

Article

Financial literacy and psychological well-being among workers in micro and small bakeries in Imbabura, Ecuador: a human resource management perspective

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Abstract: This study examined the association between financial literacy and psychological well-being among workers in micro and small bakeries in Imbabura, Ecuador. Grounded in the literature on financial literacy, financial stress, and worker well-being, the research addressed an underexplored labor population in a context of everyday economic vulnerability. A quantitative, non-experimental, cross-sectional, and correlational design was used. The study included 180 workers selected through a census-based approach from the accessible population. Financial literacy was assessed using an instrument based on the OECD/INFE Financial Literacy Measurement Toolkit, covering financial knowledge, financial behavior, and financial attitudes, while psychological well-being was measured using the 36-item Ryff Psychological Well-Being Scale. Both instruments showed adequate internal consistency and sampling adequacy. Descriptive results indicated that moderate levels predominated across both constructs. In financial literacy, the moderate level was the most frequent category both by dimension and overall (39.4%). A similar pattern was observed for psychological well-being, where the moderate level also predominated (40.6%). Normality tests indicated non-normal distributions for the total scores; therefore, Spearman's rho was applied. The findings revealed a statistically significant positive association between financial literacy and psychological well-being ($\rho = 0.366$, $p < 0.001$). These results suggest that higher levels of financial literacy are associated with higher levels of psychological well-being among workers in micro and small bakeries in Imbabura, Ecuador. Drawing on human resource management and organizational behavior frameworks—particularly social exchange theory and the Job Demands–Resources model—the study contributes empirical evidence from a local emerging-economy context and positions financial literacy as a workplace resource with implications for perceived organizational support, employee well-being strategies, and human resource practice in micro and small enterprises.

Keywords: financial literacy; psychological well-being; human resource management; perceived organizational support; micro and small bakeries; workers; Imbabura

1. Introduction

Because it affects how people comprehend financial information, weigh their options, and make decisions about saving, budgeting, borrowing, and long-term planning, financial literacy has grown in importance in the fields of economics, behavioral finance, and human resource management. People are expected to take on more responsibility for managing their financial resources and foreseeing future financial demands in today's financial situations. As a result, financial literacy should

be viewed as an applied skill that integrates knowledge, attitudes, behaviors, planning abilities, and the useful use of information in day-to-day decision-making (Lusardi, 2019; Lusardi & Mitchell, 2014; Lusardi & Streeter, 2023).

Workers who must manage home spending, debt, savings, and financial uncertainty under tight economic conditions are especially affected by financial literacy. Stronger financial literacy often improves resource management, decision-making, and resilience, although self-control, self-efficacy, and financial attitudes remain necessary to convert knowledge into consistent action (Bai, 2023; Kumar et al., 2023; Rahman et al., 2021; Sabri et al., 2020).

These experiences extend beyond financial outcomes: financial stress, income instability, and limited perceived control over money have been linked to anxiety, psychological discomfort, and reduced well-being, while stronger financial control may lessen this emotional burden. This suggests financial literacy may be relevant to psychological functioning and employee well-being, in addition to financial decision-making (Baquero, 2023; Guan et al., 2022; Ingale & Paluri, 2022; Osman et al., 2018).

Positive functioning in the emotional, cognitive, and social domains is referred to as psychological well-being. It encompasses self-acceptance, independence, constructive relationships, mastery of the environment, life's purpose, and personal development. Psychological well-being, in contrast to methods that just concentrate on the absence of mental illnesses, represents the ability to deal with challenges, uphold important objectives, form positive connections, and operate well in one's surroundings. Working environment, financial obligations, perceived control, and the resources available to deal with daily obstacles can all have an impact on these capacities in occupational contexts (Gautam et al., 2024).

