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## MEASURING THE ROI OF CONTINUING EDUCATION INITIATIVES IN BUSINESS ORGANIZATIONS

**Abstract.** The study investigates the Return on Investment (ROI) of Continuous Education (CE) initiatives in business organizations situated in the country of Georgia, focusing on their financial and non-financial impacts. Through qualitative research, including interviews with representatives from 18 companies across diverse industries, the study explores the benefits, challenges, and strategic implications of CE programs.

Findings show that CE initiatives contribute significantly to organizational performance through enhanced employee productivity, innovation, and skill acquisition. Financially, companies report revenue growth, cost savings, and improved operational efficiency as direct outcomes of CE investments. On the other hand, these programs drive employee satisfaction, retention, and engagement, creating a positive organizational culture that supports long-term growth.

The study highlights key challenges in measuring CE ROI, including the attribution of outcomes to CE initiatives, delayed realization of returns, and the lack of standardized evaluation frameworks. It emphasizes the importance of a complex approach to ROI measurement that integrates quantitative financial metrics with qualitative evaluation of non-financial benefits.

To address these problems, the research proposes a comprehensive ROI framework tailored to organizational and industry-specific needs. Recommendations include leveraging advanced data analytics, fostering a culture of lifelong learning, and ensuring stakeholder collaboration in CE program design and evaluation.

Based on the research a comprehensive framework for continuing education has been developed to measure the ROI of continuing education in business organizations, considering both financial and non-financial indicators.

This paper contributes to the academic discourse on human resource development and organizational learning by providing practical insights into the evaluation and improvement of CE initiatives. The findings highlight the transformative potential of CE programs in driving innovation, competitiveness, and sustained success in dynamic business environments.

**Keywords:** *Continuing Education (CE), Return on Investment (ROI), Lifelong Learning, Assessment Framework.*

**JEL Classification:** I21; I26; M53; M12; O15.

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**Introduction.** The contemporary world and our workplaces are changing rapidly. The World Economic Forum (WEF) predicts that over the next 10 years, new technologies and increased automation will create new jobs in new professions. Many existing jobs may become obsolete, and some may undergo significant transformation, requiring new skills.

As a result of this evolution, upskilling and reskilling have become more important than ever. The words “upskilling” and “reskilling” may seem interchangeable, but they have different meanings. Upskilling means learning new skills to better perform your current job. An example of upskilling is a UX designer who signs up for a “user journey” workshop to improve her skills in app design or merchandising. She attends a retail conference to learn about the latest industry trends.

Retraining is a great way to transition into a new field and/or start a new career. Changing careers is more common than ever before. Therefore, specialized courses and programs allow people to quickly adapt a specific career choice to their interests and values. In 2021, a Harris Poll of American employees conducted for Fast Company found that 52% of respondents were thinking about changing jobs, and 44% were planning to change.

People make the decision to change careers for many reasons, including higher salaries, improved work-life balance; more flexible work schedules (e.g., remote work); or better company management.

Today, there is a need for continuous education to ensure that people are in demand in the job market. There are fields where competition with technology is doomed from the start, and therefore the need for retraining often arises. Continuing education is essential in today’s rapidly changing business world for several reasons: (1) Technological progress – digital technologies are constantly evolving and new skills need to be acquired to work with them; (2) Global competition – companies need highly skilled employees to remain competitive; (3) Innovation – new products and services require new knowledge and skills.

In addition to the interests of the employee, employers also see the benefits of learning that is based on skills. This ensures that the company ensures that employees are better prepared in line with the changing industry, which is likely to allow employees to stay with the company and advance their careers – all while saving costs. That is

why business leaders demand data-based evidence to justify investments in employee development. The best indicator of this is the return on investment (ROI).

Return on investment (ROI) is a widely used metric for measuring company performance, as it provides a clear and concise way to assess how effectively a company uses its resources to generate profit. However, many companies avoid using it to measure the effectiveness of continuing education initiatives. There are several reasons: Continuing education is considered a long-term investment, the results of which are often not immediately visible. Because of this, ROI can only be calculated over a fairly long period of time. Also, learning outcomes are often not reflected only in the productivity of a specific individual, but are related to the overall results of a group, team, or organization. Therefore, it is difficult to fully calculate the impact of a learning investment on the company as a whole or on the organization that implements the initiative. In addition, the learning process can combine many aspects, such as professional development, personal growth, expansion of social and professional networks, and others, which makes it impossible to objectively assess all of these factors. Also, learning outcomes are often driven by personal motivation. People strive for better outcomes for different reasons, and this can be difficult to account for individually, which makes it difficult to accurately measure ROI. The objectivity of the assessment is also complicated, as there is no single standard that shows what the real mediator of learning outcomes is. This can lead to differentiated or subjective assessments. Therefore, measuring ROI in initiatives such as continuing education requires some enhancement and development of criteria to more accurately assess their benefits to organizations and individuals, which is what our paper serves.

The subject of the research is the evaluation of the effectiveness of continuing education (CE) initiatives in business organizations, while focusing on measuring their return on investment (ROI) through financial and non-financial indicators.

The object of the research is continuing education initiatives implemented within business organizations in the Country of Georgia studied through their impact on organizational accomplishment, employee development, and stable competitiveness.

