The Factors Affecting Employee Commitment to Restaurants in Thanh Hoa City: Application of the PLS-SEM Model

Mai Anh Vu*[1], Nguyen Thi Truc Quynh[2], Le Thi Ngoc[3], Vu Thi Thuy[4]

[1,2,3,4]Thanh Hoa University of Culture, Sports, and Tourism

ABSTRACT :
The study focuses on analyzing the factors affecting employee commitment to restaurants in Thanh Hoa, based on the development and application of measurement scales suitable for the current situation and context. The research sample consists of 186 responses from customers who have experienced dining at restaurants in Thanh Hoa City, eligible for analysis using Smart PLS 4.0 statistical software and the PLS-SEM model. The results show that five factors influence employee commitment, in the following order of impact: (3) Salary, bonuses, and benefits; (5) Promotion opportunities; (4) Work environment; (2) Training and development; (1) Employee-manager relationships. The research model explained 62.6% of the phenomenon. Based on the research findings, the author points out some managerial implications and suggests directions for future research.

I. INTRODUCTION

In the context of a rapidly developing market economy and increasingly fierce competition, restaurants in Thanh Hoa City are constantly improving the quality of their services to meet the growing demands of customers. With a variety of business models and operational scales, each establishment can serve thousands of customers during peak times. To ensure effective service processes and maintain service quality, human resource management plays a pivotal role.

However, one of the significant challenges faced by restaurants is how to retain employees and enhance their engagement with the restaurant. Employee engagement not only affects the quality of service but also determines the sustainable development and competitiveness of the restaurant. Highly engaged employees tend to work more efficiently, remain loyal to the business, and are more likely to stay long-term, thereby reducing recruitment and training costs.

Understanding the factors that influence employee engagement is essential to develop effective human resource management strategies. These factors may include the working environment, compensation and benefits, career development opportunities, corporate culture, and recognition from management. Researching and evaluating these factors will provide a comprehensive and in-depth view, which can lead to specific solutions aimed at improving employee engagement, enhancing service quality, and strengthening the competitiveness of restaurants in Thanh Hoa City.

In this research, the team will focus on studying the theoretical basis of factors affecting employee engagement with restaurants. The team will propose a research model and conduct research in restaurants in Thanh Hoa City. From there, the study will suggest some implications for management and directions for further research.

II. RESEARCH METHODS

2.1. Data Collection Method

Based on the proposed factors influencing restaurant choice intention, the research model includes: (1) Relationship between employees and management; (2) Training and development; (3) Salary, bonuses, and benefits; (4) Work environment; (5) Career advancement opportunities; and these factors influence the dependent variable (6) "Employee engagement with the restaurant" (EE). A survey questionnaire is constructed using a Likert 5-point scale: 1. Strongly disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly agree. After developing the survey, the research team conducts in-depth interviews with 6 restaurant owners or managers with extensive experience in the restaurant sector, currently working in restaurants in Thanh Hoa City. The survey is refined based

on feedback from the interviewees, and the research team conducts a pilot survey with 10 randomly selected people. The results show that participants agree with the factors included in the survey, and based on this, the research team conducts a wide survey via Google Forms.

The data collection method is based on the study by Hock & Ringle (2006), which provides guidance on the expected sample size. According to this, the minimum sample size should be five times the number of observed variables. This is an appropriate sample size for studies using Comrey factor analysis (1973): N=5*m, where m is the number of questions in the survey. Therefore, the research team will collect at least N = 526 = 130 survey responses.*

2.2. Data Analysis Method

The Smart PLS 4.0 software and PLS-SEM linear model will be used to test the hypotheses and assess the impact of the factors. To evaluate the quality of observed variables in the measurement model, the authors will consider the outer loadings, reliability of the scale (Cronbach's Alpha), convergence validity, and discriminant validity. The impact will be assessed through structural model analysis, examining the relationships, path coefficients, overall R^2, and effect size f^2.

III. RESEARCH RESULTS

### 3.1 Descriptive Statistics of the Survey Sample

The research team conducted a random survey of 200 employees at restaurants in Thanh Hóa City. The survey was conducted in March 2024. The content of the survey included 8 sections: 7 sections with 26 survey questions using a 5-point Likert scale, and 1 section with open-ended questions. A total of 186 valid responses were collected for analysis.