From a human resource management (HRM) and organizational behavior perspective, financial literacy and psychological well-being can also be interpreted through frameworks that explain how organizational resources translate into employee functioning. Social exchange theory suggests that when organizations provide resources employees value, such as financial education, fair compensation practices, or support for personal financial management, employees reciprocate with more positive attitudes and behaviors toward the organization, including higher perceived organizational support. Complementarily, the Job Demands–Resources (JD-R) model frames financial literacy as a personal resource that can buffer the psychological strain associated with job and life demands, with direct implications for HRM practice. Prior HRM-oriented research has also shown that financial stress is associated with lower pay satisfaction, reduced productivity, and higher absenteeism, reinforcing financial capability as a legitimate HRM concern rather than a purely individual financial matter.

The direct correlation between financial literacy and psychological well-being is still relatively unexplored, despite the fact that the link between financial literacy and financial well-being has garnered significant attention. Stronger financial literacy enhances people's capacity to manage income and expenses, lower uncertainty, make future plans, and feel more in control of their financial circumstances, according to a tenable explanation. These skills might promote more adaptive psychological functioning and lessen ongoing financial anxiety. Financial literacy may improve the tools people use to deal with fundamental economic challenges, but it does not solve them (Bai, 2023; Lusardi & Streeter, 2023; Rahman et al., 2021; Sabri et al., 2020).

Additionally, the data that is now accessible is focused in groups like public

employees, company owners, university students, older persons, and workers in comparatively formal organizational contexts. Despite regularly experiencing income unpredictability, less access to financial education, fewer organizational safeguards, and fewer possibilities for organized financial planning, operational workers in micro and small businesses continue to be underrepresented. In emerging economies, where micro and small businesses significantly contribute to the creation of jobs and household sustenance, this study deficit is especially pertinent (Fong et al., 2021; Mokhtar et al., 2015; Molina-García et al., 2023).

A pertinent setting for analyzing this link is micro and tiny bakeries. Employees in these businesses may have low or inconsistent pay, long hours, little institutional support, and limited access to financial education. These circumstances may worsen the psychological effects of poor money management and raise economic vulnerability. However, there is no empirical data on whether financial literacy and psychological well-being among Ecuadorian bakery employees are substantially correlated. The design of financial education and worker well-being programs tailored to small producing units can be supported by examining this link (Gosal & Nainggolan, 2023; Graña-Alvarez et al., 2022; Meriam et al., 2023; Molina-García et al., 2023).

Thus, the purpose of this study was to examine, from an HRM perspective, the relationship between employees' financial literacy, understood as a workplace-relevant financial capability, and their psychological well-being among workers in micro and small bakeries in Ibarra, Imbabura, Ecuador. Because financial capability and psychological well-being are recognized in the HRM and organizational behavior literature as antecedents of perceived organizational support, engagement, and retention, this study addresses how financial literacy may function as a resource that organizations can support to sustain worker well-being in small-enterprise settings. While psychological well-being was evaluated through self-acceptance, positive relationships, autonomy, environmental mastery, purpose in life, and personal growth, financial literacy was assessed through financial knowledge, financial behavior, and financial attitudes.

1.1. Theoretical framework: social exchange theory and the job demands-resources model

This study is grounded in two complementary human resource management (HRM) and organizational behavior frameworks that explain how financial literacy, as a workplace-relevant resource, may relate to employee psychological well-being.

Social exchange theory (Blau, 1964) posits that workplace relationships are built on reciprocal exchanges of valued resources between employees and organizations. When organizations provide resources employees value, such as financial education, fair compensation practices, or support for personal financial management, employees reciprocate with more positive attitudes and behaviors toward the organization, including higher perceived organizational support (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). Within this framework, workers' financial literacy can be understood not merely as an individual competency but as a resource whose organizational support may be reciprocally linked to more favorable psychological outcomes.

The Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2007) complements this perspective by framing financial literacy as a personal resource. According to the JD-R model, personal and job resources help employees cope with job and life demands, buffering strain and sustaining well-being and engagement.

