

INTISARI

Warna merupakan salah satu elemen penting dalam identitas visual *brand* yang berperan dalam membentuk persepsi konsumen. Selain dipengaruhi oleh teori psikologi warna, persepsi terhadap warna juga dapat terbentuk melalui asosiasi memori *brand* yang tersimpan dalam ingatan akibat pengalaman dan paparan berulang. Namun, sebagian besar penelitian sebelumnya masih berfokus pada pengukuran subjektif dan belum menjelaskan mekanisme kognitif yang mendasari proses tersebut. Penelitian ini bertujuan untuk menganalisis pengaruh asosiasi memori *brand* terhadap persepsi warna serta merepresentasikan proses kognitif yang terjadi menggunakan arsitektur kognitif *Adaptive Control of Thought-Rational* (ACT-R).

Penelitian menggunakan metode eksperimen dengan melibatkan 29 responden. Stimulus terdiri atas jenis kata berupa kata umum, *brand* lokal, dan *brand* internasional yang disajikan secara acak. Data yang dikumpulkan meliputi *congruency* jawaban, *response time*, *eye movement*, dan hasil *post-experimental survey*. Analisis data dilakukan menggunakan uji *Wilcoxon Signed-Rank Test*, *Friedman Test*, uji *post-hoc*, analisis deskriptif, serta simulasi ACT-R menggunakan *pyACT-R*.

Hasil penelitian menunjukkan bahwa sebagian besar kata umum memiliki asosiasi warna yang sesuai dengan teori psikologi warna, meskipun beberapa kata menunjukkan penyimpangan akibat perbedaan pengalaman maupun konteks individu. Jenis kata *brand* menghasilkan *response time* yang lebih cepat dibandingkan jenis kata kata umum, dengan perbedaan paling kecil antara *brand* lokal dan *brand* internasional. Analisis pergeseran persepsi warna menunjukkan bahwa 68,75% *brand* berada pada kategori *ambiguous*, sedangkan sebagian *brand* menunjukkan pergeseran persepsi yang lebih mengikuti identitas visual logo dibandingkan prediksi teori psikologi warna. Simulasi ACT-R berhasil merepresentasikan dua mekanisme kognitif, yaitu *direct match* dan *verification*, yang menghasilkan distribusi *response time* serupa dengan data empiris. Temuan ini menunjukkan bahwa asosiasi memori *brand* berperan dalam mempercepat proses *retrieval* informasi sehingga pengambilan keputusan menjadi lebih cepat dibandingkan ketika responden memproses asosiasi warna berdasarkan konsep umum.

Kata kunci: asosiasi memori *brand*, ACT-R, psikologi warna.

ABSTRACT

Color is one of the essential elements of a brand's visual identity that plays a significant role in shaping consumer perception. In addition to being influenced by color psychology, color perception can also be formed through brand memory associations stored in memory as a result of repeated experiences and exposure. However, most previous studies have primarily relied on subjective measurements and have not adequately explained the cognitive mechanisms underlying this process. Therefore, this study aims to analyze the influence of brand memory associations on color perception and to represent the underlying cognitive processes using the Adaptive Control of Thought-Rational (ACT-R) cognitive architecture.

This study employed an experimental method involving 29 participants. The stimuli consisted of common words, local brands, and international brands presented in a randomized order. The collected data included response accuracy, response time, eye movement, and post-experimental survey results. Data were analyzed using the Wilcoxon Signed-Rank Test, Friedman Test, post-hoc analysis, descriptive analysis, and ACT-R simulation implemented with pyACT-R.

The results indicate that most common words were associated with colors consistent with color psychology theory, although several words showed deviations due to differences in individual experiences and contexts. Brand-related stimuli produced faster response times than common-word stimuli, with the smallest difference observed between local and international brands. The analysis of color perception shifts revealed that 68.75% of the brands were classified as ambiguous, while several brands exhibited perceptual shifts that aligned more closely with their logo's visual identity than with predictions based on color psychology theory. Furthermore, the ACT-R simulation successfully represented two cognitive mechanisms, namely direct match and verification, producing response time distributions comparable to the empirical data. These findings suggest that brand memory associations facilitate faster information retrieval, enabling quicker decision-making than when participants process color associations based solely on general semantic concepts.

Keywords: brand memory association; ACT-R; color psychology