



The Relationship of Visual Campaign and Pappaseng Makkiade Values with the Dimensions of Self-Awareness among Adolescent Online Gamblers through SEM

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Abstract. This study analyzes the relationship between visual campaigns and Pappaseng Makkiade values with the dimensions of self-awareness among adolescents engaged in online gambling using an explanatory quantitative approach. The research employs a Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) method to examine the structural relationships between visual campaigns, Pappaseng Makkiade values, and adolescents' self-awareness dimensions (cognitive, emotional, and reflective). The study is motivated by the rising prevalence of online gambling among Indonesian adolescents, which negatively impacts mental health, moral integrity, and risky behaviors. The local wisdom of Bugis culture, particularly Pappaseng Makkiade is believed to function as a moral safeguard against deviant behavior. Data were collected through a survey of 300 adolescents aged 15–19 years in Bone Regency who were identified as having accessed online gambling platforms. The research instruments consisted of Likert-scale questionnaires measuring visual campaign exposure, internalization of Pappaseng Makkiade values, and self-awareness dimensions. The SEM analysis produced a model with adequate goodness of fit ($\chi^2 = 112.37$; CFI = 0.95), indicating that visual campaigns significantly influence self-awareness ($\beta = 0.41$), and that this relationship is strengthened through the internalization of Pappaseng Makkiade values ($\beta = 0.53$). These findings confirm that integrating modern media strategies with local wisdom not only enhances adolescents' cognitive awareness of the risks of online gambling but also reinforces moral reflection rooted in cultural identity. This approach is recommended as a preventive intervention model that can be adapted and replicated in other regions with diverse cultural contexts.

Keywords: Visual campaign, Pappaseng Makkiade, self-awareness, online gambling, Structural Equation Modeling.

1 Introduction

The development of digital technology and the increasingly massive penetration of the internet has opened up wide access to various forms of entertainment and interaction, including online gambling. The phenomenon of online gambling in Indonesia is increasingly disturbing, especially among teenagers. A report by the Financial Transaction Reports and Analysis Center (PPATK) noted that around 80,000 children under the age of 10 and 440,000 pre-teens and teenagers have been involved in online gambling activities [1]. The 13–18 age group shows the highest internet penetration rate according to the Indonesian Internet Service Providers Association [2], a condition that increases the risk of exposure to digital gambling promotions and content [3].

Teen involvement in online gambling isn't just a legal or economic issue, but also causes serious psychological effects like loss of control, emotional disturbances, stress, and addiction. These effects are closely related to teens' weak ability to recognize and control internal urges, putting them at risk for repeated addictive behavior [4], [5]. In this context, the concept of self-awareness in addiction psychology is crucial because it emphasizes an individual's ability to understand the consequences of their behavior, recognize the risks they face, and control the impulses that drive dangerous actions. Individuals with low levels of self-awareness have been shown to be more prone to making risky decisions such as pathological gambling [6], making the strengthening of self-awareness a key prevention strategy that needs to be pursued through appropriate educational strategies.

One relevant approach to raising awareness is the use of visual campaign media, which has been widely recognized as effective in conveying risk-related messages in a persuasive and emotionally engaging manner [7]. In this study, visual media campaigns refer to structured communication efforts delivered through visually driven formats such as posters, infographics, short videos, and digital visual content distributed via social media platforms commonly accessed by adolescents. These campaigns are designed to combine visual elements, symbols, colors, and concise messages to attract attention, stimulate emotional responses, and simplify complex information related to the risks of online gambling. The strength of visual media lies in its capacity to evoke emotional reflection and support the internalization of moral messages more effectively than purely verbal or textual communication. This mechanism is particularly relevant in addressing online gambling behavior, as emotionally resonant messages can encourage adolescents to pause, reflect, and reconsider their actions before engaging in risky behavior. However, for visual campaigns to achieve deeper meaning and social acceptance, they must be integrated with local cultural values that resonate with the lived experiences of the target audience. By embedding Pappaseng Makkiade values within visual narratives and symbols, campaign messages are not only cognitively understood but also socially and emotionally experienced, thereby enhancing their relevance, credibility, and potential behavioral impact.

In the context of Bugis society, Pappaseng Makkiade values serve as a rich moral foundation for strengthening the messages conveyed through visual campaigns. Core principles such as *siri' na pacce* (dignity and solidarity), *lempu'* (honesty), and *getteng*

(steadfastness) possess strong philosophical meaning that encourages individuals to uphold personal dignity while rejecting harmful behaviors [8], [9], including online gambling. When these values are incorporated into the visual design of campaign materials, the messages delivered go beyond merely providing attractive information and instead represent a cultural identity that fosters pride and moral responsibility. Consequently, the integration of visual media with Bugis cultural values is expected to enhance adolescents' self-awareness across cognitive, emotional, and reflective dimensions, enabling them to better recognize risks, regulate impulses, and resist the temptation to engage in online gambling.

