

Training and Developing Human Resources for Small and Medium-Sized Enterprises (SMEs) in Ho Chi Minh City in the Digital Transformation Era

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Abstract: In the era of rapid digital transformation, human resources play a critical role in enhancing the competitiveness and sustainable development of small and medium-sized enterprises (SMEs). This study investigates the current status of training and human resource development among SMEs in Ho Chi Minh City. Utilizing survey data from 100 SMEs and applying statistical analyses such as Cronbach's Alpha, EFA, and linear regression, the research identifies key gaps and challenges, including limited investment in digital skills, lack of systematic career development planning, and insufficient fostering of innovation culture. The study proposes nine strategic solutions focusing on comprehensive training investment, digital leadership development, promoting lifelong learning, and establishing clear career paths. These solutions aim to help SMEs effectively adapt to the evolving digital economy and enhance their long-term competitiveness.

Keywords: Human Resource Development; Training Strategy; SMEs; Digital Transformation; Innovation Culture; Career Development; Leadership Development.

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I. INTRODUCTION

Digital transformation has become an irreversible global trend, forcing organizations of all sizes and sectors to restructure their strategies, operations and human resource management. In particular, after the COVID-19 pandemic, the pace of digital transformation has accelerated, turning digital capabilities not only into a competitive advantage but also a condition for survival (World Economic Forum, 2023).

In Vietnam, small and medium enterprises (SMEs) account for more than 97% of the total number of enterprises and employ more than 60% of the workforce (VCCI, 2023). However, most SMEs lack a long-term digital capability development strategy, leading to a skills gap and resistance to new technologies. Ho Chi Minh City, as the largest economic center in Vietnam, currently has more than 170,000 SME enterprises, contributing about 40% of GDP and more than 50% of the total workforce of the city (Department of Planning and Investment of Ho Chi Minh City, 2024).

However, in the journey of digital transformation, the human resources of SMEs have revealed many weaknesses: limited digital skills, slow ability to adapt to new technologies,

and lack of a systematic digital capacity development strategy. In reality, despite having creative potential, if SMEs do not seriously invest in training and developing human resources, they will fall behind in the digitalization race.

Based on that reality, this article focuses on the following objectives: Analyzing the current status of training and human resource development at SMEs in Ho Chi Minh City in the digital transformation period, Assessing the challenges and opportunities in digital human resource training for SMEs and Proposing effective, feasible and suitable training solutions for the characteristics of small and medium enterprises in Vietnam. Thereby, the article hopes to contribute to providing more scientific arguments for policy planning and human resource strategies of SMEs in the digital age.

II. LITERATURE REVIEW

➤ Concept of Human Resource Training and Development

Armstrong (2020) believes that human resource training is the process of equipping employees with the knowledge, skills and abilities needed to perform their current jobs effectively. Human resource development is more long-term,

focusing on improving overall capacity, preparing for higher positions or adapting to future changes.

According to McLagan (1989), human resource development (HRD) is defined as the systematic process of organizing learning activities to change and improve employees' skills, knowledge, attitudes and behaviors to meet current needs and prepare for the future.

Unlike training (which mainly serves the current job), development is more long-term, focusing on: developing leadership capacity, developing management skills and personal strategies, and building a personal career development plan (Career Development Plan). In the context of digital transformation, training and human resource development does not stop at updating traditional professional skills but also includes: Digital competencies, Innovative thinking and Lifelong learning.

➤ *Concept of Small and Medium Enterprises (SMEs)*

According to Decree 80/2021/ND-CP of the Vietnamese Government, SME enterprises are defined based on the number of employees: less than 200 people, Total revenue/year: not more than 200 billion VND and Total capital: not more than 100 billion VND.

SMEs play an important role in the Vietnamese economy, but also face many challenges in terms of financial resources, technology and human resources.

➤ *Digital Transformation and New Requirements for Human Resources*

Digital transformation is the process of applying digital technology to all areas of business to improve operational efficiency, customer value and innovation.

According to the World Economic Forum (2023), the key skills in the digital age include:

- Basic technology skills (IT Literacy)
- Data analysis ability
- Critical thinking
- Adaptability and flexibility
- Ability to communicate via digital platforms

Digital transformation among SMEs in Vietnam has gradually gained traction, particularly following national policy directives such as Decision No. 749/QĐ-TTg in 2020. However, most SMEs still face significant barriers, including insufficient digital skills (17%), weak IT infrastructure (16.7%), and limited digital mindset (15.7%) (Cisco, 2020).

To support SMEs, the Vietnamese government launched the SMEdx program in 2022, offering digital readiness assessments and promoting 23 made-in-Vietnam digital platforms, including MISA ASP—a cloud-based accounting platform widely adopted by SMEs lacking in-house accounting staff. Despite these efforts, only 6% of SMEs consider themselves digitally advanced, with the majority still in early or intermediate phases.