Regarding the age distribution, out of the 186 survey responses:

- **72 responses** (38.7%) were from employees aged **23 to 30**, representing the largest proportion.
- **67 responses** (36.0%) were from employees aged **18 to 22**, most of whom are **part-time workers**.
- The third largest group included employees aged **31 to 45**, with **38 responses**.
- Finally, **9 responses** were from employees aged **over 45**.

Working Age Distribution Among 186 Employees
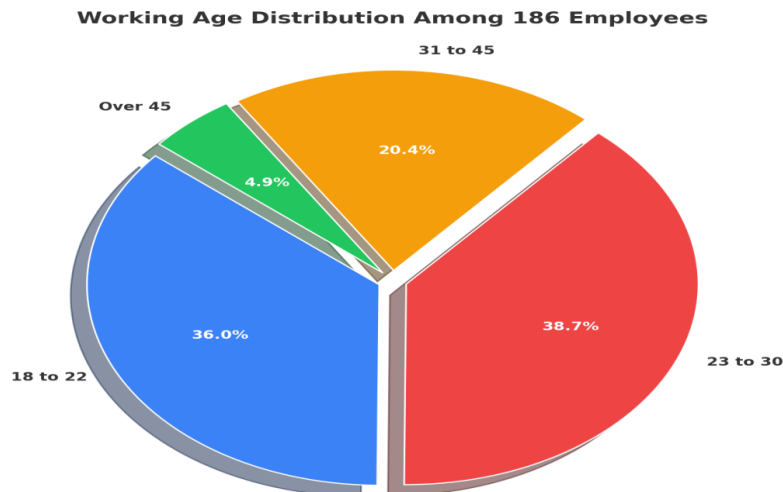
Out of the 186 employees surveyed, 41.9% held a university degree, with a total of 78 individuals, 36.6% had a high school education, totaling 68 individuals, and 21.5% had a vocational or college-level education. There were no employees with a postgraduate degree.

Educational Level Distribution Among 186 Employees
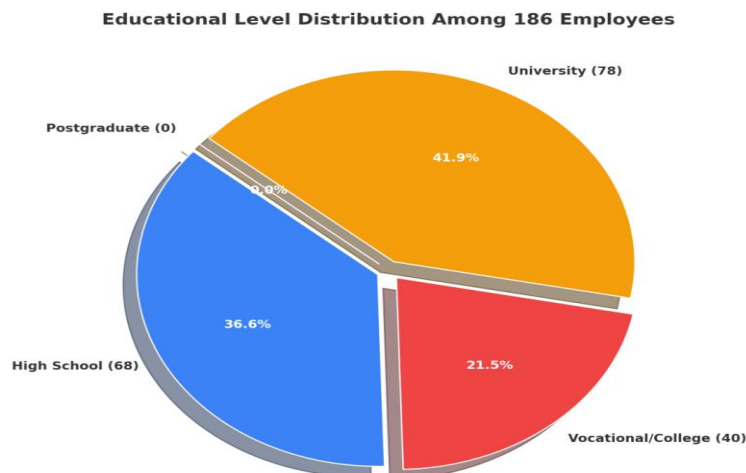
3.2 Reliability Test of the Measurement Scale

The reliability of the measurement scale for the factors affecting restaurant choice intention in Thanh Hoa City was assessed using PLS-SEM through two main indices: Cronbach's Alpha and Composite Reliability (CR).

Table 3. Cronbach's Alpha and Composite Reliability of the Factors Affecting Employee Engagement with Restaurants in Thanh Hoa City

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	Variance Inflation Factor (VIF)
Opportunities for advancement	0,853	0,856	0,895	0,630	1,928
Salary, bonuses, and benefits	0,855	0,861	0,896	0,634	1,467
Working environment	0,877	0,882	0,915	0,730	2,057
Relationship between employees and management	0,828	0,839	0,885	0,658	1,779
Employee engagement with the restaurant	0,764	0,778	0,864	0,680	
Training and development	0,833	0,841	0,888	0,665	1,539

(**Source:** Authors' group tested using Smart PLS)

According to Table 3, all the measurement scales meet the condition of > 0.7 (DeVellis, 2012) and do not violate any rules for removing variables. Therefore, no variables were excluded, and the scales can be considered reliable.

