# DIGITAL TRANSFORMATION AND EMPLOYEE PERFORMANCE: THE MEDIATIANG ROLE OF SELF EFFICACY IN COMMERCIAL BANKS OF BUTWAL SUB-METROPOLITAN CITY

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## Abstract

*The research question to be discussed in this study is how the dimensions of digital transformation, including adoption of new technology, digital culture, digital leadership, and digital training programs, can impact on employee performance in commercial banks in Butwal, Nepal. Besides, the research also examines how self-efficacy mediates the interplay between digital transformation factors and employee performance. The study used descriptive and causal design research. A purposive sampling technique was used to sample 258 employees who were employed in commercial banks in Butwal. The responses were collected by a structured questionnaire comprising of a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree). Partial Least Squares Structural Equation Modeling (PLS-SEM) was used in the data analysis. Outer loadings, Variance Inflation Factor (VIF), composite reliability, and Heterotrait Monomethod (HTMT) ratio were used to test the measurement model. Mean and standard deviation were calculated to give a summary of the responses. The hypothesized relationships and mediation effects were tested using bootstrapping procedures. The findings suggest that digital leadership positively influences the performance of employees the most with digital training programs coming second. The beta coefficients of both variables are relatively large compared to the rest of the digital transformation factors. Moreover, self-efficacy also plays a significant role in mediating digital culture, adoption of new technology, digital training programs, and performance of employees. This implies that the positivity of digital transformation initiatives on performance outcomes is increased by the fact that the employees have confidence in their digital skills. The results emphasize the importance of digital leadership and guided digital training courses in enhancing the performance of employees. The management of the bank needs to focus and work on development of leaders in the competencies of digital offerings and should invest in ongoing digital skills improvement programs. The effectiveness of the digital transformation in the banking field can be also maximized by reinforcing the self-efficacy of employees, which can be achieved through supportive leadership and target training.*

**Keywords:** *Digital transformation, digital culture, digital leadership, and digital training programs, Employee Performance*

## Introduction

Digital transformation has become a feature of contemporary organizations in the world. Among automated systems, advances in artificial intelligence, cloud computing, and analytics of data are changing the business models and transforming how worker activities are performed, working and innovating (Vial, 2021; Verhoef et al., 2023). The digital economy is now increasingly becoming a question of whether an organization can assimilate digital technologies and simultaneously, whether it can be able to produce a workforce that can adjust to technological change. It is worth noting that digital transformation is not merely a system introduction, but a complete revolution of the working process, the decision-making process, as well as the role of the employees. Therefore, successful transformation must go beyond the technological infrastructure and include an attitude change in the employees, the digital competence, and confidence (Susanti et al., 2023). Empirical evidence indicates that digitally enabled and digitally confident companies in terms of their workforce demonstrate their

capacity to move faster, be more innovative, and work well (Kraus et al., 2022). However, contrary to the high-level economies that have travelled a long distance in making sure that digital technologies are compatible with human capital, the developing environments still have challenges of streamlining the technological investment with labor readiness. Such creates the need to examine how digital transformation affects the performance of employees in the realms of psychological processes, including self-efficacy. The Nepal is also experiencing the rapid digital transformation with the urban municipalities demonstrating significant rate including the Butwal Sub-Metropolitan City where the process of modernization aimed at the efficiency of the administration and the delivery of the services to the population is also performed. Despite the policy program that is in place to promote e-governance, majority of municipal offices are still operating on manual systems, and this aspect is causing inefficiency, inaccuracy of data and delayed service delivery (Khadka and Shrestha, 2024). The transition to the digital platform requires the employees to deal with the citizen services, financial administration, and planning services using technology-oriented systems. However, the disparities in digital literacy, confidence and motivation among employees have introduced discrepancies in performance. However, without appropriate psychological preparation, the investments of digital infrastructure may not become the desired improvements of quality and efficiency of services. Accordingly, the problem of self-efficacy and its ability to determine the nexus of digital transformation measures and the performance of the employees must be understood to increase the governance performance in the settings of the emerging urban space. 13 The research paper is founded on Social Cognitive Theory (Bandura, 1986) which assumes that human behavior is the result of the interaction of personal factors, behavior patterns and the environment. Here self-efficacy a personal belief of an individual that he/ she can do some things plays a major role as a determinant of motivation, efforts, and resilience. Self-efficacy in digital workplaces is an assessment of the degree of confidence of the employees in digital technology and the capacity to adjust in the face of technological change. People with higher levels of computer/digital self-efficacy have also been pointed out to more readily accept new systems and persist in overcoming technical difficulties as well as clinging to performance under the adverse circumstances (Compeau and Higgins, 1995). This type of approach implies that technology alone does not predetermine higher performance, and the interaction of digital systems with psychological readiness of employees determines the performance of people. One of the mediating variables, thus, will be self-efficacy between digital transformation initiatives and employee performance.

