

Developing Human Resources for Digital Transformation: Evidence from a Vietnamese Securities Firm

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Abstract: Digital transformation is reshaping financial services by changing work processes, customer interaction, and organizational systems. In securities firms, where platform-based operations, real-time information processing, and technology-enabled service delivery increasingly define competitiveness, workforce capability has become a decisive condition for transformation success. This study examines the determinants of human resource development for digital transformation at Maybank Securities Vietnam. Drawing on human capital theory, the resource-based view, dynamic capabilities theory, and the knowledge-based view, the study proposes a model in which five organizational factors influence digital-oriented human resource development: leadership strategy and commitment, digital skills training and development, technological capability and digital infrastructure, learning culture and innovation, and HR policies supporting digital transformation. Using a mixed-method approach and survey data from 203 valid respondents, the study applies Cronbach's Alpha, exploratory factor analysis, Pearson correlation, multiple regression, and one-way ANOVA. The results show that four factors have positive and statistically significant effects on human resource development for digital transformation, namely digital skills training and development, technological capability and digital infrastructure, leadership strategy and commitment, and learning culture and innovation. Digital skills training and development emerges as the strongest predictor. By contrast, HR policies supporting digital transformation do not show a statistically significant effect in the final model. The findings suggest that digital human resource development depends more strongly on capability-building, infrastructure, leadership, and a learning-oriented culture than on policy support alone. The study contributes firm-level evidence from an emerging-market securities company and offers practical implications for financial service firms seeking to strengthen workforce capability in the digital era.

Keywords: Human Resource Development; Digital Transformation; Digital Workforce; Digital Skills; Securities Firm; Vietnam.

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I. INTRODUCTION

Digital transformation has become one of the defining organizational shifts of the contemporary business environment. Across industries, firms increasingly rely on digital platforms, workflow automation, data systems, and customer-facing technologies to improve operational efficiency and competitiveness. Yet the results of such initiatives remain uneven. In many cases, transformation does not fail because firms lack digital tools, but because they lack a workforce capable of learning, using, and adapting those tools effectively. Technology may trigger transformation, but human capability determines whether transformation becomes sustainable.

This issue is especially relevant in financial services and securities firms. Compared with many other industries, securities companies operate under conditions of real-time information processing, high regulatory pressure, intense competition, and growing customer expectations for digital convenience and service speed. Online account opening, digital trading systems, customer relationship management platforms, risk monitoring tools, and data-driven advisory services are no longer peripheral features; they are central to firm performance. In such a setting, employees are required not only to possess professional expertise, but also to work effectively with digital systems, adapt to changing workflows, and maintain service quality in a technology-intensive environment.

These developments have elevated the strategic importance of human resource development. In digitally transforming firms, HRD can no longer be treated as a routine support function focused only on conventional training. It must become a mechanism through which organizations develop digital skills, strengthen adaptability, promote continuous learning, and build a workforce aligned with digital transformation goals. Although the literature on digital transformation has expanded rapidly, studies explicitly examining human resource development in digital contexts remain limited, particularly at the firm level and within emerging-market financial services settings. In Vietnam, research has often focused on policy, general digital capability, or digitalization in broad business contexts, while empirical studies in securities firms remain scarce.

This study addresses that gap by examining the determinants of human resource development for digital transformation at Maybank Securities Vietnam. Specifically, it asks: which organizational factors most strongly shape digital-oriented human resource development in a Vietnamese securities firm? To answer this question, the study develops and tests a model including five determinants: leadership strategy and commitment, digital skills training and development, technological capability and digital infrastructure, learning culture and innovation, and HR policies supporting digital transformation.

The paper contributes in two ways. First, it provides empirical evidence from an emerging-market securities company, a context that remains underexplored in prior digital HRD research. Second, it clarifies that successful human resource development for digital transformation depends more strongly on capability-building, infrastructure, leadership, and organizational learning than on formal policy support alone.

The remainder of the paper is structured as follows. Section 2 reviews the literature and develops the hypotheses. Section 3 presents the methodology. Section 4 reports the empirical findings. Section 5 discusses the results. Section 6 outlines managerial implications, and Section 7 concludes the paper.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

➤ *Human Resource Development for Digital Transformation*

Human resource development traditionally refers to the process through which organizations improve employees' knowledge, skills, attitudes, and long-term professional potential. In the digital era, however, this concept has broadened substantially. Employees are now expected not only to perform established tasks effectively, but also to develop digital literacy, data awareness, platform-based collaboration skills, and the ability to adapt continuously to changing technologies and work structures. In this study, human resource development for digital transformation is understood as the

process through which firms enhance workforce capability so that employees can operate effectively in digital environments and contribute to the organization's broader transformation goals.

