

Modeling Cultural Resilience of the Turonggo Yakso Tradition to Foster Students' Independence and Cultural Literacy: A Confirmatory Factor Analysis and Structural Equation Modeling Approach

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Abstract

The study explores the cultural resilience model of *Turonggo Yakso* as an instrument for strengthening students' independence and cultural literacy in elementary education. The research aims to verify the validity and reliability of three latent constructs cultural resilience, independence, and cultural literacy and to analyze the structural relationships among them. A quantitative confirmatory design was implemented through *Confirmatory Factor Analysis (CFA)* and *Structural Equation Modeling (SEM)* using the *Partial Least Squares (PLS)* approach. Data were obtained from 330 elementary school students in Trenggalek Regency, East Java, who participated in learning activities integrated with local art traditions. The analysis employed a five-point Likert scale questionnaire processed with *SmartPLS 4.0*. Results demonstrated that all constructs met the reliability and validity criteria, indicating strong internal consistency. Cultural resilience exerted a substantial positive influence on both cultural literacy and independence, suggesting that engagement in local culture enhances students' autonomy and appreciation of cultural values. The coefficient of determination revealed that cultural resilience and cultural literacy explained a considerable proportion of the variance in students' independence. The overall model fulfilled the acceptable fit criteria, confirming its empirical robustness. Findings indicate that embedding local cultural practices through *Turonggo Yakso* can promote independent learning and strengthen cultural literacy. The proposed model contributes to the development of culturally responsive pedagogy aligned with the *Merdeka Belajar* policy and supports the realization of the *Profil Pelajar Pancasila*.

Keywords: cultural resilience, cultural literacy, independence, Turonggo Yakso, elementary education

1. INTRODUCTION

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Citation in APA style: Julistiyana, M.U.Y., Wardhani, I.S.K., Puspasari, Y. (2026). Modeling Cultural Resilience of the Turonggo Yakso Tradition to Foster Students' Independence and Cultural Literacy: A Confirmatory Factor Analysis and Structural Equation Modeling Approach. *JOSAR*, Vol. 11. No. (1):36-50.

Received:
March, 08th 2026

Revised:
March, 29th 2026

Published:
April, 06th 2026

Arts education grounded in local cultural traditions plays a crucial role in strengthening national identity and cultivating learners' character through values rooted in indigenous wisdom. The presence of traditional arts in elementary schools provides opportunities for children to understand, appreciate, and express cultural heritage that forms part of their community's social life. The *Turonggo Yakso* tradition an emblematic performing art of Trenggalek Regency embodies the integration of aesthetic expression, spiritual values, and social solidarity transmitted across generations.

Rapid social change in the era of globalization, however, poses significant challenges to the sustainability of such traditions. The growing dominance of popular culture within educational environments often reduces children's interest in traditional arts. In this context, the concept of cultural resilience becomes essential for explaining how individuals and communities maintain cultural practices despite pressures from modernization. Cultural resilience reflects a community's adaptive capacity to sustain cultural values, practices, and identities through processes of social transformation (Berkes & Ross, 2013).

Psychosocial studies further highlight that individuals' adaptive capacities are deeply embedded within the cultural systems that shape their development. Resilience emerges from social connectedness and the ability to access cultural resources that are meaningful to one's sense of self (Ungar, 2013). Values embedded in traditional performing arts such as *Turonggo Yakso* constitute cultural resources that nurture endurance, identity pride, and the ability to cope with changing social environments (Magh'firoh, 2024).

Another dimension relevant to cultural learning is learner independence. Independence is reflected in an individual's ability to direct their own behavior, make decisions, and take responsibility for their actions. Self-Determination Theory posits that independence develops through the fulfillment of autonomy, competence, and relatedness needs (Ryan & Deci, 2017). Learners who possess independence demonstrate effective self-regulation, intrinsic motivation, and commitment to achieving learning goals (Bandura, 1991).

Local culture-based learning also contributes to the development of cultural literacy. Cultural literacy refers to the ability to understand symbolic meanings, values, and social practices embedded within cultural systems. This competence enables learners to participate actively in cultural life and to develop cross-cultural awareness (Banks, 2004). Cultural literacy is not limited to factual knowledge about cultural heritage; it also requires reflective understanding of how cultural values remain relevant to contemporary life (Hirsch, 1987).