The Composite Reliability (CR) for all observed variables is also > 0.7 (Bagozzi & Yi, 1988). Thus, the measurement scales are reliable, meaningful for analysis, and can be used in subsequent factor analysis.

Variance Inflation Factor (VIF): This index indicates the likelihood of multicollinearity occurring in the model. A VIF index < 10 is generally acceptable; however, to ensure reliability, the VIF should not exceed 5 (Hair et al., 2011). From Table 3, it can be seen that the VIF values for all variables in the model are below 5.

Average Variance Extracted (AVE): The AVE values for all variables are > 0.5 (Hock & Ringle, 2010), which indicates that the model satisfies the conditions for convergence validity.

3.3 Discriminant Validity

The results of the test in Table 5 show the HTMT index for discriminant validity between the factors affecting employee engagement with restaurants in Thanh Hoa City. According to Henseler et al. (2015), if this value is below 0.9, the discriminant validity is ensured. The HTMT values in Table 4 demonstrate the discriminant validity of all the factors included in the model.

Table 4. HTMT Index for the Research Model on Factors Affecting Employee Engagement with Restaurants in Thanh Hoa City

	Opportunities for advancement	Salary, bonuses, and benefits	Working environment	Relationship between employees and management	Employee engagement with the restaurant	Training and development
Opportunities for advancement						
Salary, bonuses, and benefits	0,480					
Working environment	0,728	0,551				
Relationship between employees and management	0,669	0,508	0,633			
Employee engagement with the restaurant	0,774	0,748	0,788	0,751		
Training and development	0,524	0,545	0,589	0,542	0,712	

(**Source:** Authors' group tested using Smart PLS)

3.4. f2 Effect Size

The f2 effect size indicates the extent of influence of a construct (factor) when removed from the model. f2 values of 0.02, 0.15, and 0.35 correspond to small, medium, and large effects (Cohen, 1988) of the exogenous variable. If the effect size < 0.02, it is considered negligible.

In this model, from Table 5, we can see that all links have an effect on employee engagement with restaurants in Thanh Hóa city, as all f2 values are greater than 0.02.

Table 5. Summary of f2 Effect Size Values

|	Opportunities for advancement	Salary, bonuses, and benefits	Working environment	Relationship between employees and management	Employee engagement with the restaurant	Training and development
Opportunities for advancement					0,061	
Salary, bonuses, and benefits					0,142	
Working environment					0,055	
Relationship between employees and management					0,046	
Employee engagement with the restaurant						
Training and development					0,054	

(**Source:** Authors' group tested using Smart PLS)

3.5. Assessment of the Impact Level Using Structural Equation Modeling

3.5.1. Evaluation of the Impact Relationships

Regarding the relationships and the degree of influence of the factors affecting employee engagement with restaurants in Thanh Hóa city, as assessed using SMARTPLS, this is shown in Figure 2.

