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FACTORS AFFECTING EMPLOYEE LOYALTY IN GARMENT ENTERPRISES IN THAI NGUYEN PROVINCE: A STRUCTURAL EQUATION MODELING AND POLICY RECOMMENDATIONS

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ABSTRACT

This study investigated the determinants of employee loyalty in garment enterprises in Thai Nguyen province, Vietnam. Survey data from 282 sewing-line workers in two large garment firms were analyzed using structural equation modeling (SEM). The model showed very good fit (CMIN/df = 1.345; CFI = 0.986; TLI = 0.984; RMSEA = 0.035). The results indicated that compensation and benefits, working conditions, supervisor support, and career development and training all positively affected employee loyalty (P <0.001). Working conditions (β = 0.274) and career development/training (β = 0.271) were the strongest predictors, followed by compensation/benefits (β = 0.224) and supervisor support (β = 0.199). The model explained 50.5% of the variance in employee loyalty (R^2 = 0.505). The findings suggest that improving working conditions and strengthening training/career pathways should be prioritized to enhance workforce retention in garment enterprises.

Keywords: Employee loyalty, garment industry, working conditions, career development and training, SEM.

Các yếu tố ảnh hưởng đến lòng trung thành của người lao động tại các doanh nghiệp may mặc ở tỉnh Thái Nguyên: Phân tích SEM và kiến nghị chính sách

TÓM TẮT

Nghiên cứu này xem xét các nhân tố quyết định lòng trung thành của người lao động trong các doanh nghiệp may mặc tại tỉnh Thái Nguyên, Việt Nam. Dữ liệu khảo sát từ 282 công nhân chuyền may tại hai doanh nghiệp may quy mô lớn được phân tích bằng mô hình phương trình cấu trúc (SEM). Mô hình cho độ phù hợp rất tốt (CMIN/df = 1,345; CFI = 0,986; TLI = 0,984; RMSEA = 0,035). Kết quả cho thấy chế độ lương - phúc lợi, điều kiện làm việc, hỗ trợ của cấp trên và đào tạo - phát triển nghề nghiệp đều tác động tích cực đến lòng trung thành của người lao động (P <0,001). Trong đó, điều kiện làm việc (β = 0,274) và đào tạo/phát triển (β = 0,271) là hai yếu tố tác động mạnh nhất, tiếp theo là lương - phúc lợi (β = 0,224) và hỗ trợ của cấp trên (β = 0,199). Mô hình giải thích 50,5% biến thiên của lòng trung thành (R^2 = 0,505). Kết quả gợi ý các doanh nghiệp may nên ưu tiên cải thiện điều kiện làm việc và tăng cường đào tạo - lộ trình nghề nghiệp để nâng cao khả năng giữ chân lao động.

Từ khoá: Lòng trung thành người lao động, doanh nghiệp may mặc, điều kiện làm việc, đào tạo và phát triển, SEM.

1. INTRODUCTION

Employee loyalty is a strategic concern in labor-intensive manufacturing, particularly in the garment industry, where production stability depends on a trained and continuously available workforce. High employee mobility can disrupt line efficiency, increase recruitment and training costs, and weaken delivery reliability and competitiveness. Meta-analytic evidence shows that turnover-related outcomes are closely associated with employees' work experiences and organizational conditions (Hom *et al.*, 2017). In garment supply chains, workforce vulnerability and employment instability have also been widely noted,

reinforcing the need for evidence-based retention and loyalty practices.

From a theoretical perspective, employee loyalty can be understood through organizational commitment and social exchange mechanisms. Early commitment research conceptualized loyalty as employees' willingness to maintain organizational membership and align with organizational goals (Mowday *et al.*, 1979). Later perspectives further distinguished affective, continuance, and normative components that are relevant to employees' intentions to stay (Allen & Meyer, 1990). Organizational support theory additionally posits that employees develop global beliefs about whether the organization values their contributions and cares about their well-being; such support perceptions are closely related to employee attitudes and retention-related outcomes (Eisenberger *et al.*, 1986; Rhoades & Eisenberger, 2002; Eisenberger *et al.*, 2002). In parallel, the job demands-resources (JD-R) model suggests that demanding work conditions may increase withdrawal tendencies when not balanced by adequate job resources, including supportive supervision and development opportunities (Bakker & Demerouti, 2007).

