

Enhancing Service Quality Through Digital Learning: Evidence from Typsy-Based Training in the Hotel Industry

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Keywords

Digital Training; Typsy; Learning Engagement; Employee Competence; Service Quality; Hospitality Industry; Hotel Employees.

ABSTRACT

The hospitality industry increasingly adopts digital learning platforms to improve employee capabilities and maintain service quality. However, empirical evidence regarding the relationships among digital training effectiveness, learning engagement, employee competence, and service quality remains limited, particularly within hotel organizations. This research investigates the influence of the perceived effectiveness of Typsy-based training on learning engagement, employee competence, and service quality among employees of Swiss-Bel hotel Bogor. A quantitative explanatory approach was employed using a cross-sectional survey design. Data were collected from 100 hotel employees who actively used the Typsy digital learning platform. The data were analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS. The findings reveal that the perceived effectiveness of Typsy-based training significantly influences learning engagement and employee competence. Learning engagement also has a positive effect on employee competence, while employee competence demonstrates the strongest influence on service quality. The results indicate that digital training effectiveness contributes both directly and indirectly to service quality through the development of employee competence. This study extends the literature on digital workplace learning and hospitality human resource development by demonstrating the importance of employee engagement and competence as mechanisms linking digital training to service outcomes. The findings also provide practical implications for hotel managers seeking to utilize digital learning platforms as strategic tools for competency development and service excellence.

INTRODUCTION

The rapid digital transformation of the hospitality industry has substantially altered not only customer service operations but also employee development practices. Hotels increasingly adopt digital learning systems to enhance workforce capabilities, support continuous learning, and improve service quality. Online training platforms offer greater flexibility, accessibility, and scalability compared with conventional classroom-based training, making them particularly suitable for hospitality organizations operating under shift-based work systems.

One hospitality-specific platform that has gained considerable attention is Typsy, an online training platform designed for hospitality employees. The platform provides microlearning content through short videos, practical demonstrations, quizzes, and workplace-based learning activities. By allowing employees to access learning materials anytime and

anywhere, Typsy addresses many operational constraints commonly experienced in hotel environments. Such flexibility is particularly important in the hospitality industry, where employee schedules often limit participation in traditional training programmes.

Previous studies generally indicate that effective online training contributes positively to employee development. Online learning has been found to improve knowledge acquisition, motivation, and professional competencies (Pratiwi et al., 2026; Zhang et al., 2023; Rathnasekara et al., 2025). In hospitality settings, online training programmes have been associated with improvements in employee productivity, satisfaction, and job-related skills (Rabbo & Abdel-Aleem, 2022). Similarly, Djaswandini et al. (2025) reported that training effectiveness significantly influenced employee performance in four-star hotels in Jakarta.

The effectiveness of digital training, however, is not solely determined by the availability of learning materials. Learning engagement has emerged as an important factor explaining whether employees actively participate in and benefit from training activities. Learning engagement refers to employees' cognitive, emotional, and behavioural involvement in the learning process. Studies suggest that meaningful content, interaction, feedback, and practical activities positively influence engagement in online learning environments (Wavre & Kuknor, 2023; Akpen et al., 2024).

Several studies support the positive relationship between online training and learning engagement. Platform usability, content quality, and interactivity have been found to encourage greater employee participation and involvement (Shakeel & Shaikh, 2025). Silva and Almeida (2023) demonstrated that online training interventions improved both engagement and performance outcomes, while Xu et al. (2024) reported that increased training access during the pandemic contributed to higher employee engagement in hotel organisations. Nevertheless, empirical findings are not entirely consistent. Hashem et al. (2022) found no significant effect of online training on employee engagement during remote working conditions, indicating that organisational context and support may influence the effectiveness of digital learning initiatives.

Employee competence represents another important outcome of online training. Effective digital learning enables employees to acquire knowledge, improve skills, and develop confidence in performing their work responsibilities. Previous studies have shown that online training directly contributes to competency development through improved learning processes and greater knowledge transfer (Pratiwi et al., 2026; Zhang et al., 2023). Furthermore, active participation in learning activities tends to support better learning outcomes and stronger competencies (Hamdan et al., 2023; Shakeel & Shaikh, 2025). In hospitality contexts, online learners have demonstrated competency levels that meet industry requirements, particularly in operational and communication skills (Sincharoenkul & Witthayasirikul, 2022).

Employee competence has consistently been identified as a critical determinant of service quality. Competent employees are more capable of delivering responsive, reliable, and professional services that meet customer expectations. Previous studies have found significant positive relationships between employee competence and service quality in both public service and hospitality settings (Sitorus et al., 2024; Saputra & Juniarta, 2022). Within hotel organisations, employee competence has been shown to improve customer service performance and guest satisfaction (Sitanggang et al., 2026; Gultom et al., 2025). These

findings indicate that competency development remains essential for achieving service excellence in the hospitality industry.