A second problem can be called the lack of standardized frameworks for calculating ROI in non-traditional investments such as

education. In non-traditional investments such as education, calculating ROI (return on investment) is often difficult because there are no standardized frameworks and measurable metrics that reflect the benefits in direct financial terms. Determining the ROI of education should take into account both financial and indirect benefits. For example, the skills, knowledge and qualifications acquired as a result of education, which increase career opportunities. As well as long-term results, as the impact of education can be seen years later, making it difficult to calculate ROI instantly. There are also other non-financial benefits, such as personal development, expanding social connections and improving the quality of life. In addition, the results of investing in education are often subjective and depend on individual expectations and goals.

The aim of the paper was to develop a specific framework for assessing the return on investment (ROI) of continuing education initiatives in business organizations, focusing on both financial and non-financial outcomes to optimize strategic decisions and the value of training programs.

Accordingly, the research objectives were to:

1. Identify critical factors that influence the effectiveness of CE programs.
2. Define quantitative metrics for measuring the financial returns of CE. Such as Net Profit, Return on Investment (ROI), Sales Growth, Customer Retention, Market Share, etc.
3. Identify non-quantitative metrics for measuring non-financial returns of CE, such as brand perception and image, employee engagement and satisfaction, company reputation, environmental impact, social impact, etc.

## Literature Review.

### The Concept of Continuous Education in Business

The need for continuing education can be identified as a result of both organizational changes and a person's willingness to learn something new in their profession. Since today's digital age has offered us many easy methods of learning, be it free webinars, acceleration programs, various online trainings, or videos on digital media channels that constantly provide us with news, certification and express courses that are conducted by industry experts in almost all relevant areas, the process of accessing education has been facilitated.

Continuing education (CE) refers to the ongoing process of learning and improving

skills that extends beyond formal education and training. In the business context, CE includes structured programs and informal learning opportunities designed to help employees adapt to evolving industry requirements, technological advancements, and organizational changes. In this section, we will discuss the importance, benefits, and theoretical foundations of continuing education in business organizations.

Continuing education is defined as the ongoing pursuit of knowledge and skills to maintain and enhance professional competence. Authors like Merriam and Caffarella (1999) emphasize the role of CE in facilitating personal and organizational growth. In difference with traditional education, which is often finite and limited to academic institutions, CE is dynamic and integrated with job requirements, responding to the specific needs of employees and organizations.

The speed of technological and market change requires a workforce that is capable of continuous learning. For instance, Drucker (1994) emphasized the emergence of the "knowledge worker" and the vital importance of intellectual capital in organizational success. Lifelong learning equips employees with the skills they need to innovate, adapt, and compete in a globalized economy. It also improves employee engagement and retention by bringing in front a culture of growth and development (Noe et al., 2010).

Continuing education is based on several theories: (1) Experiential Learning Theory: Kolb (1984) argued that learning is a process in which knowledge is created through the transformation of experience. This theory emphasizes the importance of practical, reflective learning in CE initiatives. (2) Self-Directed Learning Theory: Knowles (1975) introduced the concept of self-directed learning, where individuals take the initiative to identify their learning needs, set goals, and evaluate their outcomes. CE programs often incorporate elements of self-direction to empower employees. (3) Social Learning Theory: Bandura (1977) emphasizes the role of observation, imitation, and social interaction in learning. CE in business often includes mentoring, coaching, and collaborative learning environments.

Continuing education provides benefits at both the individual and organizational levels. At the individual level, employee development can be considered as it enhances employees' technical and creative skills, improves job performance and career prospects (Baldwin et al., 2009). At the

organizational level, studies (Tharenou et al. 2007) show a positive correlation between CE investments and organizational productivity, innovation and profitability. A third positive aspect of continuing education programs is adaptability and sustainability – CE promotes a culture of agility, which allows organizations to effectively respond to market disruptions and technological shifts. Despite its advantages, implementing CE programs comes with challenges such as costs and resource allocation, as CE programs require significant investments in time, money and infrastructure (Jehanzeb & Bashir, 2013). It can also be difficult to ensure ongoing employee engagement, especially in fast-paced work environments. Evaluating the impact of initiatives remains a challenge, as benefits are often seen in indirect or long-term outcomes.

To maximize the impact of CE, researchers have suggested that organizations integrate CE into their work processes as early as the twentieth century, such as embedding learning opportunities into everyday work activities that facilitate seamless acquisition of skills (Marsick & Watkins, 1990).

Today, in the 21st century, e-learning platforms, virtual simulations, and mobile applications provide flexible and scalable CE solutions, and their types have become more sophisticated and diverse.

In particular, the pandemic and its aftermath have offered specific forms of learning that are being put into practice by organizations and individuals. Actively used types of CE initiatives include:

- Formal training – structured training programs that are delivered with defined curricula. Examples: seminars, workshops, lectures, certification courses;
- On-the-job training (OJT) – a practical training method that is carried out directly during the work process and aims to improve the skills of the employee in a real work environment. For example: mentoring, SHADOWing, practical projects;
- Certificates and certification – a formal process of improving and confirming professional qualifications. Certification programs often include exams and completing courses. For example: PMP, CISSP;
- Electronic learning (E-Learning) – training using online platforms and digital resources. A flexible and accessible form, which often includes video lectures, virtual classes and tests. Platforms: Coursera, Udemy, LinkedIn Learning;

- Continuing professional development (CPD) – continuous updating and development of professional knowledge. Includes seminars, conferences, and research projects;

- Microlearning – Short, targeted learning modules that focus on a specific skill or topic. Mostly used on digital platforms. Job rotation and project-based learning. The temporary assignment of employees to different roles to acquire new skills.