Financial literacy, understood as a resource that strengthens employees' capacity to manage financial demands and reduce financial strain, is theorized to operate similarly to other personal resources examined in the JD-R literature, with potential implications for psychological functioning. Prior HRM-oriented research has also shown that financial stress is associated with lower pay satisfaction and workplace performance (Kim & Garman, 2004), reinforcing financial capability as a legitimate HRM concern.

Taken together, these two frameworks provide a coherent theoretical rationale for examining the association between financial literacy and psychological well-being in an HRM-relevant labor population: social exchange theory situates financial literacy within the broader employee–organization relationship, while the JD-R model explains its potential function as a resource that supports well-being under conditions of financial demand. This dual-framework approach guided both the interpretation of the observed correlation and the practical implications discussed in this study.

2. Materials and methods

2.1. Research design

This study adopted a quantitative approach with a non-experimental, cross-sectional, and correlational design. The purpose of the design was to examine the relationship between financial literacy and psychological well-being among workers in micro and small bakeries in Ibarra, Imbabura, Ecuador. The study followed a deductive logic, as the empirical analysis was guided by previous theoretical developments on financial literacy, financial well-being, and psychological well-being, which were then examined in the target labor context (Organisation for Economic Co-operation and Development (OECD), 2022) (Table 1).

2.2. Population and sample

Table 1. Sociodemographic characteristics of the sample (n = 180).

Variable	Category	Frequency	Percentage
Gender	Male	85	47.2%
	Female	86	47.8%
	Other	9	5.0%
Educational level	Primary	26	14.4%
	Secondary	53	29.4%
	Technical	55	30.6%
	University	46	25.6%
Income level	Low	54	30.0%
	Medium	71	39.4%
	High	55	30.6%

2.3. Data collection procedure

Data were collected through the direct administration of a structured questionnaire in the participants' workplaces. The instrument was applied in person to workers in micro and small bakeries, which made it possible to gather information

under the conditions in which participants performed their daily activities. Participation was voluntary. Before answering the questionnaire, participants were informed about the study objective, the academic use of the information, and the confidentiality of their responses (El Zouki et al., 2022). Only individuals who agreed to participate provided data for the study. Once collected, the data were entered into Microsoft Excel and then processed in IBM SPSS Statistics for coding, verification, and statistical analysis.

2.4. Measurement instruments

The questionnaire included three sections: sociodemographic information, financial literacy, and psychological well-being.

2.4.1. Financial literacy

Financial literacy was measured using an instrument based on the OECD/INFE Financial Literacy Measurement Toolkit. The instrument assessed three core dimensions: financial knowledge, financial behavior, and financial attitudes. Based on these dimensions, a composite financial literacy score was computed to estimate participants' overall level of financial literacy (**Table 2**).

Table 2. Internal consistency and factorability indicators of the financial literacy instrument.

Indicator	Value
Cronbach's alpha	0.869
Number of items	16
Kaiser–Meyer–Olkin index (KMO)	0.924
Bartlett's test of sphericity, χ^2	787.932
Degrees of freedom (df)	120
p-value	< 0.001

The Financial literacy instrument comprised 16 analyzed items and showed good internal consistency (Cronbach's $\alpha = 0.869$). Sampling adequacy was also strong (KMO = 0.924), and Bartlett's test of sphericity was statistically significant ($\chi^2 = 787.932$, $df = 120$, $p < 0.001$), supporting the suitability of the data for subsequent analysis.

2.4.2. Psychological Well-Being

Psychological well-being was assessed using the Ryff Psychological Well-Being Scale in its 36-item version, organized around six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Responses were collected on a six-point Likert-type scale. Reverse-worded items were recoded prior to analysis (**Table 3**).

Table 3. Internal consistency and factorability indicators of the Psychological Well-Being Instrument (Ryff Scale).