Although previous studies generally support the relationships among training effectiveness, competence, and service outcomes, several research gaps remain. First, existing studies have primarily focused on training effectiveness and employee performance, while limited attention has been given to the role of learning engagement within hospitality organisations. Second, empirical studies investigating hospitality-specific digital training platforms remain scarce, particularly those examining Typsy. Third, research investigating the relationships among training effectiveness, learning engagement, employee competence, and service quality within four-star hotels is still limited.

These issues are particularly relevant in the context of Swiss-Belhotel Bogor. From a business perspective, the hotel demonstrates strong organisational performance, achieving an annual occupancy rate of approximately 75% and generating annual revenues of around IDR 50 billion. These indicators suggest stable market demand and effective business operations. However, internal employee performance evaluations reveal that employee performance has not yet reached an optimal level.

Based on the hotel's Key Performance Indicator (KPI) assessment, only 30% of employees achieved the "Very Good" category, while 55% were categorised as "Good" and 15% remained in the "Fairly Good" category. These findings indicate that a substantial proportion of employees have not yet achieved superior performance levels. Such conditions raise questions regarding whether the existing digital training programmes have effectively improved employee competence and service capabilities.

Swiss-Belhotel Bogor has implemented Typsy as its digital hospitality training platform. However, empirical evidence regarding whether employees perceive the platform as effective and whether such perceptions contribute to higher learning engagement, improved competence, and better service quality remains unavailable. Consequently, further investigation is necessary to understand the effectiveness of digital training implementation within this organizational context.

Therefore, this study aims to examine the relationships between perceived effectiveness of Typsy-based training, learning engagement, employee competence, and service quality among employees of Swiss-Belhotel Bogor. Specifically, the study investigates whether perceived training effectiveness influences learning engagement, whether learning engagement contributes to employee competence, whether employee competence affects service quality, and whether perceived training effectiveness directly influences employee competence. The findings are expected to contribute to the literature on digital hospitality training by providing empirical evidence regarding the effectiveness of hospitality-specific online learning platforms. From a practical perspective, the study may offer managerial implications for hotel organizations seeking to optimize digital training programmed in order to improve employee competence and service quality.

METHOD

Research Design and Data Collection

This research employed a quantitative explanatory approach using a cross-sectional survey design. Quantitative research enables researchers to test theoretical relationships among

variables through statistical analysis and objective measurement (Creswell, 2018). The explanatory approach was adopted to examine the causal relationships between perceived effectiveness of Typsy-based training, learning engagement, employee competence, and service quality.

The study was conducted at Swiss-Belhotel Bogor between February and April 2026. The hotel was selected because it has implemented Typsy as a digital hospitality learning platform for employee development. The adoption of Typsy provides an appropriate organisational context for investigating the effectiveness of digital training within the hotel industry.

Primary data were collected through self-administered questionnaires distributed to employees who had participated in Typsy training programmes. Secondary data were obtained from human resource reports, hotel performance documents, and previous academic studies related to digital learning, employee competence, and service quality.

All questionnaire items were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree (Likert, 1932). The instrument was designed to capture employees' perceptions regarding the effectiveness of Typsy, their engagement in learning activities, their competence development, and their perceived service quality.

Population, Sample, and Measurement

The population consisted of all employees of Swiss-Belhotel Bogor who had access to and participated in Typsy-based training programmes. The total population comprised 100 employees across several hotel departments. The minimum sample size was calculated using the Slovin formula with a 5% margin of error:

$$n = \frac{100}{1 + 100(0.05)^2}$$

$$n = \frac{100}{1 + 0.25} = \frac{100}{1.25} = 80$$

Accordingly, the minimum required sample was 80 respondents. However, this study employed a census approach by distributing questionnaires to all 100 employees, thereby improving statistical power and reducing sampling error. The sample size also satisfies the requirements for Partial Least Squares Structural Equation Modelling (PLS-SEM), which is appropriate for small to medium samples.

Proportionate stratified sampling was applied to ensure representation across hotel departments. The measurement model comprised four latent variables. Perceived effectiveness of Typsy-based training was measured through content relevance, microlearning effectiveness, multimodal learning, practical application, usability, and flexibility. Learning engagement included behavioural, emotional, and cognitive engagement dimensions. Employee competence was measured through knowledge, skills, confidence, and problem-solving abilities. Service quality was assessed through responsiveness, reliability, assurance, empathy, and interaction quality.

The measurement indicators were adapted from previous studies, including Noe (2020), Armstrong (2021), Fredricks et al. (2004), Saks (2006), Spencer and Spencer (1993), Parasuraman et al. (1988), and Karatepe (2013).

Data Analysis

Data analysis was performed using SmartPLS 4 employing Partial Least Squares Structural Equation Modelling (PLS-SEM). PLS-SEM was selected because it is suitable for prediction-oriented studies, relatively small sample sizes, and complex relationships among latent variables (Hair et al., 2022).

The analysis consisted of two stages: evaluation of the measurement model and evaluation of the structural model.