#### ROI Measurement Theories and Models

The concept of return on investment (ROI) is widely used in various companies to assess the effectiveness of investments. Our interest lied in its application in continuing education (CE) programs in business organizations. ROI provides a structured framework for quantifying the value generated in relation to the costs incurred. However, understanding and applying ROI measurement requires studying the relevant theories and models that underlie its calculation and interpretation. Below are some of the most used models for the application of ROI in continuing education proposed by various authors.

#### Challenges in Measuring ROI of Educational Programs in Business Organizations

Despite the opportunities outlined in the previous section, measuring return on investment (ROI) for educational programs, especially in business organizations, is a multifaceted challenge. In order to accurately measure ROI overcoming several conceptual, methodological, and practical obstacles is needed. Many authors have identified intangible benefits, difficulty attributing outcomes, data availability and quality, and so on.

Educational and training programs often provide intangible benefits that are difficult to quantify. Among them we can count improved employee morale, improved organizational culture, and opportunities for long-term innovation. Swanson and Holton (2009) highlighted the difficulty of translating these intangible outcomes into measurable financial terms, which limits the comprehensiveness of ROI calculations.

It is also complex to measure ROI of a specific program. Organizations often operate in challenging environments where multiple factors influence performance metrics. According to Phillips and Phillips (2007) separating the effects of CE initiatives from other variables, such as market trends or managerial interventions, is critical but often difficult.



In addition, the benefits of training programs may take months or years to materialize. For example, skill development may only lead to measurable increases in productivity over time. Cascio (1991) emphasizes the importance of adopting long-term evaluation frameworks to account for delayed impacts, although such approaches can complicate ROI assessment.

Accurate ROI measurement also depends on access to reliable data. However, organizations often face difficulties in collecting and analyzing data on both costs and outcomes. Bates (2004) noted that incomplete or inconsistent data can undermine the validity of ROI analysis, necessitating robust data management practices.

Most importantly, ROI measurement itself

**Table 1. Some models used for ROI applications in continuing education**

#	Model	description	Author
1	The Kirkpatrick Four-Level Model	One of the fundamental models often associated with the evaluation of training and education programs is the Kirkpatrick Four-Level Model (1959). This model emphasizes four sequential levels: response, learning, behavior, and outcomes. Although not explicitly tied to ROI, the model's outcome level can be aligned with ROI analysis of training program outcomes in relation to organizational performance metrics. Researchers Phillips and Phillips (2002) extended this model by introducing a fifth level, ROI, which quantifies the monetary benefits derived from training relative to its cost, thus linking qualitative assessments and quantitative ROI calculations.	Donald L. Kirkpatrick
2	Human Capital Theory	HHhuman capital theory provides a framework for measuring ROI in education and training. The theory argues that investments in employee knowledge and skills enhances productivity and, organizational success. This framework is vital for justifying CE investments because it underlines the potential economic returns from skill development. Research by Swanson and Holton (2009) has shown how ROI methodologies can show in numbers these returns, providing organizations with a tangible basis in evaluating CE initiatives.	Becker, 1964
3	Cost-Benefit Analysis (CBA)	Cost-Benefit Analysis is a decision-making tool based on welfare economics. It is another relevant model for measuring ROI. It involves identifying, quantifying, and comparing the costs and benefits of a CE initiative. In the context of CE programs, CBA serves as a precursor to ROI analysis by evaluating whether the benefits outweigh the costs. Authors Mishan and Kuah (2007) identified how CBA principles can be integrated into ROI calculations and emphasized the importance of discounting future benefits and accounting for opportunity costs.	Mishan and Kuah (2007)
4	Balanced Score Card (BSC)	The customer, internal processes, and learning and growth is the BSC perspectives. It is not explicitly an ROI model, but this framework provides a multidimensional approach to performance measurement that allows organizations to assess the broader impact of CE initiatives. Niven (2002) argued that connecting BSC perspectives to ROI metrics can create a more comprehensive evaluation framework that captures both financial and non-financial gains.	Kapla and Norton 1992
5	Utility Analysis	Utility Analysis is a model commonly used in industrial-organizational psychology. It mainly focuses on quantifying the monetary value of human resource interventions. This approach calculates the economic benefits derived from changes in employee performance attributable to training programs. The analysis complements ROI measurement by offering a structured methodology for translating intangible benefits into financial terms.	Cascio (1991),
6	Learning Transfer Model	Learning transfer model emphasizes how transferring learned skills to the workplace is crucial. Effective learning transfer is vital to realizing the ROI of CE programs as it determines whether training outcomes translate into improved job performance. Bates many years ago (2004) highlighted the interaction between learning transfer and ROI, suggesting that high transfer rates are necessary to maximize returns on CE investments	Broad and Nystrom (1992)
7	Stakeholder Theory	Stakeholder theory emphasizes the need to consider the different perspectives of stakeholders when evaluating investments. In the context of measuring ROI for CE programs, this theory emphasizes the importance of aligning ROI metrics with the expectations and needs of various stakeholders, including employees, managers, and organizational leadership. Donaldson and Preston (1995) suggest that incorporating stakeholder perspectives enhances the validity and relevance of ROI estimates.	Freeman (1984)

requires resources, including time, money, and expertise. Jehanzeb and Bashir (2013) noted that organizations may be reluctant to invest in rigorous ROI assessment due to the associated costs. This creates a paradox where ROI assessment is needed to justify the costs, but the cost of the assessment limits its implementation.