In labor-intensive garment settings, prior studies have frequently highlighted four practical levers for strengthening employee loyalty: compensation and benefits, working conditions, supervisor support, and career development and training. Compensation and benefits reflect the organization's economic exchange with employees; when rewards are perceived as fair and adequate, employees are more likely to reciprocate with positive work attitudes and stronger intentions to remain (Williams *et al.*, 2003). Working conditions capture the physical and psychosocial environment, workload intensity, and workplace safety; according to the JD-R perspective, unfavorable conditions can increase strain and withdrawal, whereas adequate resources can promote motivation and retention (Bakker & Demerouti, 2007; Hom *et al.*, 2017). Supervisor support shapes daily work experiences through coordination, feedback, and interpersonal treatment, and supportive supervision may strengthen attachment because supervisors are often perceived as agents of the organization (Eisenberger *et al.*, 2002). Career development and training reflect organizational investment in employees' skills and future prospects; developmental support and perceived career growth have been shown to enhance commitment and reduce turnover tendencies (Weng & McElroy, 2012).

Despite these insights, the literature still shows two notable gaps. First, existing studies often examine determinants of retention or loyalty in isolation rather than testing an integrated framework that captures the combined influence of compensation, working conditions, supervisory support, and development opportunities. Second, context-specific evidence from Vietnamese garment enterprises remains limited, although organizational and human resource factors have been shown to matter for employee outcomes in garment-related contexts (Nguyen & Giang, 2020; Pham, 2022). This gap is particularly relevant in Thai Nguyen province, where garment enterprises rely heavily on frontline workers and where labor retention has direct implications for both firm performance and local industrial development.

To address these gaps, this study investigates the determinants of employee loyalty in garment enterprises in Thai Nguyen province. Specifically, the study examines the direct effects of compensation and benefits (CB), working conditions (WC), supervisor support (SS), and career development and training (CD) on employee loyalty (EL) using survey data collected from frontline sewing-line workers. Based on the theoretical foundation and prior empirical evidence, the study proposes the following hypotheses: H1: Compensation and benefits positively affect employee loyalty. H2: Working conditions positively affect employee loyalty. H3: Supervisor support positively affects employee loyalty. H4: Career development and training positively affect employee loyalty.

This study contributes in three ways. First, it develops an integrated, theory-informed framework for explaining employee loyalty in a labor-intensive manufacturing context. Second, it provides empirical evidence from Vietnamese garment enterprises, a setting that remains underexplored in the employee loyalty literature. Third, it offers a basis for managerial and policy implications aimed at improving worker retention and organizational stability in garment enterprises. The remainder of the paper is organized as follows. The next section presents the research methods, followed by the results, discussion, conclusions, and implications.

2. RESEARCH METHODS

2.1. Research model and hypotheses

Based on the theoretical foundation and empirical evidence in the employee loyalty literature, this study proposed a parsimonious model in which employee loyalty (EL) is explained by four antecedents: compensation and benefits (CB), working conditions (WC), supervisor support (SS), and career development and training (CD). The proposed relationships were tested using structural equation modeling (SEM).

Accordingly, the hypotheses are stated as follows:

H1: Compensation and benefits (CB) positively affect employee loyalty (EL).

H2: Working conditions (WC) positively affect employee loyalty (EL).

H3: Supervisor support (SS) positively affects employee loyalty (EL).

H4: Career development and training (CD) positively affect employee loyalty (EL).

2.2. Sampling and data collection

The primary data were collected via a structured questionnaire survey administered to frontline sewing-line workers in two large garment enterprises in Thai Nguyen province: TNG Investment and Trade Joint Stock Company and TDT Garment Joint Stock Company. These two garment groups employ tens of thousands of employees in Thai Nguyen province and neighboring areas, and these two firms have similar business models in terms of products, markets, labor force, and technology. A convenience sampling approach was used. To reduce selection bias, questionnaires were distributed across different workshops/ production lines within the two firms.

Regarding sample size, the study followed a common SEM rule-of-thumb (5-10 observations per observed indicator). With 19 observed variables, the minimum recommended sample size was 95-190. The study distributed 300 questionnaires and obtained 282 valid responses, which satisfied the minimum requirement for SEM estimation.