The measurement model was assessed through convergent validity, discriminant validity, and reliability tests. Convergent validity was evaluated using outer loading values greater than 0.70 and Average Variance Extracted (AVE) values exceeding 0.50. Discriminant validity was examined using the Heterotrait–Monotrait ratio (HTMT), with acceptable values below 0.90. Reliability was assessed using Cronbach’s alpha and Composite Reliability values above 0.70.

The structural model was evaluated through path coefficients, coefficients of determination (R^2), and bootstrapping procedures. Path coefficients indicate the direction and magnitude of relationships among constructs. Hypothesis testing was conducted using a bootstrapping procedure with 5,000 resamples. Relationships were considered significant when the t-statistic exceeded 1.96 and the p-value was below 0.05.

The coefficient of determination (R^2) was used to assess the explanatory power of endogenous constructs. R^2 values of 0.75, 0.50, and 0.25 indicate substantial, moderate, and weak explanatory power, respectively (Hair et al., 2022).

RESULT AND DISCUSSION

Respondent Profile and Descriptive Statistics

A total of 100 employees of Swiss-Belhotel Bogor participated in this study. The respondents consisted predominantly of male employees (71%), while female employees represented 29% of the sample. In terms of age, most respondents were between 25 and 30 years old (46%), followed by employees below 25 years old (30%), employees aged 31–40 years (20%), and employees above 40 years old (4%). These findings indicate that the workforce is dominated by relatively young employees who are generally more familiar with digital technology and online learning platforms.

Regarding departmental distribution, housekeeping employees represented the largest proportion (32%), followed by food and beverage employees (30%), administration staff (20%), front office employees (10%), and engineering personnel (8%). The majority of respondents had worked between one and three years (48%), indicating that most employees were still within the early stages of organisational socialisation and competency development.

Table 1. Respondent Perception Summary

Variable	Item	Sum of Scores	Mean	Remarks
Perceived Effectiveness of Typsy-Based Training	PE.1	371	3.71	
	PE.2	368	3.68	
	PE.3	380	3.80	Highest Score
	PE.4	376	3.76	
	PE.5	365	3.65	Lowest Score
	PE.6	371	3.71	

Learning Engagement	Total	2231	22.31	
	Average	371.83	3.72	
	Minimum	365.00	3.65	
	Maximum	380.00	3.80	
	LE.1	390	3.90	Lowest Score
	LE.2	395	3.95	
	LE.3	397	3.97	Highest Score
	LE.4	390	3.90	Lowest Score
	Total	1572	15.72	
	Average	393.00	3.93	
Employee Competence	Minimum	390.00	3.90	
	Maximum	397.00	3.97	
	EC.1	388	3.88	
	EC.2	389	3.89	Highest Score
	EC.3	381	3.81	
	EC.4	372	3.72	Lowest Score
	Total	1530	15.30	
	Average	382.50	3.83	
	Minimum	372.00	3.72	
	Maximum	389.00	3.89	
Service Quality	SC.1	395	3.95	Highest Score
	SC.2	389	3.89	
	SC.3	394	3.94	
	SC.4	380	3.80	Lowest Score
	SC.5	390	3.90	
	Total	1948	19.48	
	Average	389.60	3.90	
	Minimum	380.00	3.80	
	Maximum	395.00	3.95	

Source: Analysis data, 2026

The perceived effectiveness of Typsy-based training obtained an overall mean score of 3.72, indicating that employees generally perceived the platform positively. The highest score was found in the multimedia learning indicator (PE3; mean = 3.80), suggesting that the combination of videos, audio, and text supports learning effectiveness. Conversely, the usability indicator (PE5; mean = 3.65) obtained the lowest score, indicating opportunities to improve platform accessibility and user experience.

Learning engagement achieved the highest average among the predictor variables (mean = 3.93). Employees demonstrated strong cognitive involvement, particularly in understanding training materials in depth (LE3; mean = 3.97). This finding suggests that Typsy encourages active learning participation among hotel employees.

Employee competence showed an average score of 3.83. The highest score was found in skill improvement (EC2; mean = 3.89), while problem-solving capability (EC4; mean = 3.72) received the lowest score. Finally, service quality recorded an average score of 3.90, with responsiveness (SQ1; mean = 3.95) representing the strongest aspect of service delivery. Overall, these descriptive findings indicate that employees perceive Typsy positively and report relatively high levels of engagement, competence, and service quality.

Measurement Model (Outer Model) Evaluation

Evaluation of the measurement model was conducted to assess convergent validity and the reliability of the constructs prior to testing the structural relationships. The results of outer loadings indicate that all indicators across the four latent variables—Digital Training, Learning Engagement, Employee Competence, and Service Quality—exceed the recommended threshold of 0.70. Specifically, most indicators demonstrate strong loadings ranging approximately between 0.80 and 0.90, indicating a high level of indicator reliability.