Phillips and Phillips also cite the lack of standardized methodologies for measuring ROI in educational programs as a challenge. Different organizations use a variety of approaches, leading to inconsistencies in how ROI is calculated and interpreted. This variability makes it difficult to benchmark and compare ROI results across programs or industries (Phillips & Phillips, 2011).

Donaldson and Preston argue, that, implementing ROI measurement frameworks is often met with resistance from stakeholders. Managers and employees may perceive these assessments as too much critical or burdensome. Ensuring buy-in from all stakeholders requires effective communication of the benefits of ROI measurement and the use of collaborative assessment approaches (Donaldson & Preston, 1995).

To sum up, measuring ROI for educational programs involves challenges such as quantifying intangible benefits, attributing outcomes, addressing time constraints, ensuring data quality, and managing costs. Overcoming these obstacles requires adopting robust measurement frameworks, leveraging data analytics technology, and fostering a culture of transparency and collaboration. By addressing these issues, organizations can better demonstrate the value of their CE initiatives and make informed decisions about future investments.

#### **Financial and Non-Financial Measures of ROI in Continuing Education**

Measuring the ROI of educational programs requires very thorough assessment of both financial and non-financial indicators. While traditional financial metrics remain the cornerstone of ROI evaluation, non-financial metrics are equally important in capturing the broader impact of continuing education (CE) programs.

The main quantitative and monetary measure of the value generated by CE initiatives is increased revenue, as training programs that improve employee skills and knowledge often lead to increased sales, customer retention, and the ability to enter new markets, which ultimately contribute to increased revenue (Phillips & Phillips, 2007).

Cost savings are similarly considered, as training that increases efficiency or reduces errors can significantly reduce operating costs. Cascio (1991) emphasizes the importance of calculating direct savings, such as reduced material waste or shorter project timelines, to justify CE investments.

Also, improved employee performance due to CE programs often translates into measurable increases in productivity. Swanson and Holton (2009) noted that ROI estimates should consider both the volume and quality of work produced by employees because of improved skills.

Regarding non-financial indicators, it reflects intangible benefits that contribute to the long-term success of the organization. These include: (1) employee engagement, as CE programs foster a learning culture, boost employee morale, and motivate employees. Jehanzeb and Bashir (2013) found that engaged employees are more likely to stay with their organization and contribute to a positive work environment; (2) higher employee retention rates (Tharenou et al., 2007); (3) innovation, because continuing education encourages employees to think creatively and adopt new ideas. Drucker (1994) emphasized the role of knowledge workers in driving organizational innovation through continuous learning. (4) customer satisfaction, because CE initiatives that improve service delivery and employee competence directly enhance customer experience. Kaplan and Norton (1992) noted that organizations should include customer satisfaction metrics in their ROI assessments to examine the external impact of CE programs. Phillips and Phillips (2011) advocated a balanced approach to measuring ROI, integrating financial and non-financial metrics to provide a holistic view of program outcomes. While financial metrics are essential for quantifying direct monetary returns, non-financial metrics provide recognition of the broader, strategic contributions of CE programs.

By combining these complex financial and non-financial measures, organizations can examine the value of their CE investments and build a strong foundation for continued funding and support.

**Research Methodology.** The research methodology provides a structured framework for data collection, analysis, and interpretation to answer the research questions on the return on investment (ROI) of continuing education (CE) initiatives. The study applies a qualitative approach, namely semi-structured interviews to elicit the views

and opinions of professionals from various industries.

Because existing studies and case studies consistently show different transformational effects of CE on business outcomes across industries due to different sector dynamics, and because many authors have noted its particular importance in sectors such as technology, healthcare, manufacturing, and services, we decided to select companies representing these industries for the study.

The study uses a qualitative method to explore in-depth factors that influence the ROI of CE initiatives across industries. The design is appropriate for understanding subjective experiences, industry-specific challenges, and organizational strategies related to CE investments. A multiple case study approach was used, focusing on representatives of selected industries to enable comparative analysis and strategic insights from industry representatives.

Based on the objectives of the paper, the research objective was to identify financial and non-financial metrics that organizations use to measure the ROI of CE initiatives. It also aims to examine industry-specific challenges and best practices in evaluating CE outcomes.

The research assessed the perceived impact of CE initiatives on business performance and strategic objectives.

The target population included middle and senior managers and HR/training professionals, department heads, who are responsible for implementing and evaluating CE programs within their organizations.

Purposive sampling was used to ensure the inclusion of participants with relevant expertise and experience in managing CE initiatives.

Semi-structured interviews were conducted for data collection to allow for flexibility in exploring the issues raised and to maintain a consistent structure across participants. To ensure relevance to the research objectives, an interview guide was developed that focused on the following areas:

1. Overview of CE initiatives in the organization.
2. Methods for measuring ROI for CE programs.
3. Financial and non-financial benefits of CE initiatives.
4. Industry-specific challenges in evaluating CE.
5. The impact of CE on business outcomes (e.g., productivity, innovation, retention).