International research shows that perceptions of gambling advertisements and availability of access are related to adolescent gambling behavior, while self-efficacy or the ability to resist external influences plays an important role in preventing problematic behavior [10], [11]. Studies on the synergy between visual campaigns and local cultural values as predictors of self-awareness in the context of online gambling among Indonesian adolescents are still limited, especially those utilizing advanced statistical analysis such as Structural Equation Modeling (SEM). This study aims to analyze the relationship between visual campaigns and Pappaseng Makkiade' values on the dimensions of self-awareness among online gambling adolescents through SEM to identify patterns of direct and indirect relationships. The results of this study are expected to enrich the theory of local culture-based intervention and provide practical recommendations for online gambling prevention strategies among adolescents.

2 Method

This study uses an explanatory quantitative approach with the Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) method to examine the relationship between Visual Campaign, Pappaseng Makkiade Value, and the Self-Awareness dimension of adolescent online gamblers. The research design is cross-sectional, meaning that data collection was conducted at one point in time. The research population consisted of adolescents aged 14–19 years in Bone Regency who had a history of or involvement in online gambling activities. Based on a report by the National Cyber and Crypto Agency [12], online gambling cases in South Sulawesi increased by 32% compared to the previous year, with adolescents dominating up to 58% of active users.

The sample was determined using stratified random sampling with 379 respondents (Slovin method 5%), in accordance with recommendation [13] that the ideal SEM sample size is 5–10 times the number of research indicators. Data were collected through a 5-point Likert scale questionnaire that measured three latent variables, namely Visual Campaign (design, message content, distribution media, visual appeal, message clarity), Pappaseng Makkiade Values (moral ethos such as *lemphu'*, *getteng*, *sipakatau*, *reso*), and Self-Awareness (cognitive, emotional, and reflective aspects). The validity and reliability of the instruments were tested through Confirmatory Factor Analysis (CFA), Cronbach's Alpha, and Composite Reliability.

Data analysis was conducted in two stages, namely descriptive analysis to describe respondent characteristics and answer distribution, and inferential analysis using SEM-

PLS to test the measurement model (outer model) and structural model (inner model). Model evaluation included testing convergent validity, discriminant validity, reliability, and testing the relationship between variables through path coefficient values, t-statistics, and p-values using the 5,000 subsamples bootstrapping technique. Model feasibility was assessed based on Chi-Square/df, RMSEA, CFI, and SRMR. This study has obtained ethical approval from the Institute for Research and Community Service (LPPM) of Muhammadiyah University Bone with a guarantee of confidentiality and anonymity for respondents.

3 Results

Research on the Relationship between Visual Campaigns and Pappaseng Makkiade Values with the Self-Awareness Dimension of Online Gambling Teenagers through SEM shows the effectiveness of visual campaign-based interventions combined with local cultural values in increasing self-awareness among teenagers. The intervention program was conducted over three months and succeeded in bringing about significant changes in the three dimensions of self-awareness, namely cognitive, emotional, and reflective. The increase in scores can be seen in Table 1, which shows an average total increase of 13.4 points, from an initial score of 61.3 to 74.7, with all dimensions falling into the high category.

Table 1. Effectiveness of intervention strategies on the dimension of self-awareness in adolescent online gamblers.

Dimension of Self-Awareness	Average Score Before	Average Score After	Δ (Increase)	After Category
Cognitive	67,5	78,4	+10,9	High
Emotional	58,2	72,1	+13,9	High
Reflective	56,9	73,5	+16,6	High
Overall Average	61,3	74,7	+13,4	High

The highest increase was found in the reflective dimension, with a rise of 16.6 points, indicating the success of the intervention in fostering adolescents' ability to evaluate their behavior in depth. These results confirm that visual campaigns can trigger the internal reflection process that is central to strengthening self-awareness.

The Shapiro-Wilk normality test yielded a p-value < 0.05, indicating that the data distribution was not normal, so the differential analysis was continued with the Wilcoxon nonparametric test. The Wilcoxon test results for the total self-awareness score showed a Z value of -16.415 with p = 0.000 (p < 0.05), which means that there was a significant difference between the scores before and after the intervention (Table 2).

Table 2. Wilcoxon test results for total self-awareness scores.