Table 2. Outer Loadings of Variables and Indicators

Variable	Indicator	Outer Loading
Learning Engagement	LE.1	0.904
	LE.2	0.882
	LE.3	0.872
	LE.4	0.895
Employee Competence	EC.1	0.893
	EC.2	0.893
	EC.3	0.868
	EC.4	0.810
Service Quality	SC.1	0.869
	SC.2	0.897
	SC.3	0.873
	SC.4	0.841
	SC.5	0.902
Perceived Effectiveness of Typsy-Based Training	PE.1	0.905
	PE.2	0.886
	PE.3	0.894
	PE.4	0.885
	PE.5	0.855
	PE.6	0.846

Source: Analysis data, 2026

For the construct Digital Training, all reflective indicators (PE items) show robust loadings above 0.80, with several approaching or exceeding 0.90, suggesting strong consistency in capturing the underlying construct. Similarly, Learning Engagement (LE items) demonstrates satisfactory convergent validity, with loadings consistently above 0.80. The constructs Employee Competence (EC items) and Service Quality (SC items) also exhibit strong indicator reliability, confirming that the observed variables are appropriate representations of their respective latent constructs.

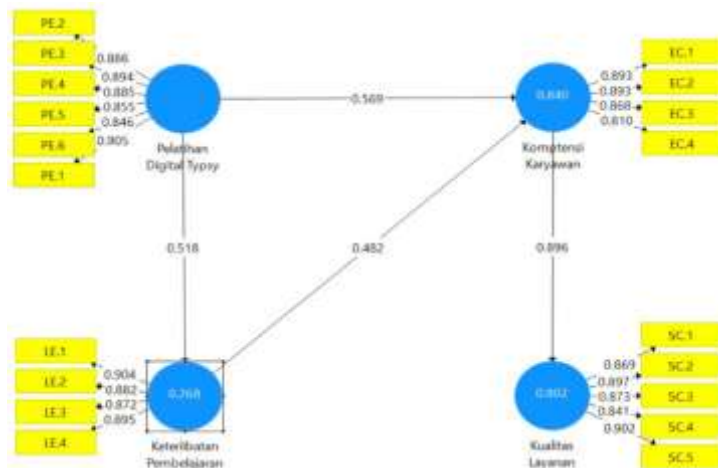


Figure 1. Outer Model

Source: Author's data processing (2026) using SmartPLS 4

From a methodological standpoint, these findings confirm that the measurement model meets established criteria for convergent validity. High outer loadings suggest that each indicator shares a substantial proportion of variance with its respective latent construct, thereby minimising measurement error. Consequently, the measurement model is considered reliable and valid for subsequent structural model analysis.

Structural Model and Hypothesis Results

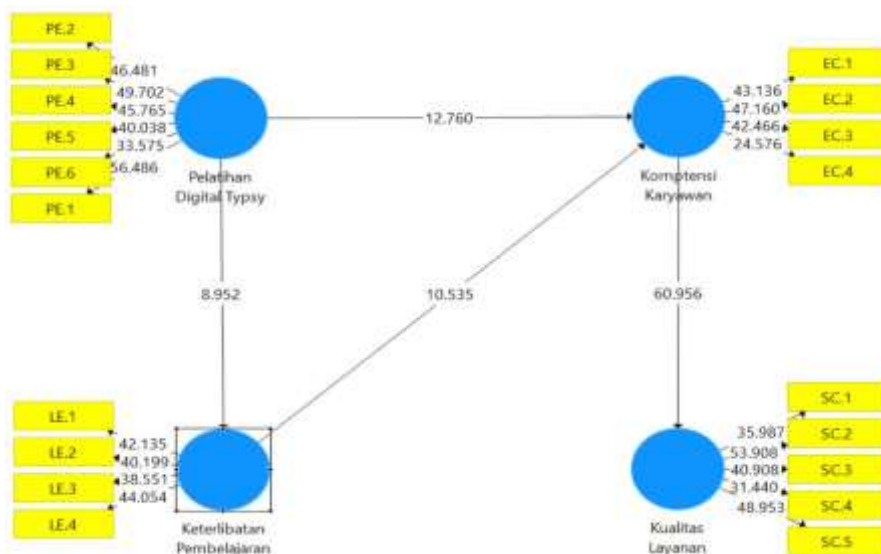


Figure 2. Inner Model

Source: Author's data processing (2026) using SmartPLS 4

Figure 2 presents the structural model and the hypothesised relationships among the constructs. The structural model was assessed to examine the proposed relationships among Perceived Effectiveness of Typsy-Based Training, Learning Engagement, Employee Competence, and Service Quality. The results indicate that all hypothesised relationships are positive and statistically significant, confirming the explanatory capability of the proposed research model.

Table 3. Validity and Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Learning Engagement	0.911	0.937	0.789
Employee Competence	0.889	0.923	0.751
Service Quality	0.925	0.943	0.769
Perceived Effectiveness of Typsy-Based Training	0.941	0.953	0.772

Source: Analysis data, 2026

The measurement model demonstrated satisfactory reliability and convergent validity. As presented in Table 3, all constructs exceeded the recommended thresholds for Cronbach's Alpha and Composite Reliability (> 0.70), indicating strong internal consistency. Furthermore, all Average Variance Extracted (AVE) values exceeded 0.50, confirming adequate convergent validity. These findings suggest that the indicators reliably represent their respective latent constructs and provide a robust basis for structural model assessment.