Figure 2. Factors Affecting Employee Engagement with Restaurants in Thanh Hóa City
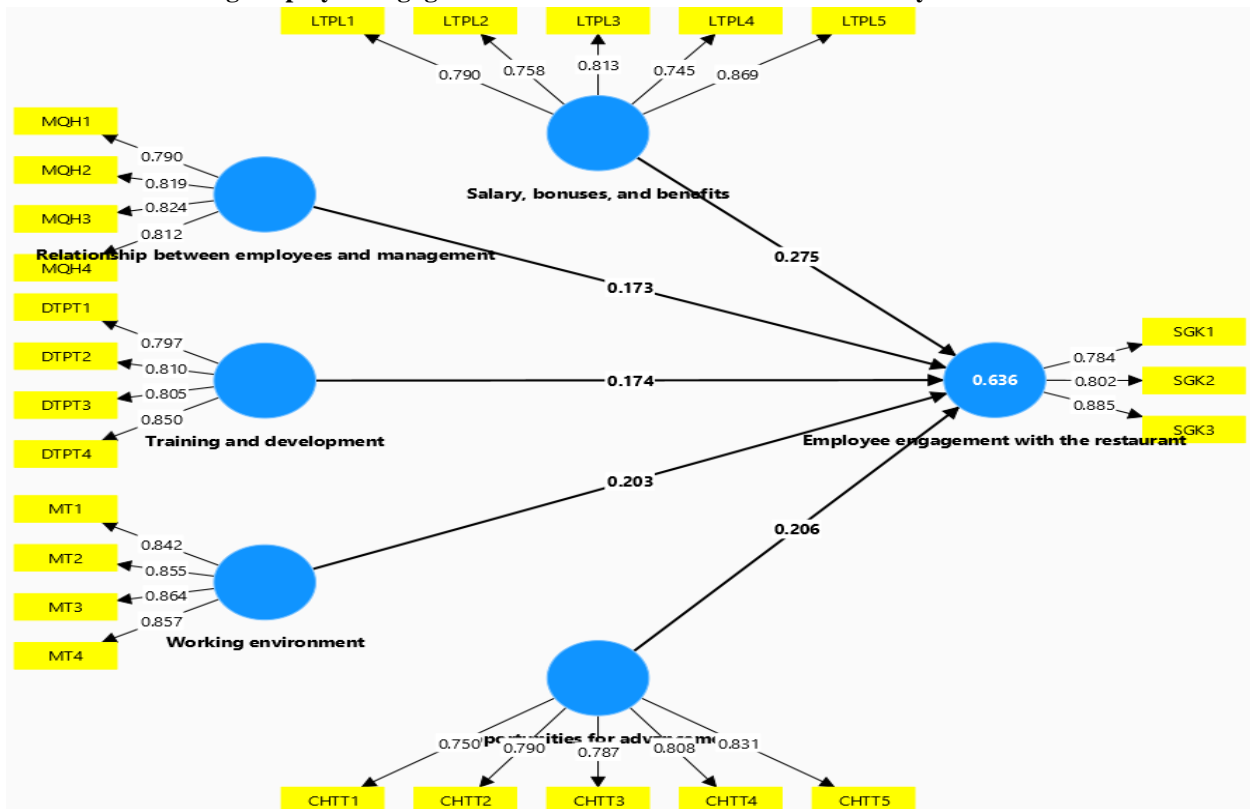
(**Source:** Authors' group tested using Smart PLS)

The results of the Bootstrap analysis to assess the impact relationships are shown in Table 6. According to this, all factors have P values < 0.05, indicating that these factors are statistically significant in demonstrating their relationship and impact on employee engagement with restaurants in Thanh Hóa city (Hypotheses H1, H2, H3, H4, H5 are accepted).

The results from the test in Table 6 show that at a 95% significance level, "Salary, Bonuses, and Benefits" (LTPL) have the strongest impact on employee engagement with restaurants in Thanh Hóa city, with an influence level of 0.275. This is followed by the factor "Opportunities for Advancement" (CHTT) with an influence of 0.206, third is the factor "Working Environment" (MT) with an influence of 0.203, then "Training and Development" (DTPT) with an influence of 0.174. Finally, the factor "Relationship Between Employees and Management" (MQH) has the lowest impact with an influence of 0.173.

Table 6. Path Coefficients of the Structural Equation Model

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Opportunities for advancement -> Employee engagement with the restaurant	0,206	0,206	0,060	3,416	**0,001**
Salary, bonuses, and benefits -> Employee engagement with the restaurant	0,275	0,281	0,056	4,906	**0,000**
- Working environment > Employee engagement with the restaurant	0,203	0,206	0,070	2,900	**0,004**
Relationship between employees and management -> Employee engagement with the restaurant	0,173	0,166	0,056	3,081	**0,002**
Training and development-> Employee engagement with the restaurant	0,174	0,176	0,058	2,997	**0,003**

(**Source:** Authors' group tested using Smart PLS)

3.5.2. Evaluation of the Overall Determination Coefficient R^2 (R-square)

The results of the PLS Algorithm analysis for the R^2 value reflect the extent to which the independent variables explain the dependent variable. The R^2 index measures the overall determination coefficient (R-square value), which is an indicator used to assess the goodness of fit of the model (the explanatory power of the model). According to Hair et al. (2011), R-square values of 0.75, 0.50, or 0.25 are suggested.

The results from Table 7 show that R^2 is 0.636 and the adjusted R^2 is 0.626, which is appropriate for this study. Thus, the independent variables in the model explain 62.6% of "Employee Engagement with Restaurants in Thanh Hóa City."