➤ *Theoretical Foundations*

This study draws on four complementary theoretical perspectives. Human capital theory emphasizes that employees' knowledge, skills, and adaptive capability constitute a productive form of capital, meaning that investments in digital skills and learning should be viewed as strategic rather than merely operational. The resource-based view suggests that valuable, rare, difficult-to-imitate, and well-organized resources can generate sustainable competitive advantage; a digitally capable workforce fits this logic more strongly than technology alone. Dynamic capabilities theory highlights the need for organizations to sense, seize, and reconfigure resources in rapidly changing environments, implying that HRD must support continuous adaptation and renewal. The knowledge-based view further reinforces the importance of knowledge creation, sharing, and application, especially in information-intensive sectors such as securities services. Together, these theories suggest that digital-oriented human resource development is shaped by both organizational conditions and strategic investments in workforce capability.

➤ *Leadership Strategy and Commitment*

Leadership matters in digital transformation because it defines strategic priorities, allocates resources, legitimizes change, and reduces uncertainty for employees. In transformation contexts, visible leadership commitment can help employees interpret digital change as a coherent organizational direction rather than a temporary technical intervention. When leaders communicate digital priorities clearly and support workforce development consistently, employees are more likely to engage in digital learning and adaptation.

- H1: Leadership strategy and commitment has a positive effect on human resource development for digital transformation.

➤ *Digital Skills Training and Development*

Training remains one of the most direct instruments for capability building. Under digital transformation, however, training must extend beyond technical system use to include digital collaboration, information security awareness, data use, and adaptive problem-solving. Well-designed digital training is therefore expected to strongly support workforce development in digital settings.

- H2: Digital skills training and development has a positive effect on human resource development for digital transformation.

➤ *Technological Capability and Digital Infrastructure*

Technology alone does not ensure successful transformation, but human resource development becomes difficult without reliable digital infrastructure. Employees need systems that are stable, accessible, secure, and integrated in order to learn, practice, and perform in digital work environments. This is especially true in securities firms, where daily work relies heavily on digital platforms and real-time information systems.

- H3: Technological capability and digital infrastructure has a positive effect on human resource development for digital transformation.

➤ *Learning Culture and Innovation*

Employees often develop capabilities not only through formal training, but also through experimentation, peer exchange, and continuous adaptation. A culture that supports learning and innovation encourages these processes and helps organizations sustain transformation over time. Because digital transformation is ongoing rather than episodic, learning culture is expected to be an important determinant of digital-oriented HRD.

- H4: Learning culture and innovation has a positive effect on human resource development for digital transformation.

➤ *HR Policies Supporting Digital Transformation*

HR policies can shape employee incentives and development behavior. If digital competence is integrated into recruitment, performance evaluation, development pathways, and recognition systems, employees are more likely to view digital capability as an expected and valuable part of their work. Accordingly, HR policy support is expected to positively influence digital-oriented HRD.

- H5: HR policies supporting digital transformation has a positive effect on human resource development for digital transformation.

➤ *Research Model*

Based on the above arguments, the study proposes that human resource development for digital transformation is positively influenced by five factors: leadership strategy and commitment (LS), digital skills training and development (DT), technological capability and digital infrastructure (TI), learning culture and innovation (LC), and HR policies supporting digital transformation (HP). Human resource development for digital transformation serves as the dependent variable.