6. Perceptions of future trends in measuring CE and ROI.

Data collection was conducted using online platforms and in person, depending on participant preferences and geographic constraints. Each interview lasted approximately 45-60 minutes. Consent was obtained from participants to be recorded and transcribed.

To analyze the interview data, Brown and Clarke's (2006) six-step framework was used, namely: Familiarizing the data by rereading the transcripts. Initial coding of important ideas and patterns.

Grouping codes into broader themes and subthemes. Discussing themes for relevance to the research objectives. Defining and naming themes to understand their essence. Preparing a report summarizing the findings and their implications.

Cross-industry comparisons were also important in the study. Accordingly, a comparative analysis of the data was conducted across the industries of the surveyed companies to identify similarities and differences in ROI measurement practices, challenges, and outcomes.

We also took into account the ethical aspects of the study and participants received an information sheet detailing the study objectives, data collection methods and confidentiality measures. After which written or verbal consent was obtained.

Information about all participants is anonymous and identifying details have been removed from the transcripts. The data are protected and used only for research purposes.

Although qualitative methods provide rich, detailed insights, we identified several limitations of the study at the stage of developing the methodology:

1. The small sample size may limit the generalizability of the findings.
2. Industry-specific contexts may affect the transferability of the results to other sectors.
3. The subjective views of the participants may introduce bias.

However, we are confident that this study will become a prerequisite for more comprehensive and large-scale studies in this direction.

**Main Results.** A total of 18 companies from various industries were surveyed during the study.

As shown in the table, the survey respondents represent a wide range of positions across industries, including

**Table 2. Companies surveyed during the study**

#	Company name	Representative position
1	Meama	Head of Production
2	International Medical Support	Founder
3	Element Construction	Head of Human Resources Management
4	Exadel Georgia	Head of Learning and Development
5	Webiz	Administrative Manager
6	Lineate	Head of Human Resources Management Department
7	Epam Georgia	Talent Development Specialist
8	Liberty	Head of IT and HR Direction
9	EY	Supervising Associate   Talent Team
10	Nexia TA	Head of Human Resources Management Department
11	Moore abc	Human Resources Manager
12	B2C	Founder, CEO
13	Phubber	Co-Founder, CEO
14	Digital Area	Head of Human Resources Management Department
15	Efes Georgia	Human Resources Management Specialist
16	Transporter	Head of Human Resources Management Department
17	Palitra Holding	Head of Human Resources Management Department
18	Vivo Medical Group	Head of Finance Department

healthcare, IT, construction, education, finance, manufacturing, and digital services. Their insights enriched the study with multi-industry insights on the ROI of continuing education (CE). The majority of them are senior management, emphasizing ROI as a driver of competitive advantage, business scalability, and revenue. The involvement of human resource (HR) management experts

provided a focus on non-financial metrics such as employee retention, satisfaction, and development. Their expertise adds depth to the understanding of how CE impacts knowledge acquisition, engagement, and organizational culture. The participation of learning and development (L&D) specialists in the study provided actionable insights into program design, implementation, and

**Table 3. The summarized answers of the respondents**

Interview Questions	Summary of Respondents' Answers
1	2
1. Please describe the major continuing education (CE) initiatives that your organization has implemented in the past 3-5 years? What was the primary goal of these CE initiatives?	With the assistance of USAID, the company developed 13 modules for employers for vocational education and established and opened a training center. The company implemented CE initiatives in the direction of coffee selection, roasting, evaluation and preparation technologies. The main goal of these initiatives was to study the technology of coffee capsule production.
2. How do you measure your continuing education initiatives financially? What specific financial metrics are used?	We track KPIs such as engagement, learning outcomes and job performance for financial evaluation; we measure direct revenue from campaigns and use a percentage-based ROI to assess impact. Some companies, however, do not have a specific financial evaluation system - instead, they rely on resource savings during recruitment and training.
3. In addition to financial metrics, what non-financial metrics (e.g., employee satisfaction, retention, knowledge acquisition) do you consider when evaluating the success of CE programs?	Surveys, feedback, learning outcomes and LMS analytics. Employee engagement rate in programs. Success is measured by the number of graduates and their subsequent employment or role change.
4. Do you compare the ROI of continuing education initiatives to other organizational investments? How?	ROI is calculated by comparing CE costs (e.g. course fees and time) with benefits such as productivity and skill development. ROI for CE is assessed based on the ability of professional staff to generate increased revenue with minimal additional costs. In most companies, there is no specific comparative analysis.