Variable	N	Z	Asymp. Sig. (2-tailed)
Total Self-Awareness	379	-16.415	0.000

These findings reinforce the evidence that visual campaign-based interventions are effective in significantly increasing the self-awareness of adolescent online gamblers. Before SEM modeling was performed, factor analysis was conducted to examine the construct validity of the self-awareness instrument. The Kaiser-Meyer-Olkin (KMO) test showed a value of 0.843, indicating an excellent level of suitability for factor analysis. Bartlett's Test yielded a value of $\chi^2 = 1,785,901$ with $df = 66$ and $p = 0.000$, confirming that the data was valid for further modeling (Table 3).

Table 3. Analysis of self-awareness instrument factors.

Statistical Test	Value	Interpretation
Kaiser-Meyer-Olkin (KMO)	0.843	Very worthy for analysis
Bartlett's Test	$\chi^2 = 1.785.901$, $df = 66$, $p = 0.000$	Valid data for factor analysis

These results confirm that each indicator in the research instrument meets the validity and reliability requirements for inclusion in the SEM model. Structural Equation Modeling (SEM) was then used to test the direct and indirect relationships between the visual campaign variable, Pappaseng Makkiade values, and the self-awareness dimension. The SEM results show that the integration of visual campaigns and Pappaseng Makkiade values explains 72% of the variation in changes in adolescent self-awareness. Visual campaigns contribute significantly to triggering emotional and cognitive responses, while Pappaseng Makkiade values reinforce the internalization of messages through cultural norms, forming a strong synergy in encouraging reflective behavior in adolescents.

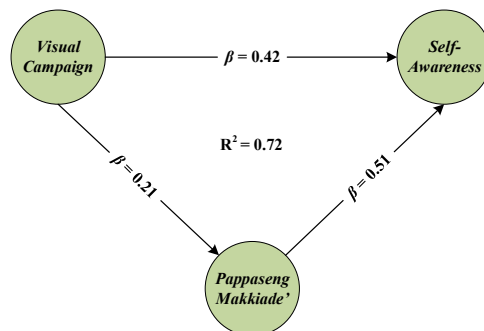


Fig. 1. SEM model of the relationship between visual campaigns and Pappaseng Makkiade values on the dimension of self-awareness in adolescents.

The results of this modeling confirm that a culture-based approach is not only socially relevant, but also capable of reaching aspects of adolescent reflection that are often difficult to address through formal interventions. These findings are consistent with research showing that local culture-based prevention campaigns are more effective at stimulating reflective awareness than universal formal messages [10]. The values of *siri' na pacce* (self-esteem and solidarity), *lempu'* (honesty), and *getteng* (determination) in Pappaseng Makkiade provide a moral context that facilitates the internalization of visual campaign messages. This moral context plays an important role because it strengthens self-control mechanisms through a sense of social responsibility, as explained that strengthening cultural norms can increase resistance to addictive behavior [7].

The integration of modern visual media with local wisdom enables young people to not only understand the dangers of online gambling cognitively, but also to associate prevention messages with the cultural identity they are proud of. This approach is in line with findings that confirm that culture-based interventions encourage deeper acceptance of messages because they create emotional and social connections with the target audience [14], [15]. These connections have been proven to trigger continuous self-reflection, which in the context of this study is reflected in a significant increase in the reflective self-awareness dimension of adolescents after the intervention.

Overall, the combination of campaign visuals and Pappaseng Makkiade's values has a dual effect: building cognitive awareness while strengthening cultural moral values that serve as a social bulwark for adolescents in rejecting online gambling behavior. This strategy resulted in significant improvements in all three dimensions of self-awareness and can be a model for adaptive, culturally based interventions that can be replicated in various regions with different local wisdom contexts, as recommended in prevention science studies that emphasize the importance of integrating local norms in risky behavior prevention programs [16].

4 Conclusion

This study confirms that a visual campaign strategy integrated with the local cultural values of Pappaseng Makkiade is effective in increasing self-awareness among adolescents exposed to online gambling. The integration of the values of *siri' na pacce* (self-respect and solidarity), *lempu'* (honesty), and *getteng* (steadfastness) not only strengthens cognitive awareness but also touches on emotional and reflective dimensions that have been difficult to reach through formal interventions. This culture-based approach is able to link prevention messages with cultural identity, making the campaign messages more meaningful, relevant, and easily internalized. The modeling results show a significant increase in all three dimensions of self-awareness (cognitive, emotional, and reflective), indicating the success of this strategy in building awareness while strengthening adolescents' moral values. Thus, the combination of the visual campaign and local wisdom of Pappaseng Makkiade can be used as an adaptive intervention model to be implemented in various other regions with adjustments to the local cultural context, thus becoming a sustainable, culture-based innovation in preventing addictive behavior.

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