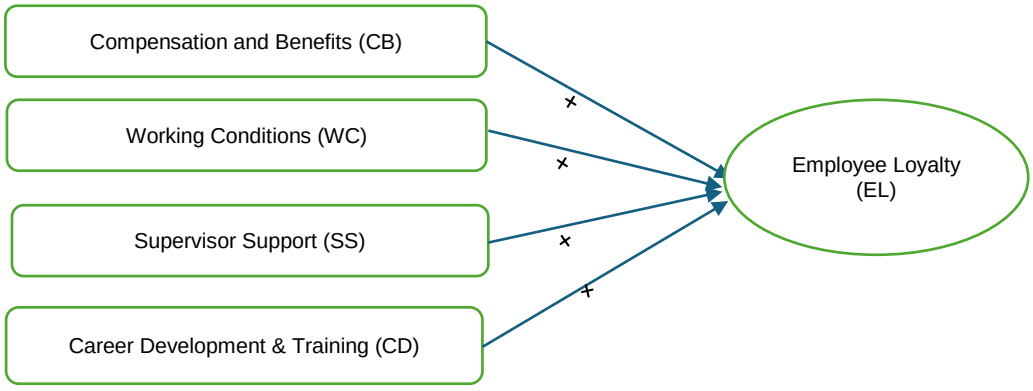

Figure 1. Proposed research model of determinants of employee loyalty in garment enterprises

The questionnaire was developed based on prior studies and adapted to the garment-work context. All items were measured on a 5-point Likert scale (1 = completely disagree to 5 = completely agree). The survey instrument included (i) demographic information and (ii) items measuring CB, WC, SS, CD, and EL. Prior to the official survey, the instrument was reviewed for clarity and suitability for garment workers. Data were collected using paper-based questionnaires with assistance from HR and line management; incomplete responses were removed and valid questionnaires were coded for analysis.

2.3. Data analysis strategy

Data were cleaned, coded, and analyzed using SPSS 22.0 and AMOS 24.0. The analysis followed four steps. Step 1 measured scale reliability using Cronbach's alpha. Items with a corrected item–total correlation below 0.30 were removed. Scales were considered reliable when Cronbach's alpha was at least 0.70. Step 2 involved exploratory factor analysis (EFA). EFA was conducted to examine the underlying factor structure. Adequacy criteria included KMO ≥ 0.50, Bartlett's test P <0.05, and factor loadings ≥ 0.50. Step 3 was confirmatory factor analysis (CFA), which was used to assess the measurement model. Convergent validity was supported when the standardized factor loadings were at least 0.50 (and significant), composite reliability (CR) ≥ 0.70, and average variance extracted (AVE) ≥ 0.50. Discriminant validity was assessed using the Fornell-Larcker criterion and the HTMT ratio (HTMT < 0.85). Lastly, step 4 utilized structural equation modeling (SEM) to test the hypothesized paths (H1-H4). Model fit was evaluated using commonly reported indices such as χ^2/df, CFI, TLI, GFI, and RMSEA with conventional cutoffs.

2.4. Common method bias and methodological limitations

Because all the variables were collected from the respondents at one point in time, potential common method bias and limitations of causal inference may have occurred in the cross-sectional design. To mitigate this concern, the study applied procedural remedies during the questionnaire design and administration (e.g., clear wording, minimizing ambiguity, and encouraging honest responses). In addition, the study reported at least one statistical diagnostic test for common method variance, such as Harman's single-factor test (reporting the percentage of variance explained by the first factor) and/or a CFA single-factor comparison.

Finally, because the study was cross-sectional, the estimated relationships should be interpreted as associations consistent with theory.

3. RESULTS

3.1. Basic characteristics of the survey samples

As can be seen from Table 1, the survey results of the 282 workers at two large-scale garment enterprises in Thai Nguyen showed some notable characteristics of the labor structure. First of all, women accounted for an overwhelming proportion (73.4%), reflecting the characteristics of the textile and garment industry, which requires dexterity, meticulousness, and patience. This also demonstrated the human resources policy towards creating a suitable working environment for female workers.

In terms of age, the group under 30 years old accounted for more than half (54.3%) of the respondents, followed by the 30-40 year old group (31.2%) and the group over 40 years old (14.5%). This structure showed a young workforce, capable of adapting quickly but also easily fluctuating in a competitive labor market.