Table 7. Coefficient of the Degree of Explanation of Independent Variables for the Dependent Variable (R Square)

	R Square	R Square Adjusted
Intention to Choose Restaurants in Thanh Hóa City	0,636	0,626

(**Source:** Authors' group tested using Smart PLS)

3.5.3. Evaluation of the Reliability Index (SRMR)

The Standardized Root Mean Square Residual (SRMR) index indicates the goodness of fit of the research model. According to Hu & Bentler (1998), a well-fitting model typically has an SRMR value less than 0.08.

Table 8. Standardized Root Mean Square Residual (SRMR) Reliability Index

	Saturated Model	Estimated Model
SRMR	0,070	0,070

(**Source:** Authors' group tested using Smart PLS)

According to the SRMR research results in Table 8, the SRMR value of the research model is 0.070, which is less than 0.08. Therefore, this model is suitable for data analysis.

IV. IMPLICATIONS FOR MANAGEMENT

To enhance employee engagement, restaurants need to focus on building a competitive, transparent, and fair salary, bonus, and benefits policy, while also adding benefits such as health insurance, regular bonuses, and gifts during holidays to increase employee satisfaction and loyalty. Additionally, establishing clear career advancement paths and providing leadership skill

development programs will motivate career growth and encourage employees to strive for higher positions. The working environment should also be improved to be healthy, safe, and friendly, through upgrading facilities, maintaining a collaborative work atmosphere, and addressing issues quickly. At the same time, investing in professional training, communication skills, and time management will not only help employees develop personally but also strengthen their engagement and long-term commitment to the company.

Furthermore, restaurants need to focus on building a trusted and open relationship between management and staff through regular meetings, listening to feedback, and resolving conflicts quickly. Developing a corporate culture based on respect, collaboration, and shared goals will drive employee loyalty and work motivation. In addition, applying technology in human resources management, such as using performance tracking software and managing work schedules, will enhance transparency and improve the efficiency of benefits administration. Regular surveys should also be conducted to understand the thoughts and aspirations of employees, which will allow for appropriate adjustments to maintain and improve engagement within the organization.

V. CONCLUSION

The research results show a similarity in the set of factors influencing employee engagement with restaurants in Thanh Hóa city, compared to previously published studies. However, the degree of influence of each factor differs, with the strongest impact being from factor (3) Salary, bonuses, and benefits. The second-largest influence is from factor (5) Opportunities for advancement. In fourth place is factor (4) Working environment, followed by factor (2) Training and development. Finally, the impact of factor (1) Relationship between employees and management is relatively minor compared to factor (2).

Although efforts were made in data collection to identify the factors affecting employee engagement with restaurants, the study was conducted on a small scale and did not consider the effects of moderating variables or deeply analyze employee groups (by job position). Therefore, the initial results primarily describe and explain 62.6% of the phenomenon, while suggesting directions for future research to continue.

REFERENCES

1. Bagozzi, R. and Yi, Y, (1988). *On the Evaluation of Structural Equation Models.* Journal of the Academy of Marketing Sciences, 16, 74-94. http://dx.doi.org/10.1007/BF02723327.
2. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed)*. Mahwah.
3. Comrey, A. L. (1973). A First Course in Factor Analysis. In *Educational and Psychological Measurement* (Vol. 33, Issue 4). New York: Academic. https://doi.org/10.1177/001316447303300442
4. Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
5. Hair, J. ., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202
6. Hair, J. F., Hult, G., Tomas, M., Ringle, C. M., & Sarstedt, M. (2013). A primer on partial least squares structural equation modeling (PLS-SEM): SAGE Publications, Incorporated.
7. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24.
8. Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2nd edition*. SAGE publication Inc, USA.
9. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*, 115–135.
10. Höck, M., & Ringle, C. M. (2006). Strategic networks in the software industry: An empirical analysis of the value continuum. IFSAM VIIIth World Congress.
11. Hock, M., & Ringle, C. M. (2010). Local strategic networks in the software industry: An empirical analysis of the value continuum. *International Journal of Knowledge Management Studies*, *4*(2), 132–151.
12. Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*(4), 424–453. https://doi.org/10.1037/1082-989X.3.4.424
13. Mai, A. V. (2021). Sustainable tourism development in Thanh Hoa.
14. Mai, A. V. (2020) Using PLS–SEM data analysis method in testing scientific research models.
15. Mai, A. V., Tran, T., & Le, Q. Q. (2022). Research model on the relationship among tourism service quality, tourist satisfaction and tourist loyalty in Sam Son, Thanh Hoa province.