It has also been suggested by the previous literature that self-efficacy can influence job satisfaction, motivation, and adjustment to the workplaces driven by technology (Judge and Bono, 2001; Park and Kim, 2020). The organizations that are undertaking digital training and establishing favorable learning experiences have higher chances of registering higher levels of employee engagement and output (Ali et al., 2021). The high self-efficacy of employees is likely to investigate digital tools, resolve technical issues independently, and improve learning on the organizational level. Most of the literature that has been available, however, has been its association with big corporations and the developed world, which often disregards the fact that academic institutions exist in the developing world where digital competence and human resource development is much different. Although the relationship between digital transformation and performance in organizations is increasing in literature, the psychological processes that may make digital projects translated into enhanced employee performance in developing country state agencies is a relatively under-researched topic. Little research has been done on the mediating role of self-efficacy on the local government institutions in Nepal where structural, lack of resources, and training opportunities may become constraining factors to successful digital adoption. Moreover, the literature available has been concerned with technical elements of digitalization that involve infrastructure, system design to a large

degree and relatively few concerns with human factors and confidence, attitude, and willingness to change behavior. The gap is particularly relevant to Butwal Sub-Metropolitan City where digital changes are already developed but the readiness of the employees and their performance outcomes are not evenly distributed. 30 Trying to address these gaps, the present study investigates the mediation of self-efficacy in the relationship between digital transformation and employee performance in Butwal Sub-Metropolitan City. By possessing a blend of knowledge gained via Social Cognitive Theory and the study of digital transformation, the research will illuminate on the extent to which the level of confidence the employees place on their digital abilities will influence their performance in the workplace in a transformational environment at the level of the public sector. The theoretical contribution of the research is that it has improved the models of digital transformation, introducing self-efficacy as one of the mediating variables. Practically, it offers evidence-based information to the policymakers and leaders of municipalities on how to achieve digital competence and confidence through training and favorable leadership. Lastly, the findings will most probably assist the local authorities in Nepal and other similar developing settings to ensure that the digital transformation projects will lead to measurable differences in the performance of the employees and outcomes of service delivery.

The specific objectives are as follows:
RO1: To examine the effect of adoption of new technology, digital culture, digital leadership, digital training program on employee performance.
RO2: To analyze the mediating role of self-efficacy on the relationship between dimensions of digital transformation and employee performance.

**Review of Literature**

*Theoretical Review:*
The theoretical foundation of the present study is based on the known psychological and organizational theories that describe how digital transformation can affect the performance of employees based on self-efficacy. In particular, the Social Cognitive Theory, Self-Efficacy Theory, Transformational Leadership Theory, and Digital Culture Theory shed light in a consistent manner regarding the connection between adoption of new technology, digital culture, digital leadership, digital training programs, self-efficacy, and employee performance.

*Social Cognitive Theory*

Social Cognitive Theory (Bandura, 1977, 1986) is based on assumption that human behavior is determined by interaction of the personal factor, environmental factors and behavioral acts. One of the key concepts of this theory is self-efficacy, which is a personal conviction in his/her ability to perform the tasks successfully. Bandura (1986) states that people who believe in their strong efficacy have a higher probability to see challenges as opportunities, persevere when faced with difficulties and perform better. In the environment of digital transformation, the organizational initiatives, including the adoption of new technologies, the supportive digital culture, the visionary digital leadership, and organized digital training, can be considered as the environmental determinants. This contributes to the confidence of the employees using digital systems. By means of the development of a high digital self-efficacy, employees are more likely to be ready to experiment with technology, embrace change, and stay highly productive (Susanti et al., 2023; Ghobakhloo and Iranmanesh, 2022). Poor self-efficacy, on the other hand, can lead to resistance and stress and lessen performance in digital transitions (Vial, 2021). In this way, the Social Cognitive Theory is directly helpful in supporting the framework as it describes impact of digital transformation and its practices (environmental factors) in the employee performance conditioned with the help of mediating mechanism i.e. self-efficacy (personal factor).

*Self-Efficacy Theory*

Self-Efficacy Theory (Bandura, 1977) goes further to explain that the belief of individuals in their capabilities is one of the factors that largely define motivation, effort, resilience, and performance of tasks. High self-efficacy employees are more assured of mastering new systems, overcoming technical issues, and getting used to technology-based workflows in digitally transforming organizations. This trust is transferred to a greater involvement and better work performance. Digital transformation dimensions, which are adoption of new technology, digital culture, digital leadership, and digital training programs, are the antecedents in the proposed framework, which enhances the digital competence and confidence of the employees. Mastery experiences are improved by effective digital training, social persuasion is offered by supportive leadership, and positive digital culture can decrease psychological barriers. All these factors enhance the self-efficacy, which in turn boosts the performance results. Thus, the Self-Efficacy Theory gives the theoretical rationale of considering self-efficacy as an intermediate between the digital transformation factors and employee performance in commercial banks.

*Transformational Leadership Theory*

Transformational Leadership Theory (Bass, 1985) focuses on the skill of the leaders to motivate, intellectually challenge, and enable the employees to perform better than expected. Transformational leaders help people to develop a powerful vision, foster innovation, and offer personalized assistance. 20 Digital leadership in the digital transformation context displays the trait of transformational leadership that encourages the employees to accept the change in technology. Digital vision should be promoted by leaders, who offer guidance in the face of technological change and invest in the development of employee digital capability to improve their confidence in the management of digital tools. According to research, transformational leadership has a positive impact on the performance of employees due to increased psychological empowerment and self-belief (Wang et al., 2021). In this regard, this theory helps the framework by detailing the way digital leadership enhances self-efficacy and has a direct relationship with the better performance of employees in commercial banks that have undergone changes to digital.