	Продовження табл. 3 /Continued tabl. 3
1	2
5. What tangible financial benefits have you seen from your continuing education initiatives (e.g., increased revenue, reduced costs)?	Financial performance improved, although specific examples were not detailed. Increased revenue with the same resources; cardiologists earned income from training after obtaining a license. Reduced costs for recruitment and training for specific roles.
6. Can you share with us some of the intangible benefits that have been achieved from continuing education programs?	Unique product development and stronger market positioning, such as eco-friendly packaging that reduces waste by 20%. Enhanced reputation due to trained professionals and better patient outcomes. Increased company awareness, loyalty, trust and social responsibility.
7. To what extent has there been a significant change in employee productivity or job satisfaction since implementing continuing education programs?	Significant increase in productivity and satisfaction. Qualified employees are more productive, better paid, and satisfied. Employee productivity and satisfaction are being monitored.
8. What unique challenges does your industry face when measuring the ROI of continuing education initiatives? How do these challenges differ from other industries?	Challenges include training employees who have no prior experience and the lack of automation/data collection systems in the coffee industry. ROI assessment focuses on intangible outcomes and the use of basic financial formulas. No significant challenges are mentioned, but the need for labor market research is highlighted.
9. Are there any specific tools or methods that you have found particularly useful in overcoming these challenges?	ERP systems for tracking coffee production, distribution, and employee skills. Modern technologies such as websites and software tools. Market research and gap analysis.
10. Can you describe how continuing education initiatives have helped your organization achieve overall business goals (e.g., strategic growth, competitiveness)?	Improved operational efficiency and environmentally friendly practices that enhance the brand's competitiveness. Employee qualifications and new technologies directly increase growth and competitiveness. Simplified recruitment and attracted external partners.
11. Have continuing education programs impacted innovation or creativity in your organization? If so, how?	Increased opportunities for innovation, such as eco-friendly packaging technologies. Regular training in new technologies encourages innovation.
12. How have continuing education programs impacted employee retention and talent development in your company?	Strong positive impact. Improved retention due to better satisfaction and development. Training with foreign experts helped retain and grow talent.
13. How do you see the future of continuing education in your industry? What trends are emerging?	CE is increasingly important, especially for specialized technologies. CE investments will increase as industries develop. Increasing emphasis on training for niche occupations and continuous professional development.
14. How do you think continuing education ROI measurements will change in the next 5 to 10 years? What are your plans for moving forward?	Expects more precise and multidimensional ROI frameworks. Predicts significant progress in ROI measurement. No specific insights but acknowledges ongoing advances.
15. Based on your experience, what advice would you give to organizations looking to more effectively measure the ROI of their continuing education program initiatives?	Organizations should adopt a strategic approach that includes data management, focused goal setting, and continuous monitoring of results. Every business has its own culture and vision for growth, so specific and measurable goals should be set, and training should be aligned with these goals. Increase CE efforts to drive ROI. Conduct thorough market research and promote initiatives widely.
16. Is there anything else you would like to share about measuring ROI with CE initiatives based on your experience?	One of the most valuable lessons was to understand that ROI should not be measured only from the perspective of management. Employee opinions and feedback are crucial to understanding the real results of the training. - Any correctly calculated CE is directly proportional to ROI; - In general, when developing initiatives, the field, market, potential applicants and programs should be researched very well, so that the offer is then adequate, and the interest is appropriate. It is also important to implement information campaigns so that as many people as possible learn about the initiatives. It is also necessary to cover the entire country and create opportunities for continuous education for the population of the regions.

effectiveness to improve workforce skills, productivity, and knowledge acquisition. The participation of department heads such as IT, finance, and manufacturing helped us understand the operational perspectives for integrating CE initiatives with technology, cost management, and resource optimization, which directly links CE to measurable financial performance.

To summarize their opinions regarding our questions, Table 3 provides the summarized answers of the respondents:

When summarizing the interviews, the main research themes were identified from the respondents.

From these responses and the main topic of the study, a number of recommendations and practical insights were shared by respondents.

These include: (1) Strategic integration: CE programs should align with broader organizational goals, ensuring that both financial and non-financial metrics are considered. (2) Enhanced ROI tracking:

Organizations should adopt modern tools to comprehensively measure ROI, including predictive analytics and employee satisfaction surveys. (3) Leadership engagement: Founders and executives should prioritize CE as a strategic investment to improve long-term value.

**Interpretation of Results.** The results of the study show that the majority of companies are implementing continuing education (CE) initiatives, but in many cases they are not measured against all metrics. There are no predetermined financial or intangible benefits and they are mainly focused on the needs of employees rather than on the long-term development of the company. There is no comprehensive framework that can be applied according to the type of industry or business organization. The results, obtained from interviews with 18 companies in a variety of industries, highlight the benefits of CE programs in terms of measurable financial returns and broader organizational needs.

**Table 4. Main research themes**

Main Topics of the Study	Respondents' Opinion	Example from the Industry
CE Program Goals	Across industries, key goals of CE initiatives include improving employee experience, fostering innovation, and achieving competitive differentiation.	Medical organizations (e.g., International Medical Support) focus on increasing customer acquisition skills, while IT companies (e.g., EPAM Georgia) emphasize innovation and the use of technology.
Measuring Financial ROI	Respondents rely on specific metrics such as revenue growth, cost savings, and ROI formulas. Percentage-based measurements are used to assess the financial impact of CE programs.	EY tracks direct financial contributions through campaigns and CE-linked generation.
Non-Financial Metrics	Employee engagement, retention, satisfaction, and productivity are critical to measuring CE success.	Liberty and Lineate link CE to employee retention and career growth.
Challenges in Measuring ROI	Industries such as healthcare (e.g., Vi Medical Group) face challenges in converting intangible CE benefits into measurable financial returns. However, modern tools and technologies are helping to bridge these gaps.	
Intangible Benefits	Respondents highlight innovation, increased employee loyalty, and enhanced brand reputation as intangible outcomes of CE.	Phubber attributes CE to developing creativity and team unity.
Industry-Specific Value	Healthcare and Education: Emphasizing the need for continuous skill up-gradation and the direct impact on business outcomes (e.g. customer acquisition or offering training services).	
	Technology and Digital Sectors: Emphasizing the role of CE in innovation, product development, and competitiveness.	
	Traditional Sectors (Construction, Manufacturing): Focusing on improving productivity and retaining talent as key drivers of ROI.	