While many SMEs have adopted piecemeal technological solutions, only 30% engage in in-house R&D, and 70% rely on externally purchased technologies. Government and industry associations primarily provide support in the form of information and funding; however, critical gaps remain in tax incentives, technology transfer, and deep workforce development.

Overall, the digital transformation of Vietnamese SMEs remains in a transitional phase, requiring stronger technical capacity, access to finance, and policies that encourage innovation, capability-building, and long-term strategic integration.

III. RESEARCH METHODOLOGY

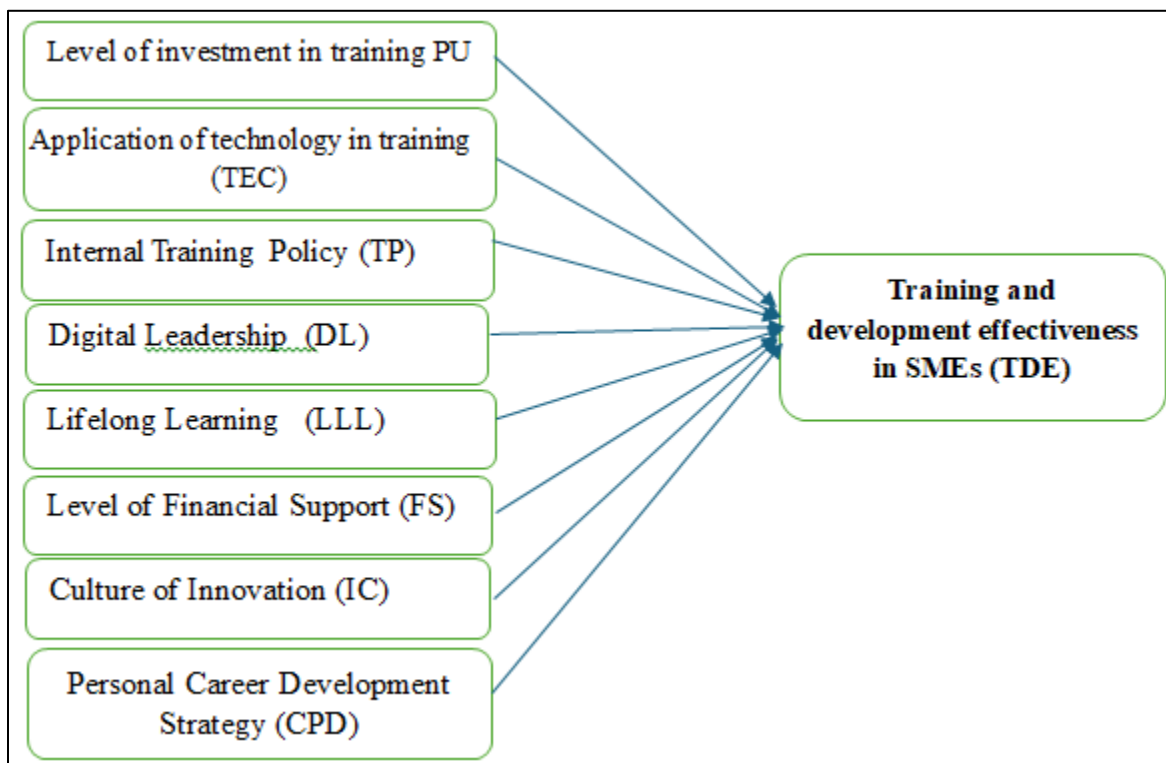
To achieve the research objectives, the article uses a mixed research method:

Qualitative: In-depth interviews with 10 human resource experts and SME managers about the training status and digital skills needs.

Quantitative: Design a survey with 45 questions on a 5-level Likert scale, Conduct a survey of 100 SME enterprises in Ho Chi Minh City, Analyze data using SPSS software: Descriptive statistics, Factor analysis (EFA), Cronbach's Alpha test.

The survey sample focuses on key industries: services, e-commerce, small manufacturing and technology.

IV. RESEARCH MODEL



V. RESEARCH RESULTS (FINDINGS)

Table 1. Cronbach's Alpha Results for Each Group of Variables

Variable group	Cronbach's Alpha
PU (Training investment)	0.821
TEC (Training technology)	0.834
TP (Internal training policy)	0.846
DL (Digital leadership capacity)	0.812
LLL (Lifelong learning)	0.827
FS (Financial support)	0.835
IC (Innovation culture)	0.822
CPD (Career development)	0.851
IL (Internal leadership)	0.844

Conclusion: All groups of variables have Cronbach's Alpha > 0.8 → Very good scale.

➤ EFA Results

KMO = 0.817 (> 0.7 => data is good enough for factor analysis

Bartlett test: Sig = 0.000 (< 0.05) → EFA eligible.

Total variance extracted = 62.3% (>50%) → meets the requirements.