In terms of seniority, 58.5% of the workers had worked for 2-5 years, 24.1% under 2 years, and 17.4% over 5 years. This showed that the business has maintained a relatively stable level, but the long-term commitment rate is not high, and there needs to be more policies to encourage the retention of skilled workers.

Table 1. Overview of the main characteristics of the respondents

No	Variables	No. of observations	(%)
1	Gender	282	100
	Male	75	26.6
	Female	207	73.4
2	Age	282	100
	< 30 years	153	54.3
	30-40 years	88	31.2
	> 40 years	41	14.5
3	Length of experience	282	100
	< 2 years	68	24.1
	From 2 to under 5 years	165	58.5
	More than 5 years	39	17.4
4	Type of labor contract	282	100
	Long-term	254	90.1
	Short-term	28	9.9

Table 2. Descriptive statistics of the observed variables

Code	Factors and Items	Means	Std.dv
CB	*Compensation and Benefits (CB)*		
CB1	Current salary is appropriate for the labor effort.	3.35	0.870
CB2	Reasonable bonus and allowance policies (overtime, diligence)	3.80	0.854
CB3	Company fully implements social insurance, health insurance, etc.	3.93	0.929
CB4	Other welfare policies (meals, housing, etc.) are satisfactory.	3.48	0.906
WC	*Working Conditions (WC)*		
WC1	Working environment is safe and hygienic.	3.28	0.967
WC2	There are reasonable intensity and working times (less stress).	3.41	0.881
WC3	Equipment and machinery support the work well.	4.12	1.031
WC4	The enterprise cares about work-life balance.	3.37	0.961
SS	*Supervisor Support (SS)*		
SS1	Direct managers are always ready to support employees at work.	3.40	0.954
SS2	Management recognizes and praises achievements promptly.	3.33	0.918
SS3	Management treats employees fairly and shows respect.	3.27	0.922
SS4	Management regularly exchanges and provides feedback.	3.34	0.938
CD	*Career Development and Training (CD)*		
CD1	The enterprise creates conditions to participate in training courses.	3.73	0.971
CD2	Opportunities for promotion and salary increase based on skills.	3.74	0.998
CD3	There are fair promotion and advancement policies.	3.48	0.849
CD4	Employees feel there are prospects for long-term development.	3.40	0.889
EL	*Employee Loyalty (EL)*		
EL1	I intend to continue working at the company for a long time.	3.53	0.573
EL2	I am willing to recommend the company to friends/relatives.	3.51	0.586
EL3	I am willing to work hard when the company needs me.	3.50	0.586

In terms of contract type, 90.1% of workers signed long-term contracts, reflecting the efforts of businesses to stabilize the workforce. However, long-term contracts do not mean high loyalty, so welfare policies, training, and promotion opportunities still need to be focused on.

In general, the structure of young, female-dominated laborers and an average stability facilitate garment production activities, but also require the development of long-term human resource strategies to retain workers and improve productivity and the quality of human resources.

3.2. Descriptive analysis of the factors and items

The results of the descriptive statistics show that the factors affecting employee loyalty at the garment enterprises in Thai Nguyen are generally at a fairly average level.

First, the salary and benefits (CB) factor had an average score of 3.35 to 3.93. The contents of the insurance and welfare regimes were rated the highest, showing that the enterprises care about the basic rights of employees, although the salary level did not really meet expectations.

Second, working conditions (WC) scored from 3.28 to 4.12, in which "good supporting equipment and machinery" scored the highest. This reflects the focus on a safe working environment and production support, but the factor of work-life balance still needs to be improved.

Third, support from direct management (SS) had an average score of 3.27 to 3.40. In general, employees felt cared for, were treated fairly, and were respected by management, although the level of encouragement and feedback was still limited.

Fourth, career development opportunities (CD) ranged from 3.40 to 3.74, reflecting that employees positively evaluated training and promotion opportunities, but were still not really confident about their long-term career path.

Finally, employee loyalty (EL) had an average score of about 3.4. This showed that the level of commitment was not high, and it is necessary to strengthen policies to motivate, encourage, and retain skilled workers.

3.3. Reliability analysis

The results of the Cronbach's alpha analysis showed that all the scales had high reliability, exceeding the threshold of 0.7 as recommended by Nunnally & Bernstein (1994). Specifically, the four factors of CB, WC, SS, and CD had alpha coefficients ranging from 0.839 to 0.880, demonstrating that the observed variables in each scale had good internal consistency, meeting the requirements for use in the next analysis steps.

