that evaluates whether the income generated by an educational programme exceeds its costs. It is a useful but limited tool that should be complemented by other analyses. **Contribution Margin Analysis (CMA)**, that determines the surplus revenue of a programme after variable costs are deducted providing financial insights, which should, nevertheless be balanced with qualitative considerations. **Opportunity Cost Analysis (OCA)**, that quantifies the value of foregone alternatives when selecting an educational investment. Quantifying costs and benefits and external influences to implement OCA may prove challenging. **Marginal Cost Analysis (MCA)**, that evaluates the additional cost of producing one more unit of an educational offering helping decision-makers determine whether to expand or curtail programmes, but is, however complex to implement.

Expanding LLL: flexibility, responsibility and accuracy

Responding to a diverse and evolving context requires flexible financing frameworks, based on shared responsibilities, enhanced costing frameworks and good regulation

LLL expansion must rely on low-cost, context-specific solutions that align with local cultural, institutional, and economic context, avoiding blind adoption of foreign models. Peer learning is, however, encouraged for localised innovation in work-based learning, digital solutions or budgeting strategies, but well integrated with existing systems.

Comprehensive strategies are normally supported by **shared and fair funding** responsibilities among employees, employers, and governments**,** that promote inclusivity, and **flexible cost frameworks** that allow for rapid response to emerging skills needs, such as digital and green skills.

Upgrading regulatory frameworks, technological infrastructure, and data analysis capacities is critical. Simplifying bureaucratic procedures, institutionalizing stakeholder responsibilities, improving the infrastructure in schools and developing the digital skills of learners and teachers, the data analysis capacity of stakeholders, alongside the establishment of stable data platforms, are necessary measures. **Performance-based monitoring of training activities** is highlighted as a means to identify success drivers, improve cost-benefit ratios, and foster dialogue among employers, workers, educators, and policymakers.

A refined costing framework transforms accounting from a passive recorder of costs into a proactive, strategic activity for planning and control. This requires precise documentation of all costs as well as assessing benefits like increased productivity and employee satisfaction. Costing should aim to reflect individual unit usage, integrate forecasting, simulations, and scenario analyses. **Tools like the Balanced Scorecard and enhanced cost-benefit analyses**, increase strategic alignment ad improve decision-making. **Stronger financial incentives are also necessary** to encourage investment in training and secure long-term competitiveness.

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