The first relationship indicates that Perceived Effectiveness of Typsy-Based Training significantly influences Learning Engagement ($\beta = 0.518$; $t = 8.952$). This finding suggests that employees who perceive Typsy as relevant, accessible, and useful are more likely to participate actively in learning activities. The result supports Technology Acceptance Theory (Davis, 1989), which proposes that perceived usefulness and ease of use encourage greater engagement with digital technologies. The finding also aligns with previous studies reporting that effective online learning platforms enhance learner engagement through interactive and flexible learning environments (Shakeel & Shaikh, 2025; Xu et al., 2024).

The structural results further reveal that Learning Engagement significantly influences Employee Competence ($\beta = 0.482$; $t = 10.535$). This finding indicates that employees who demonstrate higher levels of participation and involvement in learning activities tend to acquire greater knowledge and skills. The result supports Social Learning Theory (Bandura, 1986), which emphasises that active involvement in learning processes facilitates behavioural and cognitive development. Previous studies similarly found that engaged learners achieve superior learning outcomes and professional skill development (Hamdan et al., 2023; Gupta et al., 2024).

Furthermore, Perceived Effectiveness of Typsy-Based Training exerts a strong direct effect on Employee Competence ($\beta = 0.551$; $t = 12.760$). This finding suggests that the benefits of digital training are not limited to increasing participation but also directly contribute to competency development. According to Human Capital Theory (Becker, 1993), organisational investments in employee learning improve knowledge, capabilities, and productivity. In hospitality settings, effective online training has been shown to enhance employee skills, productivity, and job performance (Rabbo & Abdel-Aleem, 2022; Djaswandini et al., 2025).

The strongest relationship in the model was observed between Employee Competence and Service Quality ($\beta = 0.896$; $t = 60.956$). This finding demonstrates that employee competence is the principal determinant of service quality within Swiss-Belhotel Bogor. Employees possessing stronger operational knowledge, confidence, and problem-solving abilities are more capable of delivering responsive, reliable, and empathetic services. This result is consistent with Competency Theory (Spencer & Spencer, 1993) and the Service-Profit

Chain framework (Heskett et al., 1994), both of which emphasise the critical role of employee capability in achieving superior service outcomes. Similar findings have been reported in hospitality studies by Sitanggang et al. (2026), Gultom et al. (2025), and Wu et al. (2015).

Table 4. Coefficient of Determination (R²) Test Results

Variable	R Square	Adjusted R Square
Learning Engagement	0.268	0.260
Employee Competence	0.840	0.836
Service Quality	0.802	0.800

Source: Analysis data, 2026

The coefficient of determination further demonstrates the predictive capability of the model. The R² value for Learning Engagement (0.268) indicates that the perceived effectiveness of Typsy explains approximately 26.8% of employee engagement. Although this value may be considered moderate, it suggests that engagement is also influenced by additional factors such as organisational culture, managerial support, and employee motivation. This finding is consistent with Hashem et al. (2022), who reported that organisational support conditions may strengthen or weaken online learning engagement.

Meanwhile, Employee Competence achieved an R² value of 0.840, indicating substantial explanatory power. The combination of training effectiveness and learning engagement explains 84% of the variance in employee competence. Similarly, Service Quality obtained an R² value of 0.802, suggesting that employee competence explains more than 80% of service quality variance. According to Hair et al. (2022), these values indicate strong predictive accuracy and substantial explanatory capability.

From a managerial perspective, these findings suggest that Typsy should be viewed not merely as an online training platform but as a strategic human resource development instrument. The platform contributes to employee engagement, competency development, and ultimately service quality improvement. Nevertheless, the relatively modest R² value for Learning Engagement indicates that digital learning effectiveness alone may not fully guarantee employee participation. Additional organisational interventions, including supervisory support, coaching, and learning culture development, may be necessary to maximise engagement outcomes.

Overall, the structural model confirms that effective digital hospitality training contributes directly and indirectly to service quality through its influence on employee engagement and competence. These findings provide empirical evidence supporting the strategic role of digital learning platforms in hospitality human resource development.

Table 5. Hypothesis Testing Results

Hypothesis	Structural Path	β	t-value	p-value	Decision
H1	Perceived Effectiveness → Learning Engagement	0.518	8.952	0.000	Supported
H2	Learning Engagement → Employee Competence	0.482	10.535	0.000	Supported
H3	Employee Competence → Service Quality	0.896	60.956	0.000	Supported

H4	Perceived Effectiveness → Employee Competence	0.551	12.760	0.000	Supported
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Source: Analysis data, 2026

The discussion section interprets the empirical findings in relation to the proposed hypotheses, relevant theoretical perspectives, and previous studies in hospitality and digital learning contexts. The findings generally support the hypothesised relationships and provide evidence regarding the role of digital training effectiveness, learning engagement, employee competence, and service quality within hotel organisations.