Notably, the EL scale had a very high alpha coefficient (0.973), demonstrating strong consistency among the variables measuring employee loyalty. This result confirmed that the scales had high reliability, and were suitable for conducting CFA and SEM.

3.4. Exploratory factor analysis (EFA)

The EFA results showed that the KMO index reached 0.888, much higher than the minimum threshold of 0.5, proving that the data were suitable for factor analysis. The Bartlett test had a Chi-square value of 3723.424 ($P < 0.001$), confirming a strong enough correlation between the observed variables. The analysis extracted five factors (CB, WC, SS, CD and EL) with Eigenvalue > 1, consistent with the theoretical model.

The total variance extracted reached 75.582%, higher than the acceptance threshold of 50%, showing that the factors explained most of the variation in the data. This confirmed that the scale had good generalizability and explanatory value, meeting the requirements to continue performing CFA and SEM.

3.5. Confirmatory factor analysis (CFA)

The CFA results showed that the measurement model had a good fit with the

data. Specifically, the test indices were all within the acceptable threshold and even at a very good level: Chi-square/df = 1.308 (< 3); CFI = 0.988, TLI = 0.986, IFI = 0.988, and NFI = 0.951 (all > 0.9); and RMSEA = 0.033 (< 0.08) with PCLOSE = 0.989 (> 0.05). This confirmed that the measurement model structure was highly compatible with the actual data.

The standardized loadings of the observed variables were all greater than 0.5 and were statistically significant, showing that the scales had achieved convergent validity. At the same time, the CFA results also created a premise to continue testing the discriminant value between factors through the CR, AVE, and HTMT analyses in the next step.

The results of the CR and AVE analyses showed that all the scales met the requirements of reliability and convergent validity as recommended by Hair *et al.* (2010). The CR coefficient ranged from 0.844 to 0.973, higher than the threshold of 0.7, and the AVE values from 0.577 to 0.924, which all exceeded the threshold of 0.5. This proved that the observed variables explained the variance of the latent factor well.

Table 3. Cronbach's alpha for the five factors

Factors	No. of Items	Cronbach's Alpha (α)
Compensation and Benefits (CB)	4	0.860
Working Conditions (WC)	4	0.873
Supervisor Support (SS)	4	0.880
Career Development and Training (CD)	4	0.839
Employee Loyalty (EL)	3	0.973

Table 4. Results of the exploratory factor analysis (EFA)

Indicator	Value
Kaiser-Meyer-Olkin - KMO	0.888
Measure of Sampling	3723.424 (df = 171, P <0.001)
Number of Components (Eigenvalue > 1)	5
Cumulative Variance Explained	75.582

Table 5. Summary of the CFA results

Construct	CR	AVE	Conclusion
SS	0.882	0.653	Reliable, valid
WC	0.876	0.638	Reliable, valid
CB	0.861	0.607	Reliable, valid
CD	0.844	0.577	Reliable, valid
EL	.973	.924	Reliable, valid

Table 6. HTMT ratios among the constructs

	CB	WC	SS	CD	EL
CB	1.000				
WC	0.427	1.000			
SS	0.298	0.488	1.000		
CD	0.255	0.362	0.427	1.000	
EL	0.472	0.564	0.525	0.511	1.000

In particular, the EL scale had CR = 0.973 and AVE = 0.924, demonstrating very high reliability. The remaining scales (SS, WC, CB, and CD) also achieved CR values above 0.84 and AVE above 0.57, ensuring reliability of the measurement values.

These results confirmed that the scale met the requirements of reliability and convergent validity, creating a solid foundation for testing discriminant validity and the SEM model in the next steps.

The results of the HTMT analysis showed that all the coefficients were less than 0.85 - the threshold recommended by Henseler *et al.* (2015), proving that the concepts in the model had clear distinction. The HTMT values ranged from 0.255 (CB-CD) to 0.564 (WC-EL). Although WC-EL had the highest correlation, it was still within the allowable limit, ensuring that the concepts did not overlap.

The remaining pairs (SS-EL, CD-EL, etc.) were also below the threshold of 0.85, strengthening the model's discriminant validity.

Thus, the HTMT results confirmed that the scales not only achieved reliability and convergence but also ensured discriminant validity, creating a solid basis for testing the SEM model in the next step.