Indicator	Value
Cronbach's alpha	0.862
Number of items	36
Kaiser–Meyer–Olkin index (KMO)	0.948

Continuation Table:

Indicator	Value
Bartlett's test of sphericity, χ^2	3410.533
Degrees of freedom (df)	630
p-value	< 0.001

The analyzed psychological well-being instrument showed good internal consistency (Cronbach's $\alpha = 0.862$). Sampling adequacy was excellent (KMO = 0.948), and Bartlett's test of sphericity was statistically significant ($\chi^2 = 3410.533$, $df = 630$, $p < 0.001$), indicating that the data were appropriate for the planned statistical analyses.

2.5. Data analysis techniques

All analyses were conducted in IBM SPSS Statistics. The analytical strategy included descriptive analysis, reliability and validity assessment, interpretive scaling of the instruments, and correlational testing.

Given that all variables were collected through self-report at a single time point, common method bias is a potential concern in this design. Several procedural safeguards recommended in the literature were incorporated during data collection to mitigate this risk, including guaranteeing respondent anonymity, using differently structured response formats across the two instruments, and administering reverse-worded items within the Ryff scale to reduce consistency artifacts. In addition, Harman's single-factor test was conducted by entering all 52 financial literacy and psychological well-being items into an unrotated principal-axis factor analysis; the first factor accounted for 16.3% of the total variance, well below the 50% threshold conventionally used to flag common method bias as a serious concern, indicating that common method variance is unlikely to account for the observed association.

To examine whether the association between financial literacy and psychological well-being remained after accounting for sociodemographic characteristics, a hierarchical multiple regression was conducted with psychological well-being as the dependent variable. Gender, educational level, and income level were entered as dummy-coded control variables in the first step, followed by financial literacy in the second step. A partial correlation between financial literacy and psychological well-being, controlling for these same sociodemographic variables, was also computed as a robustness check.

2.6. Ethical considerations

The study was conducted in accordance with institutional ethical standards for research involving human participants. Participants were informed about the study purpose, the voluntary nature of participation, the confidentiality of their responses, and their right to withdraw at any time. Informed consent was obtained prior to data collection. Formal ethical approval by a specialized institutional research ethics committee was not required under prevailing institutional norms for non-clinical, non-experimental survey research involving anonymous, voluntary responses from adult participants, minimal risk, and no collection of sensitive personal data. This determination is consistent with common regional practice for descriptive and correlational workplace survey studies of this type. Nonetheless, the authors recognize the value of formal ethical committee review and will pursue institutional ethics

committee approval as standard practice in future research. Authorization to conduct the study and access the participating bakeries was granted by the management of Panadería y Pastelería Nuestra Tradición, which represented the participating bakery group.

3. Results

This section presents the descriptive distributions of Financial literacy and psychological well-being, followed by the normality assessment of the total scores and the correlational analysis between the two study variables.

3.1. Descriptive levels of financial literacy

Table 4 summarizes the distribution of participants across the three Financial literacy dimensions. Across all dimensions, the moderate level was the most frequent category. Financial knowledge showed the highest concentration in the moderate category (47.8%), followed by financial attitudes (45.0%) and financial behaviour (37.8%) (Bai, 2023; Sabri et al., 2020). High levels were less common, ranging from 20.6% to 28.9%, while low levels represented roughly one-third of the sample in each dimension.

Table 4. Distribution of financial literacy levels by dimension (n = 180).

Dimension	Low, n (%)	Moderate, n (%)	High, n (%)
Financial knowledge	57 (31.7)	86 (47.8)	37 (20.6)
Financial behavior	60 (33.3)	68 (37.8)	52 (28.9)
Financial attitudes	54 (30.0)	81 (45.0)	45 (25.0)

At the overall level, the moderate category also predominated in the Financial literacy composite score. As shown in **Table 5**, 39.4% of the participants were classified in the moderate level, compared with 32.8% in the low level and 27.8 % in the high level.

Table 5. Overall distribution of financial literacy levels (n = 180).