The Effect of Perceived Effectiveness of Typsy-Based Training on Learning Engagement

The findings demonstrate that the perceived effectiveness of Typsy-based training significantly influences employees' learning engagement. The statistical results indicate that Perceived Effectiveness of Typsy positively affects Learning Engagement ($\beta = 0.518$, $t = 8.952$, $p < 0.001$), while the coefficient of determination ($R^2 = 0.268$) indicates that digital training effectiveness explains 26.8% of the variance in employee engagement.

This finding suggests that employees who perceive Typsy as relevant, accessible, flexible, and useful are more likely to participate actively in learning activities. The multimedia characteristics of Typsy, including short instructional videos, visual demonstrations, and practical hospitality content, appear to encourage stronger cognitive and behavioural involvement in learning.

From the perspective of Technology Acceptance Theory (Davis, 1989), employees who perceive digital learning platforms as useful and easy to use tend to demonstrate higher engagement levels. Similarly, Self-Determination Theory argues that autonomy and perceived competence encourage individuals to become actively involved in learning activities (Deci & Ryan, 2000).

The result supports previous studies indicating that effective online learning platforms increase learner engagement through content relevance, accessibility, and interactive learning experiences (Shakeel & Shaikh, 2025; Wavre & Kuknor, 2023). Studies in hospitality contexts have also reported that training opportunities and supportive learning environments contribute positively to employee engagement (Xu et al., 2024).

The relatively moderate explanatory power suggests that digital training effectiveness alone may not fully explain employee engagement within hotel organisations. Other factors such as supervisory support, organisational learning culture, leadership practices, peer interaction, and intrinsic motivation may also contribute to employee engagement. This finding indicates that successful digital learning implementation requires not only effective technology but also a supportive organisational environment.

From a managerial perspective, the findings indicate that Typsy should not merely function as a mandatory training system but as a learning environment that encourages active participation, continuous learning, and employee involvement.

The Effect of Learning Engagement on Employee Competence

The findings further reveal that Learning Engagement significantly influences Employee Competence ($\beta = 0.482$, $t = 10.535$, $p < 0.001$). Employees who actively participate in digital

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learning activities tend to report higher levels of knowledge, skills, confidence, and problem-solving abilities.

This finding can be explained through Social Learning Theory (Bandura, 1986), which argues that learning occurs through active observation, participation, and interaction with learning materials. Employees who engage cognitively, emotionally, and behaviourally during training are more likely to internalise knowledge and translate learning experiences into workplace competencies.

The result is consistent with Human Capital Theory (Becker, 1993), which suggests that investments in learning activities improve employees' knowledge and skills, thereby increasing organisational capability.

This relationship may occur because engaged employees devote greater cognitive effort, attention, and emotional involvement during learning activities. Active participation allows employees to absorb knowledge more effectively, retain information for longer periods, and apply newly acquired skills in workplace situations. Consequently, engagement functions as an important psychological mechanism that transforms learning experiences into professional competence.

Previous studies have similarly demonstrated that engaged learners achieve superior learning outcomes. Hamdan et al. (2023) found that active participation in online learning improves knowledge acquisition and skill development. Gupta et al. (2024) reported that e-learning engagement positively affects professional skill development among hospitality employees. Likewise, Shakeel and Shaikh (2025) concluded that engaged online learners experience better organisational and human resource development outcomes.

Within the context of Swiss-Belhotel Bogor, employees who actively complete Typsy modules, understand the content, and apply the learning materials in their daily work tend to develop stronger competencies. This is particularly important because the descriptive findings showed that problem-solving competence received the lowest mean score among the competency indicators.

Therefore, increasing employee engagement during digital learning may represent an effective strategy for strengthening workforce competence within hotel organisations.

The Effect of Employee Competence on Service Quality

The results reveal that Employee Competence significantly influences Service Quality ($\beta = 0.896$, $t = 60.956$, $p < 0.001$). This represents the strongest relationship in the structural model, indicating that employee competence appears to be one of the strongest determinants of service quality among Swiss-Belhotel Bogor employees.

This finding strongly supports the Service-Profit Chain framework (Heskett et al., 1994), which argues that employee capability and internal service quality contribute directly to superior customer service outcomes. Employees possessing stronger knowledge, operational skills, confidence, and problem-solving abilities are more capable of delivering reliable and responsive services.

The findings are also consistent with Competency Theory proposed by Spencer and Spencer (1993), which emphasises that employee competencies determine effective job performance. In service organisations, competencies directly affect employees' ability to meet customer expectations and provide high-quality service experiences.

Previous hospitality studies provide strong empirical support for this relationship. Sitanggang et al. (2026) found that employee competence significantly improves service quality in hotel operations. Similarly, Gultom et al. (2025) reported that employee performance quality positively influences guest service satisfaction. Wu et al. (2015) further demonstrated that frontline employee service competence contributes significantly to customers' perceptions of service quality.

The exceptionally high t-value also indicates that competence plays a dominant role in service delivery within hospitality settings, where employee–guest interactions largely determine customer experiences. This finding reinforces the strategic importance of competency development programmes in labour-intensive service industries.