3.6. Structural model and hypotheses testing

After testing the measurement of the model using CFA, the study continued to conduct the structural equation modeling (SEM) analysis to test the hypothesized relationships between the independent factors and employee loyalty. Figure 2 illustrates the SEM model with standardized estimated coefficients. Model fit indices are also reported to assess the compatibility between the theoretical model and the empirical data.

The observed variables explained the variance of the latent factors well. In particular, the EL scale had CR = 0.973 and AVE = 0.924, demonstrating very high reliability. The remaining scales (SS, WC, CB, and CD) also achieved CR values above 0.84 and AVE above 0.57, ensuring reliability and measurement value.

These results confirmed that the scale met the requirements of reliability and convergent validity, creating a solid foundation for testing discriminant validity and the SEM model in the next steps.

The results of the structural equation modeling showed that the research model had a very good fit with the survey data. The evaluation indexes were all within the recommended threshold: CMIN/df = 1.345 (< 3), CFI = 0.986, TLI = 0.984, IFI = 0.986, NFI = 0.949, RMSEA = 0.035 (< 0.08), and PCLOSE = 0.981 (> 0.05). These results confirmed that the measurement model and the structural model were completely consistent with the actual data, ensuring the reliability of testing the research hypotheses in the next step.

After confirming the measurement model through CFA, structural equation modeling (SEM) was conducted to test the hypothesized relationships between CB, WC, SS, CD, and employee loyalty (EL). The structural model demonstrated a very good fit to the data: CMIN/df = 1.345, CFI = 0.986, TLI = 0.984, IFI = 0.986, NFI = 0.949, RMSEA = 0.035, and PCLOSE = 0.981. These indices indicated that the proposed model was consistent with the empirical data and suitable for hypothesis testing.

As shown in Table 7, all the hypothesized paths were positive and statistically significant (P <0.001), providing support for H1-H4. Specifically, compensation and benefits positively affected employee loyalty (H1: $\beta = 0.224$), working conditions had the strongest effect on loyalty (H2: $\beta = 0.274$), supervisor support also exerted a positive effect (H3: $\beta = 0.199$), and career development and training significantly strengthened employee loyalty (H4: $\beta = 0.271$). Overall, the model explained 50.5% of the variance in employee loyalty ($R^2 = 0.505$).