*Digital Culture Theory*

Digital Culture Theory emphasizes the significance of common values, norms, and behavior's that promote innovation, collaboration and technological flexibility in organizations (Sibassaha et al., 2025). Digital culture leads to transparency to change and knowledge sharing and lifelong learning. A supportive digital culture in commercial banks eliminates the fear of technological disruption and diminishes the likelihood of new systems being experimented with by employees. This climate enhances self-efficacy as it helps to offer psychological security and group support. Employees will be more engaged and perform better when they see that there is a correspondence between the organizational digital objectives and their respective roles. In addition, digital culture is a supplement to digital leadership and digital training programs forming a comprehensive ecosystem of sustainable change. Thus, the Digital Culture Theory helps to consider the framework and interpret the impact of organizational values and norms on the confidence and performance of employees when introducing digital transformation.

*Theoretical support of the Framework Integrated*

Together, these theories offer a powerful conceptual base of the study. The mediating role of self-efficacy is discussed in the social Cognitive Theory and Self-Efficacy Theory as the psychological process in which the digital transformation initiatives are transformed into better performance. Transformational Leadership Theory can be used to explain how digital

leadership can increase the confidence and engagement of the employees. The Digital Culture Theory describes the development of the supportive organizational environment through organizational norms and values that support self-efficacy and performance outcomes. Collectively, these two theoretical viewpoints support the proposed framework where embracing new technology, digital culture, digital leadership, and digital training programs will have both positive and indirect impact on employee performance by affecting self-efficacy in commercial banks.

*Empirical review*

Implementation of new technologies has always been associated with enhanced performance of employees in the digitally transforming organizations. According to Annisa et al. (2024), those employees who are actively integrated into digital tools to complete the daily tasks will show more efficiency, increased accuracy, and productivity. On the same note, Singh et al. (2021) established that the use of technology improves the responsiveness of employees to organizational needs, which leads to an overall improvement in compensated work. These results show that operational capability and performance reinforcement in digital transformation in case of effective implementation of the new technologies.

*H1: Adoption of new technology and employee performance have a strong relationship*.

Positive online culture helps in higher employee performance as well. Mollah et al. (2024) noted that the workers in the banks with high digital values show high adaptability and problem-solving skills, which have a positive effect on the performance results. Similarly, Sibassaha et al. (2025) noted that organizational cultural preparedness to digital transformation would promote collaboration, continuous learning, and sharing of knowledge all of which would improve productivity. These results indicate that digital culture offers an enabling environment, which facilitates employee effectiveness.

*H2: Digital culture and employee performance are significantly related.*

The digital leadership is of critical importance in the facilitation of the employee performance in the case of technological change. Wang et al. (2021) and Dewi et al. (2025) revealed that leaders who are willing to guide, motivate, and support employees throughout digital transformation enhance the efficiency of tasks, innovation, as well as performance. It has been demonstrated in banking industries of Malaysia and Indonesia that workers experiencing transformational digital leaders embrace digital systems faster leading to an increase in the level of performance. These results indicate the significance of leadership support in digital spaces.

*H3: Digital leadership is significantly related to the performance of employees*.

Online training also enhances the performance of the employees since it provides the employees with the technical expertise needed to properly use technology. According to the empirical sample of Nepalese banks, the use of digital training, which is specific and properly designed, improves efficiency and minimizes operational errors in digital processes (Simkhada, 2024; Sibassaha et al., 2025). Training enhances the willingness of employees to work with technological systems and helps to maintain the improvement of performance.

*H4: Digital training and employee performance have a significant relationship.*

Despite the positive effect of digital culture on performance, its impact can be indirect as it can play a role in the psychological process, i.e., self-efficacy. Workers in the workplace, where innovation, collaboration, and learning are promoted, have a better chance of becoming confident in their digital abilities (Simkhada, 2024; Mollah et al., 2024). Increased self-efficacy will help the employees use digital tools efficiently, be proactive and complete tasks more competently (Annisa et al., 2024; Singh et al., 2021). This implies that self-efficacy is a middle-ground that digital culture is converted into through performance.

*H5: Self-efficacy is a mediating variable between adoption of new technology and performance of employees*.

There is also empirical evidence that digital leadership has a direct & indirect impact in employee performance through self-efficacy. Encouraging, supporting, and offering a vision of technological shifts, transformational digital leaders make employees more confident in dealing with digital work (Wang et al., 2021; Dewi et al., 2025). Improved self-efficacy, in turn, facilitates active involvement in digital systems and alongside it, job performance (Annisa et al., 2024; Singh et al., 2021).

*H6: Self-efficacy mediates relationship existing between digital leadership and employee performance*.

Digital training programs also help to improve performance by increasing self-efficacy. Formal training improves the level of knowledge and technical skills of the employees and makes them more confident in the use of digital tools (Simkhada, 2024; Sibassaha et al., 2025). As a result, more flexible, efficient, and able to maintain high performance in the technology-oriented environment, employees who have more self-efficacy are better (Annisa et al., 2024; Singh et al., 2021).