Level	Frequency	Percentage
Low	59	32.8%
Moderate	71	39.4%
High	50	27.8%
Total	180	100.0%

3.2. Descriptive levels of psychological well-being

Table 6 presents the distribution of the six dimensions of psychological well-being. Across all dimensions, the moderate level was the most frequent category, indicating that participants generally reported intermediate levels of psychological well-being. Purpose in Life showed the highest proportion in the moderate category (43.9%), followed by Autonomy (42.8%) and Self-Acceptance (41.1%). High levels were observed across all dimensions, ranging from 25.0% in Purpose in Life to 28.9% in Positive Relations with Others.

Table 6. Distribution of psychological well-being levels by dimension (n = 180).

Dimension	Low, n (%)	Moderate, n (%)	High, n (%)
Self-acceptance	57 (31.7)	74 (41.1)	49 (27.2)
Positive relations with others	56 (31.1)	72 (40.0)	52 (28.9)
Autonomy	57 (31.7)	77 (42.8)	46 (25.6)
Environmental mastery	58 (32.2)	72 (40.0)	50 (27.8)
Purpose in life	56 (31.1)	79 (43.9)	45 (25.0)
Personal growth	57 (31.7)	73 (40.6)	50 (27.8)

Regarding the “Other” gender category reported in **Table 1** (n = 9, 5.0%), no disaggregated statistical analyses were conducted given the small subgroup size, which would have limited statistical power and could have compromised participant anonymity within a small, community-based sample. This category was retained in the sociodemographic characterization to accurately represent participants who did not identify within the binary male/female categories, consistent with inclusive survey design practice.

The overall psychological well-being score followed a similar pattern. As reported in **Table 7**, the moderate level was the most frequent category (40.6%), followed by the low level (30.0%) and the high level (29.4%).

Table 7. Overall distribution of psychological well-being levels (n = 180).

Level	Frequency	Percentage
Low	54	30.0%
Moderate	73	40.6%
High	53	29.4%
Total	180	100.0%

At the score level, the mean financial literacy score was 35.06 (SD = 11.74, range = 12–59), whereas the mean psychological well-being score was 125.37 (SD = 43.37, range = 41–215). These values are consistent with the predominance of moderate interpretive levels observed in the categorical analysis.

3.3. Normality testing

Before testing the study hypothesis, the distribution of the total scores for Financial literacy and psychological well-being was examined. As shown in **Table 8**, the Shapiro–Wilk test was statistically significant for both variables ($p < 0.05$), indicating deviations from normality. Accordingly, the subsequent association analysis was conducted using Spearman’s rho.

Table 8. Normality tests for the total study variables (n = 180).

Variable	Kolmogorov–Smirnov statistic	p-value	Shapiro–Wilk statistic	p-value
Financial literacy total	0.065	0.059	0.979	0.007
Psychological well-being total	0.074	0.018	0.974	0.002

The Kolmogorov-Smirnov and Shapiro-Wilk tests were used to analyze the distributions of the financial literacy and psychological well-being total scores prior to assessing the study hypothesis.

The Shapiro-Wilk test was statistically significant for both financial literacy ($W = 0.979$, $p = 0.007$) and psychological well-being ($W = 0.974$, $p = 0.002$), as **Table 8** demonstrates. These findings showed that there was a considerable deviation from a normal distribution for both total scores.

3.4. Correlation between financial literacy and psychological well-being

Table 9 presents the bivariate association between the two total scores. A statistically significant positive correlation was found between Financial literacy and psychological well-being (Spearman's $\rho = 0.366$, $p < 0.001$, $n = 180$). The magnitude of the coefficient indicates a positive association of small-to-moderate size. Therefore, the results support the hypothesis that higher levels of Financial literacy are associated with higher levels of psychological well-being in the study sample.

Table 9. Spearman correlation between financial literacy and psychological well-being ($n = 180$).

Variables	Spearman's ρ	p-value	n
Financial literacy total ↔ Psychological well-being total	0.366	< 0.001	180

The figure shows a positive relationship between the total scores of Financial literacy and psychological well-being among workers in micro and small bakeries.