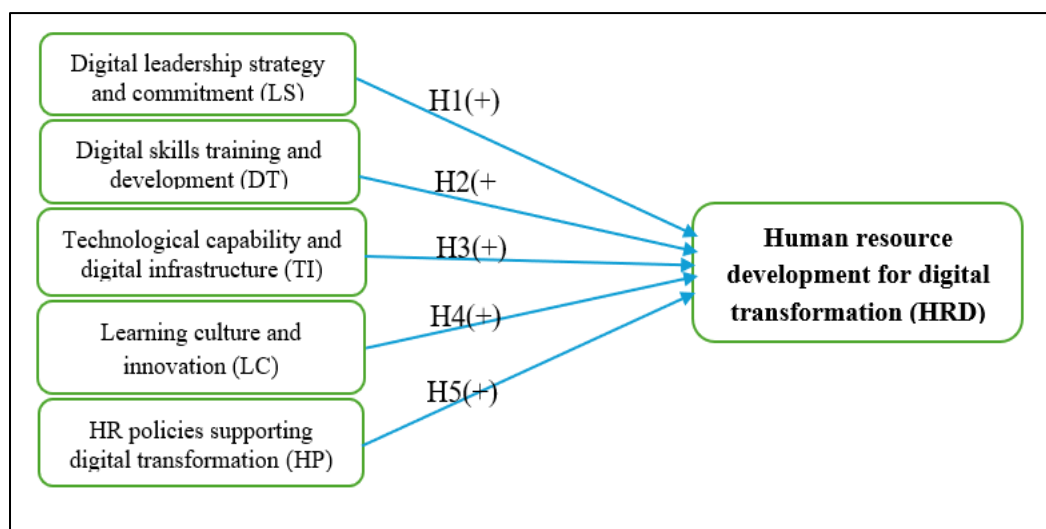


Fig 1. Proposed Research Model
Source: Developed by the authors.

III. METHODOLOGY

➤ *Research Design*

The study adopts a mixed-method approach conducted in two stages. A preliminary qualitative stage was used to consult experts, review the questionnaire items, and adjust the scales to fit the context of a Vietnamese securities firm. The formal quantitative stage then tested the proposed model using survey-based analysis. This design is suitable because it allows

contextual refinement of the measurement instruments before statistical testing of the hypotheses.

➤ *Measures*

The research model includes five independent variables and one dependent variable. Each construct is measured through four observed items, resulting in 24 observed variables in total. A five-point Likert scale ranging from strongly disagree to strongly agree was used. The measures were

adapted from prior literature and refined to reflect the practical context of digital transformation in a securities company.

➤ *Sample and Data Collection*

The study was conducted at Maybank Securities Vietnam. The respondents were managers, specialists, and employees working in the company. Because the study was carried out within a single firm, a purposive convenience sampling approach was used. Respondents were selected from those who were directly involved in the firm's operational, advisory, managerial, or support processes and were therefore in a position to evaluate the company's digital work environment and development practices. A total of 220 questionnaires were distributed, and 203 valid responses were retained for analysis. The final sample size is appropriate for the statistical techniques applied, including Cronbach's Alpha, exploratory factor analysis, correlation analysis, multiple regression, and one-way ANOVA.

➤ *Data Analysis*

The data were processed using SPSS. The analysis followed five main steps. First, descriptive statistics were used

to summarize respondent characteristics and scale patterns. Second, Cronbach's Alpha assessed internal consistency. Third, exploratory factor analysis examined construct validity. Fourth, Pearson correlation analysis assessed the associations between the variables. Fifth, multiple regression tested the hypotheses and identified the relative effects of the independent variables on human resource development for digital transformation. Finally, one-way ANOVA was used to test differences across selected respondent groups, specifically by job position and department.

IV. RESULTS

➤ *Respondent Profile*

The final sample includes 203 respondents. By job position, 49.8% are employees, 30.5% are specialists, and 19.7% are managers. By department, 20.7% work in brokerage, 41.9% in advisory, 19.7% in operations, and 17.7% in information technology. This composition provides perspectives from different functional and hierarchical levels within the firm.

Table 1. Respondent Profile

Category	Group	Frequency	Percentage
Job position	Employees	101	49.8
	Specialists	62	30.5
	Managers	40	19.7
Department	Brokerage	42	20.7
	Advisory	85	41.9
	Operations	40	19.7
	IT	36	17.7

Source: Calculated from survey data.

➤ *Descriptive Statistics, Reliability, And Validity*

The mean values of the six constructs range from 3.845 to 3.872, suggesting generally positive respondent evaluations of the company's digital transformation-related human resource conditions. Digital skills training and development shows the highest mean score, while technological capability and digital infrastructure records the lowest, though the differences are relatively small.

All scales exhibit acceptable to strong internal consistency. Cronbach's Alpha values range from 0.789 to 0.894. In addition, the KMO statistics are 0.965 for the independent variables and 0.815 for the dependent variable, while Bartlett's tests are significant at 0.000 in both cases. These results confirm that the scales are reliable and appropriate for further analysis.