*H7: Self efficacy mediates between the digital culture and performance of the employees.*

Moreover, employee performance is directly enhanced through digital training programs that enhance digital skills and allow executing tasks efficiently. Nepalese banking institutions prove that properly planned training programs make employees more prepared and productive at the digital workplace (Simkhada, 2024; Sibassaha et al., 2025). Meanwhile, the trust earned in the process of training strengthens the capacity of employees to be able to put the skills obtained into practice.

*H8: Digital training programs have a mediator role with employee performance, which is mediated by self-efficacy.*

**Research Methodology**

*Research design*

The research is based on descriptive & causal research designs used to explore the relationship between digital transformation and employee performance. With the help of these designs, one can have a clear insight into the current trends and delve into the links between the variables.

*Population and Sample size and Sampling method*

The sample of this research study includes all respondents in this research area. In the given study, the research area is the Butwal Sub-Metropolitan City, and the population will be all the employees who work in the various branches of the commercial banks that are situated at Butwal. These branches employee a total of 473 employees. Hence, the number of the study population is 473. Table 1 contains information about the banks and the number of employees they have respectively.

*Table 1: Total employees of commercial banks in Butwal*

| Sr. NO. | Name of commercial bank | Number of employees |
|---|---|---|
| 1 | Global IME Bank | 35 |
| 2 | Nepal Investment Mega Bank | 25 |
| 3 | Nabil Bank | 40 |
| 4 | Kumari Bank | 33 |
| 5 | Prabhu Bank | 20 |
| 6 | Laxmi Sunrise Bank | 22 |
| 7 | Himalayan Bank | 21 |

| | | |
|---|---|---|
| 8 | Prime Bank | 32 |
| 9 | Agriculture Development Bank | 19 |
| 10 | NMB Bank | 40 |
| 11 | Rastriya Banijya Bank | 32 |
| 12 | Nepal Bank | 36 |
| 13 | Siddhartha Bank | 28 |
| 14 | Citizen Bank | 85 |
| 15 | Sanima Bank | 22 |
| 16 | NIC Asia Bank | 31 |
| 17 | Everest Bank | 30 |
| 18 | Machhapuchhre Bank | 20 |
| 19 | Nepal SBI Bank | 21 |
| 20 | Standard Chartered Bank | 8 |
| | Total | 473 |

Sample refers to a section of population or a portion of population and represented by n. The total sample size in this study has been derived by using the formula which was developed by Yamane (1967). When population size is already known, we use the Yamane formula for calculating the sample size which is presented by:

• n= N/1+Ne2

Where,

• n= sample size,

N= Population size,

& e= Margin of error (MOE),

e=0.05 based on research condition Thus, the sample size of the study is n = 258

*Tool for data collection*

The instrument of survey that was applied for in the collection of data was a self-administered questionnaire. It was constructed on operational definitions of past literature. A five-point Likert scale (5 = Strongly Agree, 4 = Agree, 3 =Neutral, 2 = Disagree, and 1 = Strongly Disagree) was used to find out the responses of the participants to a set of questions, amounting to 30 items. To achieve clarity and accuracy, pilot test was done by administering the questionnaire to a sample of 30 respondents. There were 258 out of 450 distributed questionnaires that were successfully completed, which is equivalent to 88 percent response rate. 3.4Data analysis statistical tools: There were several statistical tools that were used in the study depending on the type of data. The statistical methods that are applicable to such a study are reliability test, outer-loading, VIF, HTMT, mean, standard deviation, correlation, bootstrapping, hypothesis testing.

*Regression model:*

$Y= a + b1x1 + b2x2 +b3x3 + b4x4$

Were, Y: dependent variable

a: constant

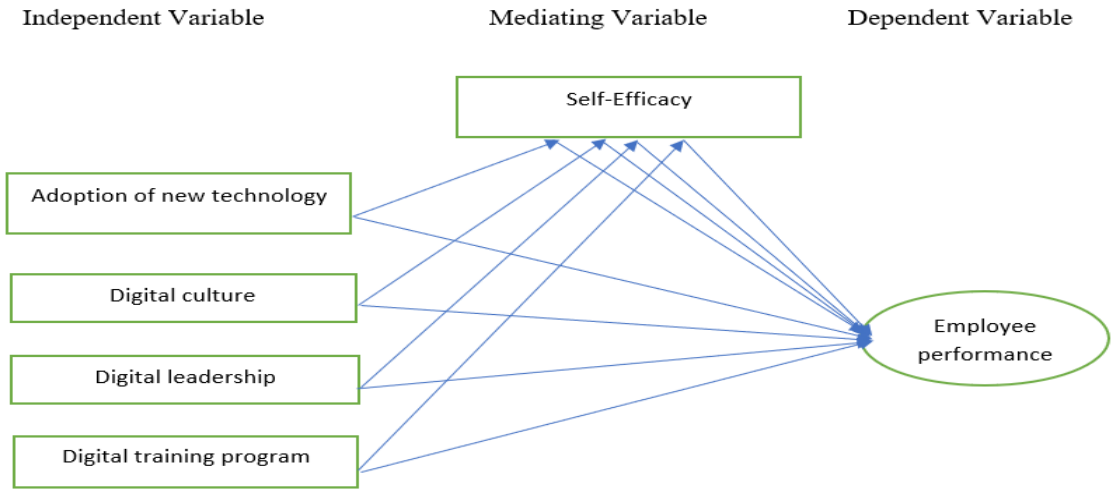
b1, b2, b3, b4: Beta coefficient

x1, x2, x3, x4: independent variables

## Research framework:

**Table 1**

*Research framework*




*Note.* Adapted from Annisa et al. (2024); Shwedeh et al. (n.d)