3.5. Robustness check: controlling for sociodemographic variables and common method bias

3.5.1. Common method bias

To assess whether the observed association could be attributable to common method variance, Harman's single-factor test was conducted on all 52 financial literacy and psychological well-being items. An unrotated principal-axis factor analysis yielded a first factor explaining 16.3% of the total variance, well below the 50% threshold conventionally used to indicate a serious common method bias problem, suggesting that common method variance is unlikely to explain the observed correlation.

3.5.2. Control variable analyses

A hierarchical multiple regression was then conducted to examine whether financial literacy remained associated with psychological well-being after accounting for gender, educational level, and income level. In Step 1, the sociodemographic control variables explained approximately 1.0% of the variance in psychological well-being ($R^2 = 0.010$) and no individual control variable reached statistical significance. In Step 2, adding financial literacy significantly improved the model ($\Delta R^2 = 0.141$), with the full model explaining 15.1% of the variance in psychological well-being, $F(8, 171) = 3.80$, $p < 0.001$. Financial literacy remained a significant, positive predictor of psychological well-being ($B = 1.393$, $SE = 0.261$, $\beta = 0.377$, $p < 0.001$) after controlling for gender, educational level, and income level, as summarized in **Table 10**.

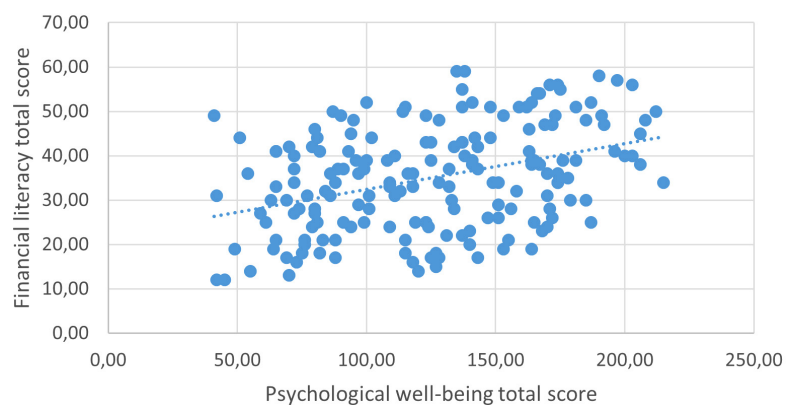
Table 10. Hierarchical regression predicting psychological well-being from financial literacy, controlling for sociodemographic variables (n = 180).

Predictor	B	SE	β	p
Step 1: Controls				
Gender (Male)	2.747	6.506	0.031	0.673
Gender (Other)	3.262	14.636	0.017	0.824
Education (Secondary)	9.954	9.881	0.114	0.315
Education (Technical)	4.606	9.874	0.053	0.642
Education (University)	8.952	10.238	0.093	0.383
Income (Low)	1.420	7.955	0.016	0.859
Income (Medium)	4.703	7.442	0.055	0.528
Step 2: Financial literacy				
Financial literacy total	1.393	0.261	0.377	< 0.001
R ² (Step 1/Step 2)	0.010/0.151			
ΔR^2	0.141			
F (df)	3.80 (8, 171)			< 0.001

Note. Categorical variables were dummy-coded; reference categories were Female (Gender), Primary (Education), and High (Income). B = unstandardized coefficient; SE = standard error; β = standardized coefficient.

As a further robustness check, a partial correlation between financial literacy and psychological well-being was computed controlling for gender, educational level, and income level. The partial correlation remained positive and statistically significant (partial $r = 0.377$, $p < 0.001$), closely matching the zero-order Spearman correlation reported in **Table 9** ($\rho = 0.366$). Taken together, these results suggest that the observed association is unlikely to be primarily explained by common method variance and is not substantially confounded by gender, educational level, or income level.

Figure 1 visually supports the correlational findings by showing a positive association between Financial literacy and psychological well-being scores. Although the data points show moderate dispersion, the overall trend suggests that higher Financial literacy scores are associated with higher psychological well-being scores.