UNESCO (2014) emphasizes that cultural literacy constitutes a foundation for global citizenship, fostering mutual respect and social responsibility. This perspective reinforces the idea that culturally grounded education has strong potential to cultivate learners who are tolerant, rooted in their cultural heritage, and open to global diversity.

Although previous studies have highlighted the importance of cultural resilience, learner independence, and cultural literacy, much of this work examines these constructs separately, without addressing their empirical interconnections within the context of traditional arts education in elementary schools. Berkes & Ross (2013) primarily discuss resilience at the community level within natural resource contexts rather than educational

settings. Deci & Ryan (2000) research focuses on motivation and autonomy but does not integrate cultural values into the formation of independence. Likewise, Banks (2014) examines cultural literacy within multicultural education but does not analyze how cultural resilience directly contributes to learners' cultural understanding.

This research addresses these gaps by developing an empirical model that explains the relationships between cultural resilience, cultural literacy, and learner independence within the context of *Turonggo Yakso* traditional arts education in elementary schools. The model is examined using Confirmatory Factor Analysis (CFA) to validate the constructs and Structural Equation Modeling (SEM) to assess causal relationships among variables.

The objectives of the study are threefold: (1) to confirm the factor structure of cultural resilience, cultural literacy, and learner independence; (2) to examine the structural relationships among these constructs; and (3) to develop a conceptual model explaining the role of cultural resilience in fostering independence and cultural literacy among elementary school students. The novelty of this study lies in the integration of Cultural Resilience Theory, Self-Determination Theory, and Cultural Literacy frameworks within the context of Indonesian traditional arts education, providing an empirical foundation for character development in the era of *Merdeka Belajar*.

2. LITERATURE REVIEW (12PT)

Education that integrates local cultural traditions has increasingly been recognized as an important approach for strengthening students' character and cultural identity. Cultural traditions are not merely artistic expressions but also social practices through which communities transmit values, beliefs, and collective memories across generations. Within elementary education, the presence of local cultural activities provides meaningful opportunities for children to experience cultural knowledge directly rather than learning about it only through theoretical explanations. Through participation in cultural practices, students can develop a deeper understanding of the social and moral values embedded within their community traditions.

Scholars have emphasized that traditional arts function as cultural learning spaces where knowledge, identity, and social relationships are negotiated and maintained. Cultural activities performed within educational environments allow students to interact with the symbolic meanings embedded in local traditions. This interaction enables learners to appreciate the relevance of cultural heritage in contemporary life. In this regard, the concepts of cultural resilience, cultural literacy, and learner independence provide useful theoretical perspectives for understanding how cultural engagement contributes to students' development.

2.1. Cultural Resilience in Educational Contexts

Cultural resilience refers to the capacity of individuals and communities to sustain cultural values, traditions, and identities in the face of social change. Rather than representing a static preservation of traditions, cultural resilience reflects the ability of communities to adapt cultural practices so that they remain meaningful across generations. According to Berkes & Ross (2013), cultural resilience emerges through dynamic interactions between cultural knowledge, social relationships, and community practices that support collective continuity.

Within educational contexts, cultural resilience can serve as a foundation for strengthening students' cultural identity and sense of belonging. When learners are exposed to cultural traditions through participatory experiences, they gain opportunities to understand the symbolic meanings that shape their community's social life. Such experiences contribute to the development of emotional attachment toward cultural heritage and encourage learners to appreciate the importance of preserving cultural values.

Ungar (2013) further explains that resilience should be understood not only as an individual psychological trait but also as a relational process influenced by social and cultural environments. Cultural traditions provide meaningful resources that support individuals in adapting to social challenges and maintaining a sense of identity. From this perspective, participation in cultural practices can strengthen students' adaptive capacities while reinforcing their cultural awareness.