## Result and Analysis

*Measurement Items Assessment*

*Table 1: Assessment of measurement scale items*

| Name | Outer loadings | VIF | Mean | Standard deviation |
|---|---|---|---|---|
| **ANT1** | 0.799 | 2.386 | 4.233 | 1.868 |
| **ANT2** | 0.803 | 3.396 | 4.682 | 2.111 |
| **ANT3** | 0.82 | 3.3 | 4.574 | 2.09 |
| **ANT4** | 0.818 | 2.218 | 4.202 | 1.948 |
| **ANT5** | 0.713 | 1.323 | 4.558 | 1.767 |
| **DC1** | 0.723 | 1.566 | 5.174 | 1.69 |
| **DC2** | 0.8 | 2.468 | 5.213 | 1.496 |
| **DC3** | 0.714 | 2.038 | 4.787 | 1.765 |
| **DC4** | 0.889 | 3.756 | 5.934 | 1.425 |
| **DC5** | 0.815 | 2.923 | 6.252 | 1.322 |
| **DL1** | 0.8 | 1.805 | 4.252 | 1.843 |
| **DL2** | 0.78 | 2.167 | 4.221 | 1.957 |
| **DL3** | 0.857 | 2.691 | 3.256 | 1.865 |
| **DL4** | 0.86 | 3.436 | 3.798 | 1.948 |
| **DL5** | 0.779 | 2.647 | 4.446 | 1.941 |
| **DTP1** | 0.868 | 3.663 | 5.585 | 1.482 |
| **DTP2** | 0.848 | 2.848 | 5.783 | 1.449 |
| **DTP3** | 0.866 | 2.752 | 5.643 | 1.464 |
| **DTP4** | 0.858 | 2.792 | 4.973 | 1.69 |
| **DTP5** | 0.768 | 2.435 | 4.605 | 1.716 |
| **EP1** | 0.887 | 3.024 | 5.43 | 1.419 |
| **EP2** | 0.899 | 3.524 | 5.492 | 1.439 |
| **EP3** | 0.764 | 2.309 | 5.504 | 1.588 |

| | | | | |
|---|---|---|---|---|
| **EP4** | 0.846 | 2.472 | 5.186 | 1.566 |
| **EP5** | 0.811 | 2.097 | 4.81 | 1.663 |
| **SE1** | 0.871 | 3.01 | 5.667 | 1.386 |
| **SE2** | 0.93 | 4.817 | 5.174 | 1.667 |
| **SE3** | 0.889 | 3.332 | 5.008 | 1.737 |
| **SE4** | 0.889 | 3.156 | 5.159 | 1.822 |
| **SE5** | 0.737 | 1.633 | 5.612 | 1.405 |

**Source:** Compile by Author

Results of this measurement model show that there are high reliability and validity among constructions. Outer loadings of most items were above the recommended value of 0.70, which validates the reliability of the indicators, and only a small number of items were slightly above the minimum acceptable value (e.g., ANT5 = 0.713, DC1 = 0.723, DC3 = 0.714, SE5 = 0.737). The values of Variance Inflation Factor (VIF) were within the interval of 1.3 to 4.8, which is lower than the critical value of 5 so that there are no issues with multicollinearity. The consistency of the items in Adoption of New Technology (ANT) was ranging at 0.713-0.82, whereas Digital Culture (DC) demonstrated high reliability (DC4 (0.889) and DC5 (0.815)) as the important indicators. The range of the Digital Leadership (DL) items is 0.779-0.86 which supports the significance of leadership in digital transformation. Digital Training Programs (DTP) showed high loadings (0.768-0.868), which proved training as a predictable variable of employee capability. There was a strong loading of Employee Performance (EP) items (0.764-0.899), with the highest reliability of EP2 (0.899) and EP1 (0.887) indicating that performance was an outcome construct that is stable. The mediating variable, Self-Efficacy (SE) had very high reliability with loadings of 0.737-0.93 and SE2 (0.93) appeared to be the best predictor of digital transformation and employee performance, which highlights the importance of this variable to mediate the relationship between the two. Descriptive statistics indicated that there were mean values in the range of 3.25 and 6.25 with moderate standard deviations (1.3 to 2.1) indicating that the respondents tended to positively view the digital transformation initiatives, but there was a range. Overall, results from this research prove that the following dimensions from digital transformation include technology adoption, digital culture, leadership, and training as valid and reliable predictors of employee performance, and self-efficacy is a powerful psychological process that adjusts the influence of digital initiatives in commercial banks in Butwal Sub-Metropolitan City