**Figure 1.** Scatterplot of the association between Financial literacy and psychological well-being.

4. Discussion

Given the cross-sectional and correlational design, these results describe an association rather than a causal or directional relationship between the two variables. The present study examined the association between financial literacy and psychological well-being among workers in micro and small bakeries in Imbabura, Ecuador. The results showed a statistically significant positive association between the two variables, with a small-to-moderate effect size (Spearman's $\rho = 0.366$, $p < 0.001$). This finding supports the study hypothesis and suggests that workers with higher levels of Financial literacy also tend to report higher levels of psychological well-being. Although the cross-sectional and correlational design does not permit causal inference, the observed pattern is theoretically meaningful because it indicates that financial competencies may be linked not only to economic functioning but also to broader dimensions of personal well-being in a labor population exposed to everyday financial vulnerability.

This finding is consistent with previous literature showing that financial literacy is associated with better financial behavior, stronger self-efficacy, and improved financial well-being (Fong et al., 2021; Mokhtar & Husniyah, 2017; Molina-García et al., 2023). At the same time, the broader literature has shown that financial stress, economic uncertainty, and low perceived control over money are related to anxiety, depressive symptoms, psychological distress, and lower mental well-being (García-Santillán & Santana, 2025; Tutut Rindiar Gandi & Aula Ahmad Hafidh Saiful Fikri, 2024). Taken together, the pattern of associations observed is consistent with the possibility that financial literacy and psychological well-being are connected through financial management, reduced uncertainty, and perceived control over everyday economic demands. However, these potential mechanisms were not directly tested in the present study and remain speculative. They should be treated as a direction for future confirmatory research rather than as an explanation of the present findings. In this sense, the present study does not simply replicate previous work on financial literacy and financial well-being; rather, it extends that discussion by showing that a similar relationship is also observable in psychological well-being within an underexplored labor context.

The descriptive results reinforce this interpretation. Across both Financial literacy and psychological well-being, moderate levels were the most frequent category in the sample. This pattern suggests that the participants were not characterized by severely deteriorated profiles, but neither did they display consistently high levels across the measured dimensions. In practical terms, this intermediate profile is especially relevant because it indicates a group with functional yet still improvable competencies and well-being conditions (Karam et al., 2022; Guan et al., 2022). The predominance of moderate levels in financial knowledge, financial attitudes, and psychological well-being dimensions such as autonomy, purpose in life, and personal growth suggests that this population may benefit from preventive and developmental interventions before more severe financial or emotional difficulties emerge.

The contextual contribution of the study is also important. Much of the existing literature has focused on students, older adults, public employees, or more formal labor populations, whereas workers in micro and small enterprises remain underrepresented (Gosal & Nainggolan, 2023; Mishra et al., 2024; Sabri et al., 2020; Yufra-Urrutia et al., 2025). This study contributes evidence from workers in micro and small bakeries, a productive setting characterized by modest incomes, daily operational pressures, and limited access to structured Financial literacy. From an

HRM perspective, these findings suggest that financial literacy should not be treated only as an individual economic competency, but as a workplace resource that human resource management can actively support. Consistent with social exchange theory and the JD-R model, organizations that invest in employees' financial capability may be perceived as providing meaningful organizational support, which the broader HRM literature links to stronger engagement, commitment, and retention. In small productive units such as bakeries, relatively low-cost HR interventions—brief financial education sessions, debt and budgeting counseling, savings incentive programs, or referral to employee assistance programs (EAP)—could be incorporated into benefits design and talent retention strategies, extending the reach of financial wellness beyond formal or larger organizations (Chaturvedi Sharma, 2025; Feltmann et al., 2023; MVUNABANDI & GADZIKWA, 2024; Parsai & Chandok, 2025).

Given that micro and small bakeries typically lack formal HR departments, these interventions could realistically be delivered through partnerships with local community organizations, cooperatives, municipal employment offices, or government-run financial education programs, rather than requiring an in-house HR function. Embedding brief financial guidance into existing supervisory or ownership routines, rather than creating new formal structures, may offer a feasible entry point for financial wellness support in resource-constrained productive units.