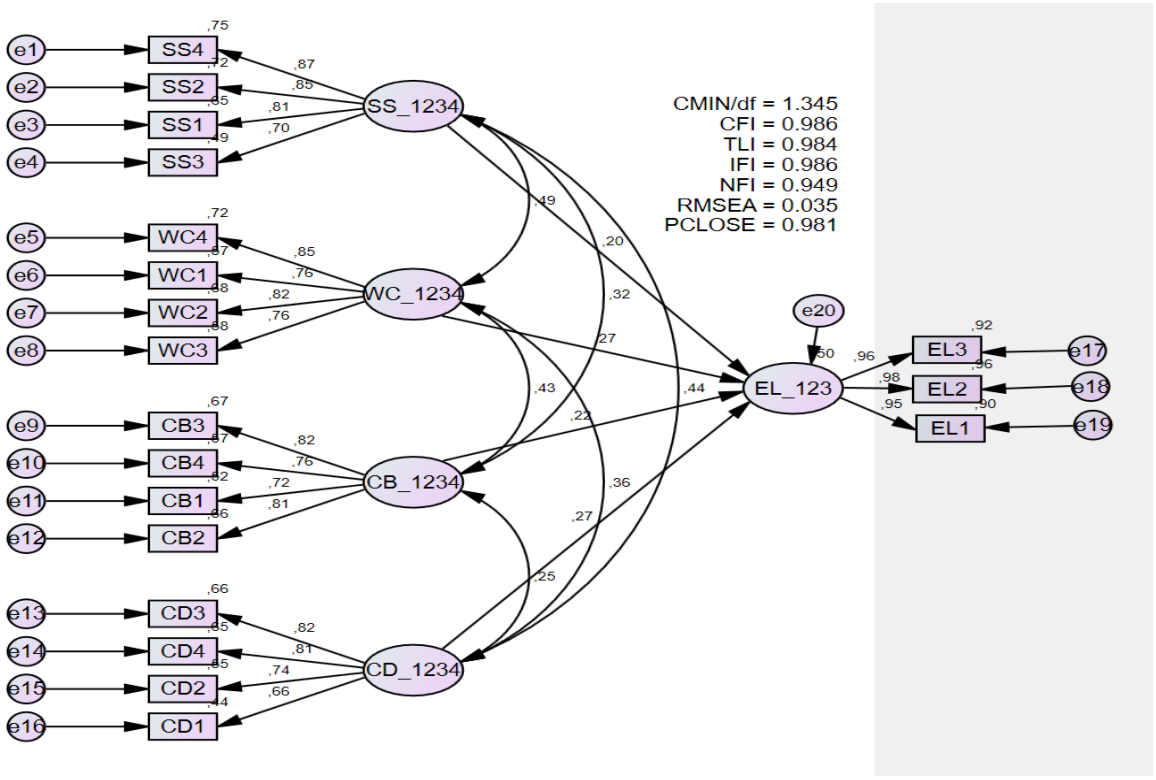

Figure 2. Structural equation model of factors affecting employee loyalty

Table 7. Standardized regression weights, standard errors, critical ratios, and hypothesis testing

Hypo-thesis	Path	Estimate (β)	S.E.	C.R.	P-value	Result
H1	Compensation and Benefits (CB) → Employee Loyalty (EL)	0.224	0.041	4.016	***	Supported
H2	Working Conditions (WC) → Employee loyalty	0.274	0.043	4.431	***	Supported
H3	Supervisor Support (SS) → Employee Loyalty (EL	0.199	0.042	3.325	***	Supported
H4	Career Development and Training (CD) → Employee loyalty	0.271	0.047	4.730	***	Supported

*Note: *** P <0.001; The model explains 50.5% of the variance in the employees' loyalty (R^2 = 0.505).*

4. DISCUSSION

This study tested a parsimonious SEM model linking four workplace determinants-compensation and benefits (CB), working conditions (WC), supervisor support (SS), and career development and training (CD)-to employee loyalty (EL) in garment enterprises. The results supported all the hypotheses (H1-H4) and indicated that the working conditions and career development/training were the strongest predictors of employee loyalty, while compensation/benefits and supervisor support remained positive but comparatively weaker drivers. The model explained 50.5% of the variance in loyalty (R^2 = 0.505), which suggests substantial explanatory power for a behavioral outcome in organizational settings (Hom *et al.*, 2017).

The strong role of working conditions aligns with the job demands-resources (JD-R) model, which emphasizes that high job demands and unfavorable environments increase strain and withdrawal tendencies, whereas adequate resources and safer conditions help sustain motivation and retention (Bakker & Demerouti, 2007). In labor-intensive garment production, improvements in safety, hygiene, ergonomics,

and workload organization may therefore yield immediate loyalty benefits because they directly shape the employees' daily work experience.

Similarly, the sizable effect of career development and training indicates that employees value future-oriented opportunities even in standardized production contexts. This is consistent with evidence that developmental support increases organizational attachment and reduces turnover-related outcomes over time and that perceived career growth is negatively associated with turnover intentions (Weng & McElroy, 2012). Practically, structured training, transparent promotion criteria, and internal mobility pathways (e.g., multi-skill certification and line-leader progression) may strengthen employees' long-term commitment.

Although the compensation and benefits factor was significant, its weaker effect may reflect relatively standardized wage practices across competing factories, reducing pay's differentiating role. This interpretation is consistent with meta-analytic findings that pay satisfaction relates to employee attitudes and withdrawal outcomes, but it represents only one element in a broader retention mechanism (Williams *et al.*, 2000). Supervisor support also contributes positively, supporting organizational support mechanisms: employees who perceive care and respect in daily supervision are more likely to reciprocate with attachment and staying intentions (Eisenberger *et al.*, 1986). The smaller coefficient may indicate partial mediation through unmodeled variables (e.g., perceived organizational support or job satisfaction), which warrants future research.

From an applied standpoint, the findings suggest clear priorities: (1) improve working conditions, (2) invest in training and career pathways, (3) maintain transparent and competitive compensation, and (4) strengthen the front-line supervisory capability. The unexplained variance in loyalty (about 49.5%) implies that additional determinants such as organizational justice, work-life balance, job security, and labor market alternatives should be considered in extended models and preferably tested with longitudinal or multi-wave designs (Hom *et al.*, 2017).