The substantial explanatory power of the model ($R^2 = 0.802$) indicates that employee competence explains approximately 80.2% of service quality variance. This suggests that competence development represents one of the most critical managerial priorities for hotel organisations.

For Swiss-Belhotel Bogor, improving employee competence through digital learning may contribute directly to better responsiveness, reliability, assurance, empathy, and interaction quality during guest encounters.

The Effect of Perceived Effectiveness of Typsy-Based Training on Employee Competence

The findings also demonstrate a significant direct effect of Perceived Effectiveness of Typsy-Based Training on Employee Competence ($\beta = 0.551$, $t = 12.760$, $p < 0.001$). This result indicates that employees who perceive Typsy as relevant, useful, and practical tend to report higher levels of competence.

This relationship can be explained through Training Transfer Theory, which suggests that effective training programmes facilitate the application of acquired knowledge and skills to workplace situations (Baldwin & Ford, 1988). When training materials are perceived as relevant and applicable, employees are more likely to transfer learning outcomes into job performance.

The direct influence observed in this study suggests that employees may acquire competencies not only through engagement processes but also through the immediate applicability of training materials. Practical hospitality scenarios, operational demonstrations, and job-relevant content provided by Typsy may facilitate knowledge transfer even among employees with varying levels of learning engagement.

Human Capital Theory also supports this finding by arguing that investments in employee training enhance knowledge, skills, and organisational capability (Becker, 1993). Digital learning platforms therefore represent strategic organisational investments rather than merely training technologies.

The result aligns with previous hospitality studies. Rabbo and Abdel-Aleem (2022) reported that online training programmes improve employee productivity, skills, and job performance in five-star hotels. Djaswandini et al. (2025) similarly found that training effectiveness positively affects employee performance in four-star hotels. Sincharoenkul and Witthayasirikul (2022) further demonstrated that online hospitality learning contributes to the development of operational and communication competencies.

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The descriptive findings support these results. Employees gave relatively high evaluations to the multimedia learning aspects of Typsy, particularly the integration of video, audio, and textual content. Such learning formats appear to facilitate knowledge acquisition and skill development.

From a managerial perspective, Typsy should be viewed as a strategic human resource development tool rather than merely an online training platform. Continuous utilisation of the platform, combined with managerial support and practical learning activities, may help improve employee competencies and ultimately strengthen service quality within the hotel.

CONCLUSION

This study examined the relationships between the perceived effectiveness of Typsy-based training, learning engagement, employee competence, and service quality at Swiss-Belhotel Bogor. The findings show that digital hospitality training plays an important role in improving employee development and service performance. First, perceived effectiveness of Typsy-based training positively influences learning engagement. Employees who find the platform accessible, relevant, practical, and easy to use are more likely to actively participate in learning activities. Second, learning engagement significantly improves employee competence. Employees who are involved in training develop better knowledge, skills, confidence, and problem-solving abilities. Third, employee competence has the strongest impact on service quality. Employees with higher competence are better able to provide responsive, reliable, professional, and empathetic services to guests. Fourth, effective Typsy-based training directly improves employee competence by providing practical and job-related knowledge that can be applied in daily operations. The study contributes to digital learning and hospitality human resource development literature by showing that training effectiveness, learning engagement, and employee competence are interconnected factors in improving service quality. From a managerial perspective, digital platforms such as Typsy should be considered strategic tools for developing employee capabilities rather than merely training systems. Hotels should encourage employee participation through managerial support, learning incentives, and opportunities to apply training outcomes. Attention should also be given to improving problem-solving skills and employees' understanding of guest needs through practical exercises, coaching, and department-based learning activities. However, this study is limited to one four-star hotel and uses a cross-sectional design, which limits the generalizability of the findings and the observation of long-term changes. Future studies should involve different hotel categories, locations, and longitudinal approaches while examining additional factors such as organizational learning culture, leadership support, digital readiness, and employee motivation. Overall, the findings confirm that effective digital training platforms can strengthen employee competence and ultimately enhance service quality in the hospitality industry.

REFERENCE

- Akpen, C., Asaolu, S., Atobatele, S., Okagbue, H., & Sampson, S. (2024). Impact of online learning on student's performance and engagement: A systematic review. *Discover Education*, 3(1), 1–18. <https://doi.org/10.1007/s44217-024-00253-0>
- Armstrong, M. (2021). *Armstrong's handbook of human resource management practice* (15th ed.). Kogan Page.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