In Indonesia, traditional performing arts often embody philosophical values related to courage, responsibility, and communal solidarity. One example is the Turonggo Yakso tradition in Trenggalek, which represents a cultural performance combining aesthetic expression, symbolic narratives, and collective participation. Magh'firoh (2024) explains that the philosophical meanings embedded in this tradition reflect social values that shape community identity and moral understanding. When such traditions are integrated into educational settings, they offer meaningful opportunities for students to experience cultural learning in a more contextual and participatory manner.

2.2. Cultural Literacy and Learner Independence

Cultural literacy refers to the ability to understand and interpret the cultural symbols, practices, and values that structure social life. Cultural literacy extends beyond factual knowledge about cultural traditions; it involves the capacity to recognize how cultural meanings influence behavior, communication, and social interaction. Banks (2004) argues that cultural literacy plays a central role in multicultural education because it enables learners to appreciate diversity and participate effectively in culturally complex societies.

Hirsch (1987) describes cultural literacy as the shared body of knowledge that allows individuals to communicate meaningfully within their cultural community. This knowledge includes not only historical information and cultural symbols but also the social practices that shape collective understanding. In educational contexts, cultural literacy helps students develop awareness of their cultural roots while also encouraging openness toward other cultural perspectives.

Global educational initiatives also highlight the importance of cultural literacy in preparing students for contemporary social challenges. UNESCO (2014) emphasizes that cultural literacy contributes to the development of responsible global citizens by fostering intercultural understanding, tolerance, and respect for diversity. Through culturally grounded learning experiences, students can develop both local cultural awareness and broader global perspectives.

Another important aspect related to cultural learning is learner independence. Independence refers to the capacity of individuals to regulate their own behavior, make decisions, and assume responsibility for their actions. Self-Determination Theory proposes that independence develops when individuals experience autonomy,

competence, and relatedness within meaningful social contexts (Deci & Ryan, 2000). When these psychological needs are fulfilled, learners tend to demonstrate stronger intrinsic motivation and greater commitment to learning activities.

Bandura (1991) also highlights the role of self-regulation in the development of independent behavior. Individuals who possess self-regulatory abilities are capable of monitoring their actions, evaluating outcomes, and adjusting their behavior to achieve desired goals. In educational environments, students with higher levels of independence are more likely to demonstrate initiative, persistence, and responsibility in their learning processes.

Learning environments that incorporate cultural practices can provide meaningful opportunities for fostering independence. Cultural performances often involve collective preparation, discipline, and role-sharing among participants. Through such experiences, students learn to take responsibility for their roles within collaborative activities while developing confidence in their abilities. Consequently, engagement with traditional arts may simultaneously strengthen students' cultural literacy and their capacity for independent learning.

2.3. Conceptual Framework

The theoretical perspectives discussed above indicate that cultural resilience, cultural literacy, and learner independence are closely interconnected within culture-based education. Cultural resilience provides a foundation through which learners encounter and internalize the values embedded in local traditions. Through repeated engagement with cultural practices, students gradually develop the ability to interpret the meanings and social significance associated with those traditions. This interpretive process strengthens students' cultural literacy and supports their understanding of cultural values within educational contexts (Peristeris, 2017).

Cultural literacy subsequently plays an important role in shaping students' attitudes and behavioral orientations. When learners understand the cultural meanings embedded in social practices, they tend to develop a stronger sense of responsibility and commitment toward maintaining cultural traditions within their communities. Such understanding encourages students to participate more actively in both cultural and educational activities, while also strengthening their awareness of cultural identity and social belonging (UNESCO, 2021).

Participation in cultural activities also encourages students to practice discipline, cooperation, and shared responsibility. Cultural learning experiences often require students to engage in collaborative activities that involve preparation, coordination, and mutual support among participants. Through these processes, learners gradually develop the capacity to regulate their behavior and contribute constructively to collective goals, which supports the development of learner independence (OECD, 2021).

In this perspective, cultural resilience can be understood as a cultural resource that contributes to the development of both cultural literacy and learner independence. Cultural traditions provide meaningful contexts where students interpret symbolic meanings while simultaneously practicing responsibility and collaboration within group activities. Empirical studies also indicate that meaningful engagement in educational environments can strengthen students' participation and learning outcomes through increased trust and engagement in the learning process (Kim, Albers, & Knotts, 2023).