Table 2. Reliability and Validity Summary

Construct	Items	Mean	SD	Cronbach's Alpha
Leadership strategy and commitment (LS)	4	3.852	0.725	0.870
Digital skills training and development (DT)	4	3.872	0.691	0.789
Technological capability and digital infrastructure (TI)	4	3.845	0.688	0.824
Learning culture and innovation (LC)	4	3.865	0.748	0.894
HR policies supporting digital transformation (HP)	4	3.862	0.739	0.846
Human resource development for digital transformation (HRD)	4	3.851	0.692	0.850

Source: Calculated from survey data.

Table 3. EFA Adequacy Statistics

Variable set	KMO	Bartlett's Sig.
Independent variables	0.965	0.000
Dependent variable	0.815	0.000

Source: Calculated from survey data.

➤ Correlation Analysis

All five independent variables are positively correlated with human resource development for digital transformation. The strongest bivariate relationship is found for leadership strategy and commitment, followed closely by digital skills training and development, technological capability and digital infrastructure, and learning culture and innovation. HR policies also show a positive relationship with the dependent variable. These results provide initial support for the proposed model.

Table 4. Pearson Correlation Matrix

Variable	LS	DT	TI	LC	HP	HRD
LS	1.000	0.698	0.715	0.747	0.750	0.792
DT	0.698	1.000	0.681	0.694	0.714	0.787
TI	0.715	0.681	1.000	0.711	0.665	0.783
LC	0.747	0.694	0.711	1.000	0.755	0.783
HP	0.750	0.714	0.665	0.755	1.000	0.754
HRD	0.792	0.787	0.783	0.783	0.754	1.000

All coefficients are significant at the 1% level.

Source: Calculated from survey data.

➤ Regression Results

The regression model is statistically significant and has high explanatory power. The model explains 79.5% of the variance in human resource development for digital transformation, with an adjusted R² of 0.790. The ANOVA result confirms model significance, and the Durbin–Watson statistic indicates no substantial autocorrelation. VIF values remain well below problematic levels, suggesting that multicollinearity is not a serious issue.

Table 5. Model Summary and ANOVA

Indicator	Value
R ²	0.795
Adjusted R ²	0.790
F	153.180
Sig.	0.000
Durbin–Watson	1.992

Source: Calculated from survey data.

Four of the five independent variables have positive and statistically significant effects on human resource development for digital transformation. Digital skills training and development is the strongest predictor, followed by technological capability and digital infrastructure, leadership strategy and commitment, and learning culture and innovation. HR policies supporting digital transformation do not show a statistically significant effect in the final model.

Table 6. Regression Coefficients

Variable	B	Beta	t	Sig.	Tolerance	VIF
Constant	0.039		0.275	0.784		
LS	0.204	0.214	3.726	0.000	0.316	3.169
DT	0.272	0.272	5.242	0.000	0.386	2.594
TI	0.254	0.252	4.871	0.000	0.388	2.581
LC	0.171	0.185	3.223	0.001	0.316	3.164
HP	0.087	0.093	1.629	0.105	0.322	3.109

Source: Calculated from survey data.

The standardized regression equation is:

$$HRD = 0.214LS + 0.272DT + 0.252TI + 0.185LC + 0.093HP$$

Table 7. Hypothesis Testing Summary

Hypothesis	Result
H1	Supported
H2	Supported
H3	Supported
H4	Supported
H5	Not supported

Source: Developed by the authors from regression results.

➤ *Group Differences*

One-way ANOVA reveals a significant difference by job position but not by department. This suggests that employees’ perceptions of digital-oriented human resource development vary more by role than by organizational unit.

Table 8. ANOVA by Job Position and Department

Grouping variable	F	Sig.	Conclusion
Job position	4.725	0.010	Significant difference
Department	0.425	0.735	No significant difference

Source: Calculated from survey data.

Post hoc Tukey analysis shows that the significant difference in job position is mainly between group 3 and the other two groups, while no significant difference exists between groups 1 and 2.

V. DISCUSSION

The findings reinforce a central argument in digital transformation research: organizations do not build digital capability through technology alone; they build it by developing people within supportive systems of learning, infrastructure, leadership, and adaptation. The strongest role of digital skills training and development confirms that capability-building remains the core driver of digital-oriented human resource development. In a securities firm, where employees must work through digital platforms, customer systems, and time-sensitive information flows, targeted training is essential for reducing capability gaps and improving workforce readiness. This finding is consistent with Audrin et al. (2024), who conceptualize digital skills at work as a multidimensional competence set, and with the broader logic of human capital theory, which treats investments in skills and learning as a source of long-term organizational value.