Number of extracted factors: 4 main factors

➤ Regression Model

$TDE = \beta_0 + \beta_1 PU + \beta_2 TEC + \beta_3 TP + \beta_4 DL + \beta_5 LLL + \beta_6 FS + \beta_7 IC + \beta_8 CPD + \beta_9 IL + \epsilon$

- R² coefficient: 0.632 (The model explains 63.2% of the variation in SME Training and development effectiveness)
- Variables with Sig. < 0.05 (significant impact):
- PU, TEC, TP, DL, CPD, IL → strong and significant impact.
- Multicollinearity test: VIF of variables < 2 → No multicollinearity.

The above results show that the scale has high reliability, the EFA results are accurate, the model has a solid theoretical basis, the regression model explains the practice well (R² > 60%).

VI. CURRENT STATUS OF TRAINING AND HUMAN RESOURCE DEVELOPMENT IN SMES IN HO CHI MINH CITY

The survey results of 100 SMEs in Ho Chi Minh City show that:

- *Level of investment in training (PU)*: Enterprises have recognized the importance of training with Cronbach's Alpha reaching 0.821, however, investment is mainly formal, lacking long-term strategic orientation, and not closely linked to sustainable development goals.
- *Application of technology in training (TEC)*: Training technology (e-learning, LMS, AR/VR) is still in the testing phase in many SMEs. The official application rate is still low, showing the urgent need to promote comprehensive digitalization of training activities.
- *Internal training policy (TP)*: Training policy still lacks a system. Only 40% of enterprises build a training roadmap linked to career development, showing a lack of sustainable internal capacity building.
- *Digital Leadership (DL)*: SME managers are in the process of adapting to digital transformation, but there is a lack of formal training programs to enhance leadership in a digital environment.
- *Lifelong Learning (LLL) spirit*: Employees' self-learning spirit is at an average level, but there are many limitations in proactive attitudes to update new digital skills, requiring businesses to create motivation and encourage lifelong learning more strongly.

- *Financial support for training (FS)*: Financial support packages for training are still modest, mainly in the form of small tuition support, lacking scholarship policies and incentives for employees to study to improve their qualifications.
- *Innovation culture (IC)*: The culture of innovation is still weak. Businesses are often afraid of change, and have not really built an environment that encourages employees to accept creative failure as an inevitable part of development.
- *Personal career development (CPD) strategy*: Very few SMEs build a clear career path for employees. This deficiency reduces the motivation for long-term commitment and development of human resources.
- *Internal leadership (IL) capacity*: Internal leadership development has not been focused on. Succession planning programs are almost absent in SMEs, causing a great risk of a shortage of future leaders.

Thus, the research results show a significant gap between the awareness and practical actions of SMEs in training and developing human resources. Although businesses have recognized the importance of training and technology application, the implementation is still fragmented, lacking synchronous investment and long-term strategy.

Compared to modern human resource development theories (McLagan, 1989; Bass & Avolio, 1994), HCMC SMEs still lack internal leadership development programs, lack training strategies linked to personal development plans, and have not yet built a solid lifelong learning culture. If these limitations are not improved, they will seriously affect the adaptability and competitiveness of SMEs in the digital era, where technological skills and innovation are vital factors.

VII. RECOMMENDED SOLUTIONS (RECOMMENDATIONS)

Based on the analysis of the current situation, the authors propose the following solutions:

- Increase investment in systematic training: SMEs need to view training as a long-term investment, not only focusing on current skills but also developing leadership skills, innovative thinking, and digital skills for the future.
- Comprehensive application of technology in training: Actively deploy e-learning, LMS, microlearning; combine AR/VR technologies in technical and soft skills training.
- Develop internal training policies for the system: SMEs need to have a training plan linked to a long-term human resource development strategy, with a personalized career development roadmap.
- Develop digital leadership capacity: Build a digital leadership training program for middle managers and successors, equip them with flexible leadership skills in a digital environment.

- Encourage lifelong learning: Create learning motivation for employees with a reasonable reward-punishment mechanism, support learning costs, organize competitions on innovative ideas.
- Increase financial support for training: SMEs should cooperate with training organizations and training support funds to expand financial resources for employees to study and develop.
- Building a culture of innovation in the enterprise: Promote an open environment, accept creative risks, organize regular hackathons and innovation weeks to foster internal innovation.
- Establish a clear career development roadmap: SMEs need to build a clear career path and career plan for employees to increase engagement and develop sustainable human resources.
- Develop an internal leadership program: Implement internal mentoring and coaching programs to discover, nurture and retain potential young leaders.

VIII. CONCLUSION

The study analyzed the current status of training and human resource development in small and medium enterprises (SMEs) in Ho Chi Minh City in the context of digital transformation. The results showed that although SMEs have made initial efforts in training and technology application, there are still many limitations in developing leadership capacity, personal career strategies, and building a culture of lifelong learning. The solutions proposed in this study emphasize investing in systematic training, comprehensive technology application, internal leadership development, and establishing a strong culture of innovation. The synchronous implementation of these solutions will help Ho Chi Minh City SMEs improve their competitiveness and better adapt to the rapid changes of the digital age.

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