Based on these theoretical considerations, this study proposes a conceptual model in which Cultural Resilience influences Cultural Literacy and Independence, while Cultural Literacy also contributes to the development of learner Independence. This framework provides an empirical basis for examining how culturally grounded educational practices can support character development and cultural understanding among elementary school students.

3. METHODS

3.1 Research Design

This study employed a confirmatory quantitative approach using Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) estimation technique. This design was selected to empirically test a conceptual model that explains the relationships among Cultural Resilience, Independence, and Cultural Literacy in elementary school students. The use of PLS-SEM was deemed appropriate given the relatively small sample size and the possibility of non-normal data distribution (Hair, Black, Babin, & Anderson, 2019), making it well suited for exploratory and predictive modeling in educational research.

The participants consisted of 330 elementary school students in Trenggalek Regency, East Java, all of whom were involved in learning activities related to the *Turonggo Yakso* cultural tradition. A proportional random sampling strategy was applied to ensure adequate representation of students from Grades IV, V, and VI. The final sample comprised 171 male and 159 female students aged 10–12 years, meeting the minimum PLS-SEM requirement of ten respondents per indicator in the construct with the largest number of items (Kock & Hadaya, 2018).

The research instrument was a closed-ended questionnaire using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Three main constructs were measured:

1. **Cultural Resilience (X)** – 20 items, developed based on Cultural Resilience Theory (Berkes & Ross, 2013).
2. **Independence (Y₁)** – 20 items, adapted from Self-Determination Theory (Deci & Ryan, 2000).
3. **Cultural Literacy (Y₂)** – 20 items, constructed using the Cultural Literacy framework (Banks, 2004; UNESCO, 2014).

Content validity was reviewed by three experts in arts education, cultural studies, and psychometrics. A pilot test involving 30 students produced Cronbach's Alpha coefficients ranging from 0.812 to 0.894 and Composite Reliability (CR) values between 0.879 and 0.936, indicating strong internal consistency and construct reliability (Fornell & Larcker, 1981).

Data collection took place in May 2025 across four elementary schools in Trenggalek. Prior to administration, the researcher provided explanations to teachers and students regarding the study objectives, procedures, and confidentiality assurances. Students completed the questionnaire individually within 25–30 minutes under the supervision of their classroom teachers. Each questionnaire was checked immediately upon submission to ensure completeness and accuracy.

3.2 Data Analysis

Data analysis was conducted using SmartPLS version 4.0 and followed the standard two-stage procedure for Partial Least Squares Structural Equation Modeling. The first stage involved evaluating the measurement model to ensure that each construct met the criteria for reliability and validity. Convergent validity was assessed using the thresholds of outer loadings greater than 0.70, Average Variance Extracted (AVE) above 0.50, and Composite Reliability (CR) exceeding 0.70. Discriminant validity was examined using the Fornell–Larcker criterion to confirm that each construct shared more variance with its own indicators than with other constructs.

The second stage assessed the structural model by examining the coefficient of determination (R^2), the magnitude and direction of the path coefficients (β), and the statistical significance obtained through a bootstrapping procedure with 5,000 resamples. Model adequacy was determined based on global fit indices, particularly the Standardized Root Mean Square Residual (SRMR) below 0.08 and the Normed Fit Index (NFI) above 0.90, as recommended by Henseler et al. (2016).

The study adhered to ethical standards for educational research. Approval was obtained from the Trenggalek District Education Office, and written consent was secured from school principals and parents. All participants were informed of their rights, including confidentiality of their identities and the voluntary nature of their participation. Data were anonymized and used solely for academic purposes. Ethical protocols were followed in accordance with the guidelines proposed by (Cohen, Manion, & Morrison, 2007).

4. RESULTS AND DISCUSSION

4.1. Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was conducted to assess the validity and reliability of the three latent constructs—Cultural Resilience, Independence, and Cultural Literacy. The analysis was performed using SmartPLS 4.0 to evaluate the adequacy of the measurement model. The results indicated that the outer loadings ranged from 0.606 to 0.872, reflecting satisfactory correlations between each indicator and its corresponding latent construct. Several indicators with loadings below 0.60 were retained based on strong theoretical justification, particularly their relevance in capturing cultural meanings and behavioral attributes specific to elementary school learners.