5. CONCLUSIONS AND IMPLICATIONS

5.1. Conclusions

This study examined the determinants of employee loyalty in garment enterprises and found that compensation and benefits (CB), working conditions (WC), supervisor support (SS), and career development and training (CD) all exerted significant positive effects on employee loyalty. The strongest effects were found for working conditions and career development and training. The strongest effects were observed for working conditions and career development/training, indicating that retention in labor-intensive garment settings depends not only on pay but also on a safe and manageable work environment and visible development prospects. Overall, the model explained 50.5% of the variance in employee loyalty, suggesting substantial explanatory power for practical decision-making. Nevertheless, the study relied on cross-sectional, single-source survey data; therefore, causal inferences are limited and common method bias cannot be fully ruled out. Future research may extend the model by incorporating additional determinants (e.g., organizational justice, work-life balance, job security, and labor market alternatives) and by using longitudinal or multi-wave designs to strengthen causal interpretation.

5.2. Managerial Implications

The findings of this study provide several important managerial implications for garment enterprises seeking to improve employee loyalty and maintain workforce stability. Since compensation and benefits, working conditions, supervisor support, and career development and training all had significant positive effects on employee loyalty, managers should adopt an integrated retention strategy rather than relying on a single measure. In particular, because working conditions and career development and training showed the strongest

effects, these two factors should be treated as the highest priorities.

First, garment enterprises should improve working conditions as a central retention strategy. In labor-intensive production environments, employees are strongly affected by heat, noise, ventilation, lighting, machine safety, workstation arrangement, work pressure, and rest periods. Unfavorable conditions can gradually weaken employees' attachment to the enterprise, even when wages are acceptable. Managers should therefore conduct regular assessments of workshop conditions and invest in practical improvements such as better ventilation, safer machinery, improved lighting, ergonomic seating, and more reasonable break arrangements. During peak production periods, enterprises should also monitor overtime and fatigue more carefully in order to reduce physical strain and dissatisfaction.

Second, enterprises should invest more systematically in career development and training. The strong effect of this factor indicates that employees are more likely to remain with the enterprise when they can see future opportunities. In practice, many garment workers may perceive their jobs as repetitive and offering limited advancement. To address this issue, firms should establish and communicate clear career pathways, for example from general operator to multi-skill worker, senior operator, line leader, or supervisory positions. Training should also be continuous rather than limited to initial instruction. In addition to technical skills, workers should be supported in improving teamwork, problem-solving, and adaptability to new production requirements. When employees believe that effort and learning can lead to advancement, loyalty is likely to increase.

Third, compensation and benefits should continue to be managed carefully. Although this factor was not the strongest predictor, it still had a significant positive effect on employee loyalty. Enterprises should therefore review not only basic wages but also attendance bonuses, overtime payments, meal allowances, transport support, and health-related benefits. Just as importantly, compensation policies should be transparent, consistent, and easy for employees to understand. Even modest welfare improvements may strengthen loyalty when they are perceived as fair and stable.

Fourth, enterprises should strengthen supervisor support, especially at the frontline level. Line leaders and supervisors shape employees' daily experiences through communication, task allocation, feedback, and problem-solving. Enterprises should therefore provide training for frontline managers in respectful communication, fair treatment, and conflict handling. Supervisory performance should also be evaluated not only by production output but also by team stability and employee feedback.

Overall, employee loyalty should be treated as a strategic issue because a stable workforce contributes directly to productivity, product quality, delivery reliability, and lower recruitment costs. Therefore, investments in retention should be viewed as investments in the long-term competitiveness of garment enterprises.

6. LIMITATIONS AND FUTURE RESEARCH

This study had several limitations. First, the cross-sectional design restricted strong causal inference; future studies should use longitudinal or multi-wave data to strengthen causal interpretation. Second, because all the constructs were measured from the same respondents at a single time point, common method bias may exist; future research should apply stronger remedies (e.g., marker variables, latent method factor, or multi-source data). Third, although the model explained a meaningful share of employee loyalty (R^2 = 0.505), a substantial proportion remains unexplained, indicating that additional factors such as organizational justice, leadership style, organizational culture, work-life balance, job

security, and labor market alternatives may improve explanatory power. Finally, the sample was drawn from two enterprises in one province, which may limit generalizability; replication across more firms and regions is recommended.

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