The significance of technological capability and digital infrastructure indicates that employees cannot develop digital competence effectively in the absence of reliable systems. Infrastructure is not the transformation itself, but it is a necessary enabling condition. In practical terms, employees are more likely to learn and perform digitally when systems are stable, integrated, and usable in daily work. This is especially important in securities services, where digital tools are closely tied to operational accuracy and service responsiveness. This result supports the resource-based view by suggesting that

infrastructure gains value when it is paired with a workforce capable of using it effectively.

Leadership strategy and commitment also show a meaningful positive effect. This finding suggests that digital transformation in workforce development is unlikely to succeed unless leaders provide direction, legitimacy, and visible support. In transformation settings, leadership helps employees interpret change as purposeful, reduces uncertainty, and encourages participation in development efforts. The result is also consistent with Wang et al. (2024), who highlight the role of digital leadership in enhancing digital performance through supportive organizational mechanisms.

Learning culture and innovation emerge as another significant driver. This result implies that formal training alone is insufficient. Employees also need an organizational environment that supports experimentation, peer learning, and continuous adaptation. Because digital transformation is ongoing rather than episodic, a learning-oriented culture helps firms sustain capability development over time. This finding aligns with dynamic capabilities theory, according to which organizations must continuously renew resources and routines in order to remain competitive in changing environments.

The non-significant role of HR policies supporting digital transformation is theoretically interesting. It does not suggest that HR policies are irrelevant, but rather that formal policy support may not yet be concrete, visible, or sufficiently digital-specific in this organizational context. Employees may respond more strongly to direct developmental conditions such as training, infrastructure, and leadership than to policy language or formal HR systems. This adds nuance to prior expectations in the digital HRM literature by showing that policy alignment

alone may be insufficient unless translated into observable developmental practices.

Finally, the group-difference results show that perceptions vary by job position rather than department. This suggests that the challenges and expectations of digital development are linked more closely to role characteristics than to departmental affiliation. As a result, digital HRD initiatives may be more effective when tailored to role groups rather than applied uniformly across the organization.

VI. MANAGERIAL IMPLICATIONS

The findings generate several implications for securities firms and other financial service organizations.

First, digital training should be treated as a strategic capability-building mechanism. It should be continuous, role-specific, and closely aligned with actual digital work requirements rather than treated as a one-off technical intervention.

Second, firms should strengthen technological infrastructure as a foundation for digital learning and performance. Employees need systems that support real-time work, secure information handling, and practical daily use. Infrastructure and human capability should therefore be managed as mutually reinforcing assets rather than separate domains.

Third, top management should make digital commitment visible through communication, resource allocation, and sponsorship of learning initiatives. Transformation becomes more credible when leadership support is observable rather than symbolic.

Fourth, organizations should cultivate a culture of continuous learning and innovation. This means encouraging knowledge sharing, experimentation, and collaborative problem-solving so that digital adaptation becomes part of everyday work rather than an exceptional activity.

Fifth, firms should review HR policies to ensure that digital competence is meaningfully embedded in appraisal, development, recognition, and career systems. Since policy support does not show a significant effect in the current model, managers should ask whether formal HR mechanisms are sufficiently visible and relevant from the employee perspective.

Sixth, development programs should be differentiated by job position. Since perceptions of digital-oriented human resource development differ across role groups, a single uniform development approach may not be optimal. More tailored interventions for managers, specialists, and operational staff may yield better results.

VII. CONCLUSION

This study examined the determinants of human resource development for digital transformation in Maybank Securities Vietnam. Using survey data from 203 valid respondents, the study found that digital skills training and development, technological capability and digital infrastructure, leadership strategy and commitment, and learning culture and innovation significantly and positively influence digital-oriented human resource development. Among these, digital skills training and development is the strongest predictor. HR policies supporting digital transformation, although positively signed, do not show a statistically significant effect in the final model.

The study contributes to the literature by providing firm-level evidence from an emerging-market securities company, a setting that has received limited attention in prior digital HRD research. It also supports the broader argument that digital transformation is not only a technology challenge, but fundamentally a human capability challenge. For managers, the findings underscore the importance of strengthening digital training, infrastructure, leadership commitment, and organizational learning as the key foundations of workforce development in digital transformation.

The study has limitations. It is based on a single-company sample, which limits generalizability, and it uses a cross-sectional design that captures perceptions at one point in time. Future research could extend the model across multiple firms, compare industries, or apply longitudinal and mixed-method designs to better understand how digital-oriented human resource development evolves over time.

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