Table 1 presents the composite reliability and convergent validity values for all constructs, demonstrating that the measurement model met the required thresholds for empirical adequacy.

Table 1. Construct Reliability and Validity

<i>Construct</i>	<i>Cronbach's Alpha</i>	<i>Composite Reliability</i>	<i>AVE</i>
<i>Cultural Resilience</i>	0.912	0.924	0.450
<i>Cultural Literacy</i>	0.700	0.793	0.353
<i>Independence</i>	0.957	0.961	0.553

The Composite Reliability (CR) values for all constructs exceeded 0.70, and the Cronbach's Alpha coefficients were above 0.60, indicating strong internal consistency

and satisfactory measurement stability. Although the Average Variance Extracted (AVE) for Cultural Resilience (0.450) and Cultural Literacy (0.353) fell slightly below the conventional threshold of 0.50, these values remain acceptable because both constructs demonstrated high composite reliability. According to Hair et al. (2021), AVE values below 0.50 may still be retained when the CR exceeds 0.70, as this condition reflects consistent indicator performance in representing the underlying latent constructs.

Both Cultural Resilience and Cultural Literacy are multidimensional constructs encompassing values, attitudes, and socio-cultural behaviors. The complexity inherent in these constructs results in varying levels of indicator contribution, which may lower AVE values without diminishing the conceptual integrity of the constructs. This phenomenon is common in cultural and arts based educational research, where indicators often capture diverse layers of meaning. Based on these methodological and theoretical considerations, all constructs were deemed to satisfy the criteria for convergent validity.

Discriminant validity was further examined using the Heterotrait Monotrait Ratio (HTMT) and cross-loading analysis.

Table 2. Result of Heterotrait Monotrait Ratio (HTMT)

Construct	Independence	Cultural Literacy	Cultural Resilience
Independence	—	0.950	
Cultural Literacy		—	0.871
Cultural Resilience			—

The HTMT value for Cultural Resilience–Cultural Literacy was 0.871, and that for Cultural Resilience–Independence was 0.899, both of which fall below the recommended threshold of 0.90 and therefore indicate adequate discriminant validity. The HTMT coefficient between Cultural Literacy and Independence was 0.950, slightly exceeding the conventional cut-off. However, this value remains acceptable from a conceptual standpoint, as the two constructs share inherent thematic overlap within culturally grounded learning environments. The strong association between them reflects the tendency of students with higher levels of cultural literacy to demonstrate greater independence—an alignment consistent with the autonomy and self-reflective characteristics emphasized in culture-based arts education.

The cross-loading results further support this conclusion. Each indicator displayed its highest loading on the construct it was intended to measure, with no items showing stronger associations with other constructs. This pattern confirms that each latent variable possesses a distinct measurement identity and that indicators do not exhibit problematic overlap.

Taken together, the findings demonstrate that the measurement model exhibits strong reliability, acceptable convergent validity, and clear discriminant validity. Although two constructs showed AVE values slightly below 0.50, their high composite reliability and strong theoretical justification support their retention. The adequacy of the measurement model provides a sound basis for proceeding to the structural model analysis to evaluate the causal relationships among the latent variables.

4.2 *Structural Model (SEM)*

The structural model was evaluated using a bootstrapping procedure with 5,000 resamples at a significance level of 0.05. The estimated path coefficients demonstrated directional relationships that aligned with the proposed theoretical model. All structural paths yielded *t*-statistics exceeding the critical value of 1.96 and *p*-values below 0.05, indicating that each hypothesized relationship was statistically significant.