*Quality Criteria Assessment*

*Table 2:* Constructing Reliability and Validity

| | Cronbach's alpha | Composite reliability (rho-a) | Composite reliability (rho-c) | Average variance extracted (AVE) |
|---|---|---|---|---|
| ANT | 0.855 | 0.873 | 0.893 | 0.627 |
| DC | 0.849 | 0.861 | 0.892 | 0.625 |
| DL | 0.874 | 0.878 | 0.909 | 0.666 |
| DTP | 0.9 | 0.928 | 0.924 | 0.71 |
| EP | 0.898 | 0.908 | 0.924 | 0.71 |
| SE | 0.915 | 0.919 | 0.937 | 0.75 |

The analysis of reliability and validity of your constructs indicates that they possess very high psychometric qualities and can be used in scholarly publication. Cronbach alpha of all the constructs was between 0.849 and 0.915 meaning internal consistency is high because the recommended value is 0.70. Both rho-a and rho-c values were also between 0.861 and 0.937;

this also supports the construct reliability. Significantly, all the constructions displayed values of Above Average Variance Extracted (AVE) of 0.625 to 0.750, indicating that the validity of convergent validity is satisfactory. Self-Efficacy (SE) had the most suitable reliability (Cronbach, alpha = 0.915, rho-c = 0.937, AVE=0.750) and this is important because it is a very strong construct as a mediating variable. The other construction that was quite reliable was Employee Performance (EP) with alpha=0.898, rho-c= 0.924 and AVE= 0.710. Digital Training Programs (DTP) and Digital Leadership (DL) had high reliability and validity, and Adoption of New Technology (ANT) and Digital Culture (DC) also reached the expected levels, proving that they can be used as independent predictors. All in all, the findings suggest sound evidence that measuring models are reliable & valid and that the proposed connections exist between the digital transformation dimensions, self-efficacy, and the performance of the employees in commercial banks of Butwal Sub-Metropolitan City.

*Discriminant table*

*Table 3:* HTMT ratio of correlation

| | ANT | DC | DL | DTP | EP | SE |
|---|---|---|---|---|---|---|
| ANT | | | | | | |
| DC | 0.514 | | | | | |
| DL | 0.462 | 0.823 | | | | |
| DTP | 0.861 | 0.413 | 0.412 | | | |
| EP | 0.491 | 0.798 | 0.831 | 0.367 | | |
| SE | 0.555 | 0.87 | 0.867 | 0.442 | 0.878 | |

***Table 3*** presents the outcomes of the discriminant validity in terms of Heterotrait- Monotrait (HTMT) ratios of correlations. On the whole, the HTMT values show that discriminant validity between the constructions is largely determined. The majority of the HTMT ratios are lower than the recommended value of 0.90, which might indicate that each constructs a conceptually dissimilar phenomenon of digital transformation, self-efficacy, and employee performance (Henseler et al., 2015). Particularly, the values of HTMT between adoption of new technology (ANT) and the rest of constructs are 0.4620.861, which are within acceptable limits and show that ANT is empirically different to digital culture, digital leadership, digital training programs, employee performance, and self-efficacy. On the same note, the correlations between digital culture (DC), digital leadership (DL), and digital training programs (DTP) present HTMT values (below 0.90) which indicate adequate levels of discriminant validity between these dimensions of digital transformation. Nonetheless, there are also relatively high values of HTMT, that is, between self-efficacy (SE) and employee performance (EP) (0.878), digital culture and self-efficacy (0.870) and digital leadership and self-efficacy (0.867). These values are still in the acceptable range, but they imply the high conceptual relatedness of these constructions, which is hypothetically correct as the role of leadership and culture in the formation of the confidence and performance of employees.

*Model fit*

*Table 4: Model Fit Indices*

| | Saturated model | Estimated model |
|---|---|---|
| SRMR | 0.073 | 0.076 |
| d_ULS | 0.831 | 0.848 |
| d_G | n/a | n/a |
| Chi-square | ∞ | ∞ |
| NFI | n/a | n/a |

In Table 4**,** the estimated model fits the data well. The value of SRMR of the estimated model is 0.076, which falls short of the widely known cutoff level of 0.08. This implies that the disparities between the relationships observed and modeled are minimal, indicating that there is a good fit in general (Hu and Bentler, 1999; Hair et al., 2022). The SRMR of the saturated model (0.073) also confirms the fact that the model structure is close to the observed data. 24 The d_ULS of the saturated (0.831) and the estimated (0.848) models are low and at a very close proximity, and this implies that, there is no significant difference between the saturated model and the estimated model. This implies that the relationships between the constructions in question are sufficient to describe the underlying data structure that is deemed to be satisfactory in the context of PLS-SEM analysis (Henseler et al., 2016). Other measures like d G, chi-square and NFI are indicated to be not available or infinite, which is typical of PLS-SEM since these measures are primarily intended to assess covariance-based SEM and do not feature prominently in assessing model fit in variance-based models (Hair et al., 2022).