- Djaswandini, S. N., Goeltom, V., & Brian, R. (2025). Evaluasi efektivitas pelatihan dan perilaku inovatif terhadap kinerja karyawan di hotel berbintang 4 di Jakarta Timur. *Jurnal EMT KITA*, 9(4), 545–556. <https://doi.org/10.35870/emt.v9i4.4680>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Gultom, B., Situmorang, S. S. O., & Silalahi, V. A. I. (2025). The influence of employee performance quality on guest service at Swiss-Belhotel Harbour Bay Hotel Batam. *Tourism, Hospitality and Culture Insights Journal*, 5(1), 23–34. <https://doi.org/10.36983/thcij.v5i1.824>
- Gupta, D., Verma, D. S. M., & Kumar, A. (2024). Impact of e-learning practices on work performance and skill development of hospitality professionals: An empirical study. *International Journal of Environmental Sciences*. <https://doi.org/10.64252/r98fv437>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
- Hamdan, F., Nordin, N., Khalid, F., Norman, H., Zaini, H., & Ibrahim, R. (2023). Assessing active participation in evaluation phase of ADDIE model in massive open online courses. *International Journal of Academic Research in Business and Social Sciences*, 13(12), 1508–1521. <https://doi.org/10.6007/IJARBSS/v13-i12/20241>
- Hashem, M., Sfeir, E., Hejase, H., & Hejase, A. (2022). Effect of online training on employee engagement during the COVID-19 era. *Asian Business Research*, 7(5), 31–45. <https://doi.org/10.20849/abr.v7i5.1294>
- Karatepe, O. M. (2013). High-performance work practices and hotel employee performance: The mediation of work engagement. *International Journal of Hospitality Management*, 32, 132–140. <https://doi.org/10.1016/j.ijhm.2012.05.003>
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 140, 1–55.
- Noe, R. A. (2020). *Employee training and development* (8th ed.). McGraw-Hill.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Pratiwi, E., Karunia, E., Shalahuddin, S., & Banding, M. P. (2026). The role of online training effectiveness on ASN competency through learning motivation. *Jurnal Economic Resource*, 9(1), 45–58. <https://doi.org/10.57178/jer.v9i1.2339>
- Rabbo, A. A. A., & Abdel-Aleem, M. (2022). The consequences of online training programs in five-star hotels. *International Journal of Heritage, Tourism and Hospitality*, 16(1), 1–17. <https://doi.org/10.21608/IJHTH.2022.309525>
- Rathnasekara, K., Yatigammana, K., & Suraweera, N. (2025). Optimizing workforce competency through strategic e-learning: A framework for organizational empowerment. *Strategic HR Review*, 24(1), 15–22. <https://doi.org/10.1108/SHR-12-2024-0096>
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600–619. <https://doi.org/10.1108/02683940610690169>
- Saputra, K. W. A., & Juniarta, P. P. (2022). Pengaruh kompetensi karyawan terhadap kualitas pelayanan departemen front office di Hotel Puri Saron Seminyak. *SABANA: Jurnal*

- Sosiologi, Antropologi, dan Budaya Nusantara, 1(3), 95–103. <https://doi.org/10.55123/sabana.v1i3.1694>
- Shakeel, M., & Shaikh, O. A. (2025). The evaluation of online learning platforms in enhancing human resource development: Effectiveness, engagement and organizational impact. *Research Journal for Social Affairs*, 6(6), 101–118.
- Silva, A. J., & Almeida, N. (2023). Can engagement and performance be improved through online training on emotional intelligence? A quasi-experimental approach. *International Journal of Educational Management*, 37(5), 1040–1056. <https://doi.org/10.1108/IJEM-03-2022-0092>
- Sincharoenkul, K., & Witthayasirikul, C. (2022). Can online learners obtain sufficient competencies in the hospitality and tourism industries? *Frontiers in Education*, 7, Article 996377. <https://doi.org/10.3389/educ.2022.996377>
- Sitanggang, T., Siregar, E., & Legowo, P. S. (2026). Analisis pengaruh kompetensi karyawan dan disiplin kerja terhadap kualitas pelayanan karyawan hotel XYZ Depok. *Fundamental Management Journal*, 11(1), 15–27. <https://doi.org/10.33541/fjm.v11i1.8026>
- Sitorus, D. R. H., Agustian, D., & Anggraini, T. (2024). Kompetensi pegawai dalam meningkatkan kualitas pelayanan. *Journal of Administration and Educational Management (ALIGNMENT)*, 7(1), 245–253. <https://doi.org/10.31539/alignment.v7i1.9901>
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. John Wiley & Sons.
- Wavre, S. P., & Kuknor, S. (2023). Enhancing effectiveness of online training program through assessment of participant engagement index. *Development and Learning in Organizations: An International Journal*, 37(6), 9–12. <https://doi.org/10.1108/DLO-01-2023-0031>
- Wu, Y.-C., Tsai, C., Hsiung, H., & Chen, K.-Y. (2015). Linkage between frontline employee service competence scale and customer perceptions of service quality. *Journal of Services Marketing*, 29(3), 224–234. <https://doi.org/10.1108/JSM-02-2014-0058>
- Xu, S., Ashton, M., Li, Y., Staunton, G., & Li, Y. (2024). Hotel employee engagement during the pandemic: A mixed-method approach. *Cornell Hospitality Quarterly*, 67(1), 129–145. <https://doi.org/10.1177/19389655241276511>
- Zhang, X., Wu, H., Huang, X., Wu, Q., & Wu, Y. (2023). How does online employee training enhance organizational growth? The benefits of integrating educational technology into workplace learning. *Industrial and Commercial Training*, 55(4), 435–450. <https://doi.org/10.1108/ICT-02-2023-0006>