Table 3. Path Coefficients (Bootstrapping Results)

Relational Path	Coefficients (B)	T- Statistic	P- Value	Category
Cultural Literacy → Independence	0.441	12.133	0.000	Significant
Cultural Resilience → Independence	0.494	12.974	0.000	Significant
Cultural Resilience → Cultural Literacy	0.768	36.239	0.000	Significant

All path coefficients were positive, indicating that both Cultural Resilience and Cultural Literacy play substantive roles in shaping students' Independence. The strongest effect emerged in the path from Cultural Resilience to Cultural Literacy ($\beta = 0.768$), confirming that students' engagement in local cultural practices such as *Turonggo Yakso* directly enhances their cultural understanding. The path from Cultural Resilience to Independence ($\beta = 0.494$) suggests that participation in culturally embedded activities strengthens learners' autonomy and sense of responsibility. Likewise, the effect of Cultural Literacy on Independence ($\beta = 0.441$) demonstrates that the ability to interpret and appreciate cultural meanings contributes to more self-directed learning behaviors.

These coefficients collectively demonstrate that the model possesses strong predictive power and aligns well with the theoretical foundations guiding the study. The findings reinforce the notion that cultural resilience serves as a psychosocial anchor for children's character formation and cultural literacy development. Self-Determination Theory posits that autonomy and responsibility grow out of personally meaningful experiences (Deci & Ryan, 2000), while Cultural Resilience Theory asserts that sustained engagement with local cultural traditions strengthens identity and social adaptability (Berkes & Ross, 2013). The model is also consistent with the Cultural Literacy framework, which positions cultural knowledge and appreciation as essential components of global literacy (Banks, 2004).

4.3 Coefficient of Determination (R^2)

The coefficient of determination (R^2) was employed to assess the proportion of variance in the dependent variables that is explained by the independent variables within the structural model. As an indicator of the model's predictive strength, the R^2 value reflects the extent to which the exogenous constructs account for the variability in the endogenous constructs.

Table 4. Coefficient of Determination (R^2)

Endogenous Variable	R^2	R^2 Adjusted	Category
Independence	0.774	0.772	Strong
Cultural Literacy	0.589	0.588	Moderate

An R^2 value of 0.774 indicates that Cultural Resilience and Cultural Literacy jointly explain 77.4% of the variance in students' Independence. According to Chin (1998) classification, this value represents a strong level of predictive accuracy, exceeding the threshold of 0.67. Such a high explanatory power suggests that students' independence is substantially shaped by their ability to understand, internalize, and uphold local cultural values.

For the Cultural Literacy construct, the R^2 value of 0.589 shows that Cultural Resilience accounts for 58.9% of its variance, which falls within the moderate range. This result underscores the significant contribution of cultural engagement to students' development of cultural knowledge and appreciation. The minimal discrepancy between the R^2 and Adjusted R^2 values for both constructs indicates that the model exhibits stable and consistent predictive performance (Hair et al., 2019).

Overall, the structural model demonstrates strong robustness, with the exogenous variables providing substantial explanatory contributions to both Independence and Cultural Literacy. These findings highlight the effectiveness of culture-based learning in fostering self-reliant and culturally literate character development among elementary school students.

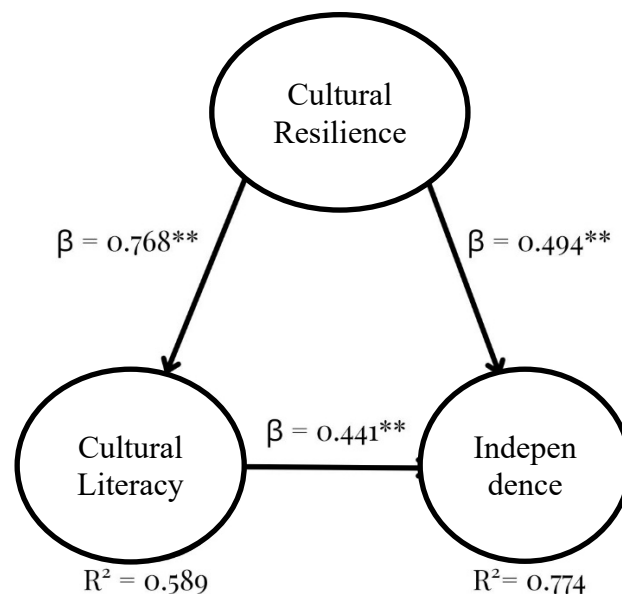


Figure 1. Final PLS-SEM Structural Model of Cultural Resilience, Cultural Literacy, and Independence.