*Hypothesis Testing*

*Table 5: Hypothesis testing by using bootstrapping*

| Hypothesis | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | T statistics (\|O/STDEV\|) | P values | Decision |
|---|---|---|---|---|---|---|
| ANT -> EP | 0.177 | 0.177 | 0.07 | 2.545 | 0.011 | Accepted |
| ANT -> SE | 0.267 | 0.266 | 0.065 | 4.126 | 0 | Accepted |
| DC -> EP | 0.033 | 0.033 | 0.066 | 0.509 | 0.611 | Rejected |
| DC -> SE | 0.169 | 0.17 | 0.054 | 3.149 | 0.002 | Accepted |
| DL -> EP | 0.571 | 0.57 | 0.096 | 5.921 | 0 | Accepted |
| DL -> SE | 0.66 | 0.657 | 0.053 | 12.563 | 0 | Accepted |
| DTP -> EP | 0.122 | 0.12 | 0.058 | 2.077 | 0.038 | Accepted |
| DTP -> SE | 0.125 | 0.124 | 0.057 | 2.189 | 0.029 | Accepted |
| SE -> EP | 0.245 | 0.246 | 0.099 | 2.484 | 0.013 | Accepted |
| DL -> SE -> EP | 0.162 | 0.162 | 0.067 | 2.415 | 0.016 | Accepted |
| DTP -> SE -> EP | 0.031 | 0.03 | 0.018 | 1.725 | 0.085 | Rejected |
| ANT -> SE -> EP | 0.066 | 0.064 | 0.029 | 2.251 | 0.024 | Accepted |
| DC -> SE -> EP | 0.041 | 0.042 | 0.022 | 1.885 | 0.059 | Rejected |

The results that came from hypothesis testing were based on bootstrapping procedure introduced in table no.5. These results indicate that the use of new technology (ANT) positively influences employee performance (β=0.177, P = 0.011) and self-efficacy (β =0.267, p < 0.001). This implies that, when employees embrace new technologies, they are more confident in managing the work tasks and as such, their performance will be enhanced. Digital culture (DC) does not significantly influence employee performance (β = 0.033, p = 0.611), which implies that a friendly digital culture does not necessarily result in a better employee performance outcome. Nevertheless, DC does have significant effects on self-efficacy (β = 0.169, p= 0.002), which suggests that high digital culture fosters the confidence of the employees in their ability to perform, although its direct effect on performance may be less significant. 4 4 Digital leadership (DL) has a positive but significant impact on employee

performance (β = 0.571, p < 0.001) and self-efficacy (β = 0.660, p < 0.001). This is where importance of the leaders comes out strongly to lead employees through digital change and instill confidence which translates directly to increased performance. Likewise, digital training programs (DTP) are found to be of great importance in the performance of employees (β = 0.122) (p = 0.038) and their self-efficacy (β = 0.125, p = 0.029), which means that specific training is much better to make an employee feel capable and productive in a digital workplace. Also, self-efficacy (SE) itself positively influences employee performance significantly (β = 0.245, p = 0.013), which proves its centrality as one of the primary drivers of employee performance. In terms of mediation effects, self-efficacy is a significant mediator between digital leadership and employee performance (β = 0.016 =0.162, p= 0.016) and adoption of new technology and employee performance (β = 0.024 =0.066, p= 0.024). This implies that these dimensions of digital transformation contribute to the performance strengths partly because it helps to boost the confidence of employees in their capacity. Nevertheless, the mediation of self-efficacy in the associations between the digital training programs and employee performance (p = 0.085) and between the digital culture and employee performance (p = 0.059) are not backed up.

*Table 6:* Regression

| | R square | Adjusted R square |
|---|---|---|
| EP | 0.743 | 0.738 |
| SE | 0.789 | 0.786 |

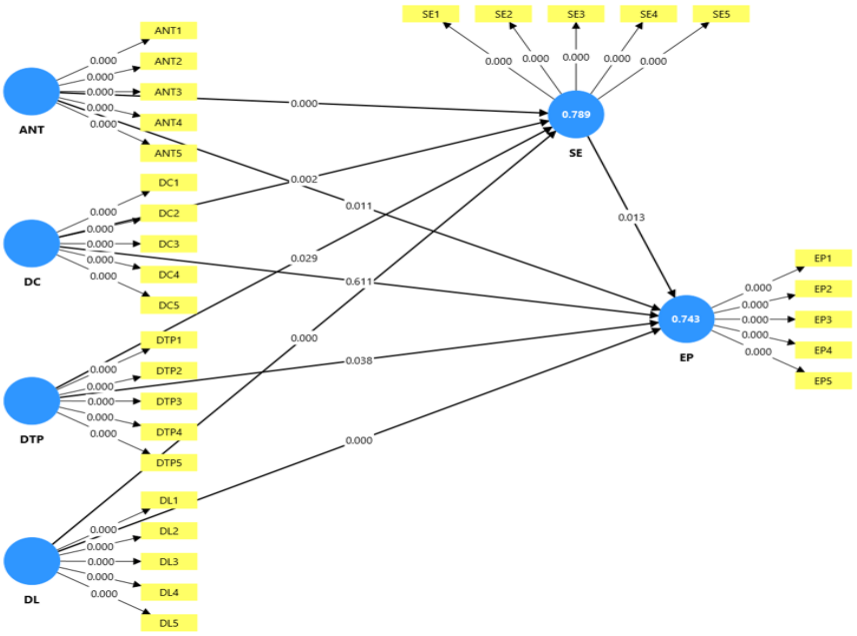
*Table 6* gives the R-squared (R 2) s of the dependent variables employee performance (EP) and self-efficacy (SE). The value of the R2 is in the fraction of variance in dependent variable which is accounted by the independent variables in model. In this case of employee performance (EP), the adjusted R2 is 0.738, and the R2 is 0.743. This implies that the combined impact of new technology, digital culture, digital leadership, digital training programs, and self-efficacy accounts to about 74.3 percent of the variation in the employee performance. The adjusted R2 (0.738) is the number of predictors in the model that it explains a great deal of performance variance with minimal overfitting. In self-efficacy (SE), the adjusted R 2 is 0.786 and the R 2 is 0.789. This shows that close to 78.9 percent of the variance in self-efficacy is accounted by the digital transformation variables e.g. adoption of new technology, digital culture, digital leadership and digital training programs. The value of the R 2 indicates that the model is highly practical in the determination of the determinants of self-efficacy at the workplace.