This study has several limitations that should be acknowledged. First, its non-experimental and cross-sectional design does not allow causal conclusions. Second, the use of self-report measures may introduce response bias. Third, the analysis was limited to workers in one productive sector and one national context, which restricts the generalizability of the findings to other occupational groups or settings. Workers in larger, more formalized organizations with established HR departments, structured benefits, or unionized protections may show different patterns, given greater institutional buffering against financial vulnerability. Similarly, results may not generalize to other productive sectors with different income structures or to national contexts with different social protection systems; future comparative research across sectors and regions would help clarify the boundary conditions of these findings. Additional limitations include the potential for social desirability bias in self-reported financial behavior, the absence of a qualitative component capturing workers' lived experiences, and the lack of longitudinal data to assess temporal dynamics between the study variables. Although a robustness check confirmed that the association between financial literacy and psychological well-being holds after controlling for gender, educational level, and income level (see Section 3.5), it was not possible to directly test the mediating mechanisms discussed above; In addition, the study did not test mediating mechanisms such as financial stress or financial well-being, even though the literature suggests that these variables may help explain the observed association (Barrafrem et al., 2020; Lusardi, 2019; Lusardi & Mitchell, 2023). Future research could address these limitations by using longitudinal designs, broader sectoral comparisons, and multivariate or mediation models that examine how Financial literacy relates to psychological well-being through intermediate behavioral and financial pathways. Overall, the present findings provide empirically grounded support for considering financial literacy as a relevant factor in the well-being of workers employed in micro and small bakeries in Imbabura, Ecuador.

5. Conclusion

This study examined the association between financial literacy and psychological

well-being among workers in micro and small bakeries in Imbabura, Ecuador. The findings showed a statistically significant positive relationship between the two variables, indicating that workers with higher levels of Financial literacy also tended to report higher levels of psychological well-being. At the descriptive level, both constructs were characterized primarily by moderate scores, suggesting that the study population did not exhibit severe deterioration but rather an intermediate profile with clear room for improvement.

From a theoretical standpoint, this study contributes to HRM scholarship by extending the understanding of financial literacy as a non-traditional, HR-relevant resource. Framed through social exchange theory and the JD-R model, the findings suggest that financial capability functions similarly to other organizationally relevant resources examined in HRM research, with implications for how employees perceive organizational support and manage demands in their work and personal lives. From a practical standpoint, this study suggests that HRM practitioners, even in resource-constrained settings without formal HR departments, can act on these findings through low-cost, partnership-based interventions, such as financial education sessions, community or governmental program referrals, and debt and savings guidance, that integrate financial wellness into broader employee well-being strategies. Although the correlational and cross-sectional design does not allow causal inference, the results support the view that financial literacy is meaningfully associated with broader dimensions of worker well-being.

From a human resource management standpoint, the results suggest that financial literacy should not be treated solely as an individual economic or technical skill, but as a workplace resource that HR practice can help cultivate. In micro and small bakeries, integrating financial wellness elements, such as financial education sessions, debt and savings guidance, and referral to employee assistance programs, into benefits design and retention strategies may support occupational well-being, strengthen perceived organizational support, and contribute to healthier financial decision-making among employees. This is especially relevant in labor contexts characterized by modest incomes, limited formal training opportunities, and higher exposure to financial vulnerability, where HRM has a meaningful role to play even within small, resource-constrained organizations.

The study should also be interpreted in light of its limitations. The use of self-report measures, the focus on a single productive sector, and the non-experimental cross-sectional design restrict the scope of generalization and prevent causal claims. Future research could strengthen this line of work by using longitudinal designs, testing mediating mechanisms such as financial stress or financial well-being, and comparing workers across different sectors and organizational contexts. Overall, the present study provides empirical support for the association between financial literacy and psychological well-being among workers in micro and small bakeries in Ibarra, Imbabura, Ecuador.

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