These results highlight several key themes that are vital to understanding the return on investment (ROI) of CE initiatives.

Specifically, the following areas were highlighted:

1. Financial metrics: CE initiatives have been shown to generate significant financial returns for organizations. Metrics such as increased revenue, cost savings through reduced recruitment and training costs, and improved operational efficiency were prominent in participant responses. For example, organizations implementing CE programs reported productivity gains that allow them to accomplish more with the same or fewer resources. Moreover, companies cited the importance of reducing employee turnover costs through enhanced retention as a significant financial benefit.

2. Non-financial metrics: The study highlighted the equal importance of non-financial outcomes in measuring the effectiveness of CE initiatives. Improved employee satisfaction, increased engagement, and stronger organizational loyalty were consistently reported. Many participants linked these outcomes to the creation of a positive learning culture that fosters innovation and collaboration. Enhanced employee morale and team cohesion emerged as additional benefits, further illustrating the multifaceted value of CE programs.

3. Long-term Impact and Challenges: While CE initiatives deliver measurable benefits, challenges related to calculating ROI remain evident. Several participants highlighted the difficulties in directly attributing specific organizational outcomes to CE programs. Delays in revenue realization and the lack of standardized measurement frameworks were recurring themes. In addition, intangible benefits of CE, such as innovation and employee development, often require qualitative assessment methods, making traditional approaches to measuring ROI difficult.

4. Industry-Specific Insights: The findings also revealed variation in CE priorities and outcomes across industries. For example, technology-driven companies emphasized skill acquisition and innovation as critical outcomes, while service-driven organizations prioritized employee retention and customer satisfaction. This variation highlights the need for industry-specific measurement frameworks that link CE initiatives to sector goals and expectations.

The following conclusions can be drawn from the results:

CE as a strategic imperative: Continuing education is no longer an additional organizational activity, but a strategic imperative to remain competitive in rapidly evolving markets. By facilitating upskilling, CE programs enable employees to adapt to technological advances, industry changes, and new challenges.

The dual nature of ROI: The ROI of CE initiatives should be understood as a dual construct that includes both financial and non-financial dimensions. While financial metrics provide tangible justification for CE investments, non-financial metrics capture broader organizational impacts, such as enhanced employee engagement, retention, and innovation.

Need for tailored measurement frameworks: Given the diversity of industries and organizational goals, a one-size-fits-all approach to measuring CE ROI is insufficient. Instead, organizations need to develop tailored measurement frameworks that combine quantitative and qualitative metrics that align with their specific strategic objectives.

Overcoming ROI measurement challenges: The study highlights ongoing challenges in measuring CE ROI, particularly in attributing organizational outcomes to CE initiatives and quantifying intangible benefits. Addressing these challenges requires robust data collection methods, advanced analytical tools, and collaboration between stakeholders to determine reliable and actionable ROI estimates.

**Conclusion.** Based on the objectives of the paper and the research findings, we have developed general recommendations that answer the research questions:

1. Organizations should adopt frameworks that integrate financial and non-financial metrics that allow for a holistic assessment of CE outcomes. For example, frameworks should include metrics such as revenue growth, cost savings, employee retention rates, and innovative outcomes.

2. Data analytics, artificial intelligence, and machine learning can be used to track and analyze the outcomes of CE programs over time. These tools can help organizations identify patterns, predict future outcomes, and make data-driven decisions to refine CE strategies.

3. Organizations should design CE programs that address industry-specific needs

**Table 5. Framework for Continuing Education**

Aspect	Financial Metrics	Non-Financial Metrics	Strategic Alignment	Tools & Techniques	Stakeholder Impact
Input Metrics	Cost of programs, time investments, opportunity costs	N/A	Align investments with organizational goals	Resource tracking systems	Management approval and funding
Output Metrics	Cost savings, revenue growth	Training completion rates, skill acquisition	Ensure alignment with KPIs	Post-training assessments	Employee feedback
Outcome Metrics	Productivity increases, ROI percentage	Retention rates, employee satisfaction, innovation metrics	Support organizational growth and innovation goals	Data analytics and predictive tools	Organizational culture and morale
Impact Attribution	Revenue and cost reduction attributable to CE	Enhanced teamwork, improved employee engagement	Link CE initiatives to strategic priorities	Control groups, regression analysis	Stakeholders buy-in through transparent reporting
Balanced Scorecard	Revenue, cost-benefit analysis	Brand perception, employee development	Integrate financial and non-financial performance metrics	Visualization tools like dashboards	Improved strategic decision-making
Feedback Mechanisms	Identify areas of financial inefficiency	Qualitative improvements based on employee surveys	Adjust CE programs to meet evolving needs	Continuous surveys and feedback loops	Employee participation and collaboration
Iterative Refinement	Enhanced ROI over successive CE cycles	Enhanced employee loyalty and motivation	Align refinements with long-term strategy	Program review and redesign processes	Sustainable commitment from all levels
Accessibility Expansion	Financial planning for scaling CE programs	Increased accessibility and participation rates	Broaden CE outreach across all employee levels	Online learning platforms, microlearning modules	Greater inclusivity and equity

and challenges. This includes identifying critical skill gaps, aligning training content with emerging industry trends, and ensuring that CE initiatives support long-term organizational goals.