The path model reveals that such dimensions of digital transformation as the adoption of new technology, digital culture, digital leadership, and digital training programs have both direct and indirect impacts on employee performance via self-efficacy. All four dimensions play a big role in self-efficacy and consequently this is a good predictor of employee performance. Digital leadership has the greatest direct and indirect effects, suggesting it lies at the center of increasing the confidence of employees and improving performance outcomes.

*Structural Equation Model*

*Figure 2: path relationship diagram*

The adoption of new technology also presents significant impact, which confirms the essence of the active involvement with technologies. The digital culture has a less direct impact on performance, yet it has an indirect impact by creating self-efficacy. The effect of digital training programs on performance and confidence is positive, but their indirect impact is different. All the values of the coefficient of determination suggest a strong explanatory power (R2 of self-efficacy = 0.789; R 2 of employee performance = 0.743).




These values affirm that the proposed model demonstrates a large percentage of variance in both constructs. Overall, the evidence points to the fact that self-efficacy is the key psychological process that connects the digital transformation initiatives to the high rates of employee performance in commercial banks of the Butwal Sub Metropolitan City.

**Discussion**

The findings reveal good empirical data that digital transformation is an effective factor in improving employee performance in Nepalese commercial banks. Notably, the results also single out self-efficacy as a key mediator in this connection. The most significant factor influencing the performance of the employees was digital leadership. Its profound direct and indirect impacts underscore the need of visionary leadership in leading the employees in the process of technological changes. Leaders that state clear digital strategies, support, and promote the learning process help to increase the level of employee belief and flexibility. This result fits the Transformational Leadership Theory and the previous studies that focus on leadership support in digital change (Wang et al., 2021; Dewi et al., 2025). The implementation of new technology also proved to have a considerable positive influence in the work of employees and their self-efficacy. Staff members who embrace electronic systems will have better confidence in their technical skills resulting in enhanced productivity and work output. This observation is in line with the Social Cognitive Theory that highlights mastery experiences in intensifying the performance and self-belief (Bandura, 1986; Compeau & Higgins, 1995). It was discovered that digital training programs had a positive impact on the performance and self-efficacy of employees. Nevertheless, mediation by self-efficacy was not as strong as leadership and technology adoption. It implies that training can lead to a level of technical competence, however, the psychological effect might be influenced by conducive leadership and the chance to apply the learning in practice. This has been also found in the bank training situations in developing countries, where organizational reinforcement enhances training effectiveness (Simkhada, 2024). Digital culture, on the contrary, did not affect performance as much, but it had a significant impact on self-efficacy. This implies that digital culture is a enabling factor that instills staff confidence and not necessarily performance outcomes. The culture in Nepalese banks that fosters innovation and learning seems to have an indirect effect on performances through enhancing the belief of the employees in their digital abilities. All in all, the findings prove that digital transformation is not only that

technological process, but it is also human oriented agenda. The self-efficacy is an important tool of converting the attempts of digital transformation into the quantifiable change of the performance of the employees.

## Conclusion and Implications

This research examined the association between dimensions of digital transformation and the performance of the employees, with self-efficacy as a mediator, in commercial banks of the city of Butwal sub metropolitan. The results show that the most significant factors to influence employee performance are digital leadership and adoption of new technology, both directly and indirectly via self-efficacy. The positive role is played by digital training programs and; the indirect but supportive role is played by digital culture. The findings highlight the fact that it is the confidence of employees in digital capabilities that should be central in transforming technological investment into performance gains. Digital transformation, thus, involves focusing on leadership, training, organizational culture, and psychological empowerment at the same time. This paper has some contributions to the literature of digital transformation by empirically establishing self-efficacy as a key mediating factor between digital initiatives and employee performance. It combines Social Cognitive Theory and digital leadership approaches to explain, in detail, the influence of the psychological factors on the outcomes of performance in digitally transforming organizations in developing economies. The management of the bank ought to focus on the creation of digital leadership skills to enhance the confidence of employees and enable them to embrace technology. Digital infrastructure investments must be accompanied by initiatives to promote self-efficacy, including a practical training, a mentoring system, and digital achievements recognition. Continuous, job-centered and application-centered training programs should be utilized to ensure the maximization of the improvement in the performance.

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