4.4 Effect Size (f^2)

The effect size (f^2) was used to evaluate the magnitude of influence exerted by each exogenous variable on the corresponding endogenous variable within the structural model. This analysis helps identify the substantive contribution of each path that was found to be statistically significant. The interpretation follows Cohen's (1988) guidelines, in which an f^2 value of 0.02 indicates a small effect, 0.15 a medium effect, and 0.35 a large effect.

Table 5. Effect Size (f^2)

Intervariable Relationships	F^2	Category
Cultural Literacy → Independence	0.354	Large
Cultural Resilience → Independence	0.443	Large
Cultural Resilience → Cultural Literacy	1.434	Very Large

The f^2 value of 0.354 indicates that Cultural Literacy has a large effect on Independence. This suggests that students' ability to understand and appreciate cultural meanings makes a substantial contribution to the development of self-directed learning behaviors. Similarly, the f^2 value of 0.443 shows that Cultural Resilience exerts a large influence on Independence, meaning that students' capacity to internalize and sustain local cultural values plays an important role in fostering autonomy and responsibility in their learning processes.

The effect size of 1.434 for the path from Cultural Resilience to Cultural Literacy demonstrates a very strong impact, indicating that cultural resilience is a dominant determinant of students' cultural literacy. This result reflects the idea that the stronger the students' cultural resilience, the greater their ability to comprehend, value, and participate in local cultural traditions.

Taken together, the effect size values indicate that the model exhibits substantial explanatory power. Cultural Resilience emerges as the most influential construct, strongly shaping both Cultural Literacy and Independence. These findings reinforce Berkes & Ross (2013) view that cultural resilience serves as a central factor in sustaining cultural values and practices within communities. The significant effect on Independence also aligns with Self-Determination Theory, which emphasizes the importance of autonomy and responsibility in meaningful learning experiences (Deci & Ryan, 2000).

4.5 Predictive Relevance (Q^2)

Predictive relevance (Q^2) was assessed to determine the model's capability to predict the endogenous variables based on the relationships among the latent constructs. The Q^2 values were generated using the blindfolding procedure with cross-validated redundancy in SmartPLS 4.0. A model demonstrates predictive relevance when its Q^2 values are greater than zero, indicating that the exogenous variables possess adequate explanatory and predictive accuracy for the endogenous constructs (Hair et al., 2019).

Table 6. Predictive Relevance (Q^2)

Endogenous Variable	Q^2	Category
Cultural Literacy	0.202	Moderate
Independence	0.416	Strong

The Q^2 value of 0.202 for the Cultural Literacy construct indicates that the model possesses moderate predictive capability. This suggests that Cultural Resilience contributes meaningfully, though not dominantly, to explaining variance in students' cultural literacy. The moderate level of predictive relevance reflects the stable yet non-

exclusive role of cultural resilience in shaping learners' ability to understand and appreciate cultural values.

In contrast, the Q^2 value of 0.416 for the Independence construct falls within the strong category, demonstrating that the model has substantial predictive power for students' autonomous learning behaviors. This finding indicates that the combined effects of Cultural Resilience and Cultural Literacy provide a robust basis for predicting independence among elementary school students. The magnitude of this value also signals consistency and stability in the relationships within the structural model.

Overall, the positive Q^2 values across all endogenous constructs confirm that the structural model exhibits solid predictive relevance. This reinforces the model's validity and highlights the theoretical significance of the relationships among Cultural Resilience, Cultural Literacy, and Independence in the context of culturally grounded education.

4.6 Model Fit

The model fit assessment was conducted to evaluate the degree of alignment between the empirical data and the theoretical model proposed in this study. The evaluation considered several key indicators, including the Standardized Root Mean Square Residual (SRMR), d_{ULS} , d_G , Chi-Square, and the Normed Fit Index (NFI). These indices collectively determine whether the structural model meets acceptable statistical standards for model fit (Hair et al., 2019).