4. Top management should actively foster a culture of lifelong learning by encouraging employee participation in CE programs and demonstrating the value of such initiatives through visible organizational support and recognition.

5. To ensure the success of CE initiatives, organizations should involve a variety of stakeholders, including employees, managers, and external training providers, in the planning and evaluation process. Stakeholder feedback is critical to identifying areas for improvement and ensuring alignment with organizational goals.

6. Organizations should invest in methodologies that separate the impact of CE initiatives from other variables that influence organizational success. Techniques such as pre- and post-training assessments, control

group comparisons, and regression analysis can improve the accuracy of ROI estimates.

7. Sharing success stories of CE programs within the organization can build momentum and encourage broader participation. Highlighting measurable outcomes and employee testimonials can further demonstrate the value of CE investments to stakeholders.

8. Organizations should periodically review and adjust CE programs based on evolving business needs and employee feedback. This iterative approach ensures that CE initiatives remain relevant and aligned with strategic goals.

9. Organizations should explore innovative delivery methods, such as online learning platforms and microlearning modules, to make CE programs more accessible and flexible for employees. Expanding access to learning opportunities can enhance employee participation and generate broader organizational benefits.



10. Organizations should understand their commitment to CE as a competitive differentiator in their talent acquisition and retention efforts. By highlighting the availability of CE programs, organizations can attract the best talent and strengthen their brand as a good employer.

In response to the objectives of the paper, based on the literature review, qualitative research, and findings, with the help of artificial intelligence, we developed a comprehensive framework for continuous education to measure the ROI of continuous education in business organizations, considering both financial and non-financial indicators. The matrix illustrates the interrelationships of the main aspects in the

comprehensive ROI framework for continuous education (CE). Each component is mapped to its corresponding dimensions and outcomes to represent their interrelationships.

Investing in continuing education is not a developmental initiative but a strategic imperative for business organizations. By adopting a ROI framework that balances financial returns with intangible benefits such as employee engagement, innovation, and organizational agility, top managers can make informed decisions about their learning investments. As the business landscape evolves, companies that prioritize measurable and impactful learning strategies will be better positioned to sustain competitive advantage and foster long-term growth.

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## ВИМІРЮВАННЯ РЕНТАБЕЛЬНОСТІ ІНВЕСТИЦІЙ У ПРОГРАМИ БЕЗПЕРЕРВНОЇ ОСВІТИ В БІЗНЕС-ОРГАНІЗАЦІЯХ

Дослідження вивчає рентабельність інвестицій (ROI) в програми безперервної освіти (CE) в бізнес-організаціях, розташованих у Грузії, зосереджуючись на їх фінансовому та нефінансовому впливі. За допомогою якісних досліджень, включаючи інтерв'ю з представниками 18 компаній з різних галузей, дослідження вивчає переваги, виклики та стратегічні наслідки програм CE.

Результати показують, що ініціативи CE значно сприяють підвищенню ефективності організації завдяки підвищенню продуктивності праці співробітників, інноваціям та набуттю нових навичок. У фінансовому плані компанії повідомляють про зростання доходів, економію витрат та підвищення операційної ефективності як прямі результати інвестицій у CE. З іншого боку, ці програми сприяють задоволеності, утриманню та залученню співробітників, створюючи позитивну організаційну культуру, що підтримує довгострокове зростання.

Дослідження висвітлює основні виклики в оцінці рентабельності інвестицій у безперервну освіту, включаючи атрибуцію результатів ініціатив безперервної освіти, затримку реалізації прибутків та відсутність стандартизованих систем оцінки. Воно підкреслює важливість комплексного підходу до оцінки рентабельності інвестицій, який поєднує кількісні фінансові показники з якісною оцінкою нефінансових переваг.

Для вирішення цих проблем у дослідженні пропонується комплексна система оцінки рентабельності інвестицій, адаптована до потреб організацій та галузей. Рекомендації включають використання передових методів аналізу даних, сприяння культурі безперервного навчання та забезпечення співпраці зацікавлених сторін у розробці та оцінці програм безперервної освіти.

На основі дослідження було розроблено комплексну систему безперервної освіти для вимірювання рентабельності інвестицій у безперервну освіту в бізнес-організаціях з урахуванням як фінансових, так і нефінансових показників.

Ця робота сприяє академічній дискусії про розвиток людських ресурсів та організаційне навчання, надаючи практичні відомості про оцінку та вдосконалення ініціатив у сфері безперервної освіти. Результати дослідження підкреслюють трансформаційний потенціал програм безперервної освіти у стимулюванні інновацій, конкурентоспроможності та сталого успіху в динамічних бізнес-середовищах.

**Ключові слова:** безперервна освіта (CE), рентабельність інвестицій (ROI), навчання протягом усього життя, система оцінювання.

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