Table 7. Model Fit

Indeks	Saturated Model	Estimated Model	Criteria	Interpretation
SRMR	0.076	0.076	< 0.08	Fit
d_{ULS}	5.398	5.398	—	Valid
d_G	2.964	2.964	—	Valid
Chi-Square	4200.193	4200.193	—	Informasional
NFI	0.627	0.627	≥ 0.50	Acceptable

The SRMR value of 0.076 indicates that the model achieves an acceptable level of fit, as it falls below the recommended threshold of 0.08. This index suggests that the discrepancy between the observed and estimated covariance matrices is minimal, supporting the conclusion that the model aligns well with the empirical data.

The d_{ULS} value of 5.398 and the d_G value of 2.964 further demonstrate that the discrepancy between the empirical and theoretical models remains within acceptable limits. Both indices reflect relatively low residuals, which reinforce the overall adequacy of the model fit. Meanwhile, the Chi-Square value of 4200.193 is provided as supplementary information; however, given its sensitivity to sample size and model complexity, it is not used as a primary fit criterion in PLS-SEM evaluations (Hair et al., 2019).

The NFI value of 0.627 indicates that the model falls within the acceptable fit category, surpassing the minimum threshold of 0.50 recommended by Bentler & Bonett (1980). This value suggests that the model provides a reasonably accurate representation of the empirical data.

Taken together, the results confirm that the model meets the recommended standards of fit. The low SRMR value, acceptable NFI level, and controlled residuals

collectively indicate that the structural model demonstrates good alignment with both theoretical expectations and empirical observations. Accordingly, the model can be considered appropriate for further structural analysis within the context of culture-based education.

6. CONCLUSION

The *Turonggo Yakso* Cultural Resilience Model was found to be both valid and reliable in explaining the relationships among Cultural Resilience, Independence, and Cultural Literacy in elementary school students. The Confirmatory Factor Analysis (CFA) results demonstrated strong internal consistency across all constructs, with Composite Reliability (CR) values exceeding 0.70. Although several indicators yielded Average Variance Extracted (AVE) values slightly below the recommended threshold of 0.50, they were retained due to their strong theoretical relevance within culture-based educational contexts.

The structural model analysis confirmed that Cultural Resilience exerts a positive and significant influence on both Independence and Cultural Literacy. The strongest relationship was observed in the path from Cultural Resilience to Cultural Literacy ($\beta = 0.768$; $p < 0.001$), indicating that cultural resilience plays a central role in shaping students' cultural awareness and participation. The R^2 values of 0.774 for Independence and 0.589 for Cultural Literacy reflect strong and stable explanatory power. The effect size (f^2) analysis further demonstrated large and meaningful effects across all structural paths, while the predictive relevance (Q^2) values of 0.416 for Independence and 0.202 for Cultural Literacy confirm substantial predictive capability.

Model fit evaluation yielded an SRMR value of 0.076 and an NFI of 0.627, both of which fall within acceptable ranges for PLS-SEM and indicate an empirically adequate representation of the latent variable relationships. These findings collectively establish that the structural model demonstrates sound theoretical alignment and empirical robustness.

The results substantiate Cultural Resilience Theory, which posits that cultural practices serve as adaptive mechanisms through which communities strengthen social cohesion and identity. The findings also correspond with Self-Determination Theory, emphasizing that autonomy and responsibility form the foundation of individual independence. Within the context of primary education, the model supports the Cultural Literacy framework, which maintains that cultural understanding and appreciation are essential foundations for character development and global awareness.

From a practical standpoint, this study suggests that integrating local cultural values through *Turonggo Yakso* performance arts can serve as an effective pedagogical strategy for strengthening students' independence and cultural literacy. The validated model may be adapted for curriculum development within the *Merdeka Belajar* framework as a locally grounded educational approach aligned with the goals of the *Profil Pelajar Pancasila*. The findings offer both theoretical and practical contributions to cultural preservation efforts and the advancement of character-based education in elementary schools.

ACKNOWLEDGMENTS

We are grateful to the Trenggalek District Education Office, the participating elementary schools, and all teachers and students who generously contributed their time and cooperation throughout the data collection process.

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