

Color and Motif Adjustment Strategies of Batik Cap in Overcoming Consumer Ambiguity for Batik MSME Sales Improvement in Jakarta

(Strategi Penyesuaian Warna dan Motif Batik Cap dalam Mengatasi Ambiguitas Konsumen untuk Peningkatan Penjualan UMKM Batik di Jakarta)

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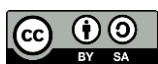
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Abstract:

Objective: This study aims to examine color and motif adjustment strategies of *batik cap* in reducing consumer ambiguity to increase batik MSME sales in Jakarta.

Methodology: A A descriptive qualitative approach was employed with thematic analysis of 8 informants consisting of 2 *batik cap* MSME practitioners, 5 multigenerational consumers (ages 22–29 and 58–65), and 1 Visual Communication Design academic. Data were collected through in-depth interviews, field observation, and documentation studies.

Findings: The research identified three dimensions of consumer ambiguity: perceptual ambiguity (difficulty distinguishing stamped batik from digital printing), referential ambiguity (limited understanding of traditional motif meanings among younger consumers), and evaluative ambiguity (unclear cultural value due to inconsistent positioning). Successful MSMEs addressed these issues through segmented visual design, cultural bridging based on adaptation rather than adoption, and transparent production processes as quality signals. These strategies increased purchase conversion by 35–100%, expanded the consumer segment aged 20–45, and strengthened long-term trust with repurchase rates reaching 38%.

Keyword: Consumer Ambiguity, *Batik Cap*, Color And Motif Adjustment, Cultural Bridging, Meaning Mediator, Jakarta Batik Msmes

1. Introduction

Indonesia's batik industry as a UNESCO recognized intangible cultural heritage masterpiece faces a complex paradox in the creative economy era. On one hand, batik contributes 6.17% to non-oil and gas GDP and absorbs more than 3.8 million workers (Ministry of Industry of the Republic of Indonesia, 2023). On the other hand, batik cap MSMEs in Jakarta experienced a 10–15% sales decline in early 2024 due to changing consumer preferences and competition from imported textile products (Ministry of Industry 2024).

A critical phenomenon identified is consumer ambiguity a cognitive uncertainty condition in interpreting the value, quality, and meaning of batik cap. BPS DKI Jakarta (2024) recorded approximately 5,500 registered batik MSMEs under the Jakpreneur program, contributing 4.5% to national textile GDP. However, only 35% of MSMEs survive beyond five years due to inability to adapt to market dynamics. A Ministry of Cooperatives and SMEs survey (2024) showed that 50% of consumers still complain about low-quality perception of batik cap due to synthetic dyes that fade easily.

(Li et al. 2024) in Heliyon demonstrated that perception of cultural product quality is highly influenced by consumers' ability to decode visual meanings embedded in the product. When consumers cannot understand the meaning of batik cap colors and motifs, they tend to hesitate in purchasing. (Raya et al. 2021) in Sustainability confirmed that Indonesian batik MSMEs capable of combining cultural authenticity with contemporary design innovation experienced up to 25% higher sales compared to MSMEs focusing on only one aspect.

Consumer ambiguity in batik cap stems from three main dimensions as classified by (Eppler and Platts 2009): (1) Perceptual ambiguity inability to distinguish batik cap from digital printing at 1–2 meter viewing distance; (2) Referential ambiguity crisis of symbolic meaning of traditional motifs (kawung, parang) among urban youth who have lost connection with cultural narratives; (3) Evaluative ambiguity collapse of cultural hierarchy (tulis → cap → printing) due to inconsistent product positioning. These three dimensions mutually reinforce each other, forming an ambiguity cascade that impedes purchasing decisions.

A research gap emerges from the scarcity of qualitative studies deeply exploring color and motif adjustment strategies of batik cap as mechanisms to reduce consumer ambiguity within urban MSME contexts. Most previous literature focused on digital marketing aspects but has not thoroughly examined how batik cap producers actively modify product visual elements to overcome consumer perceptual uncertainty (Pradana and Wijaya 2020; Prastawa et al. 2017).

This research aims to: (1) identify forms of consumer ambiguity toward batik cap colors and motifs; (2) analyze color and motif adjustment strategies implemented by MSMEs; (3) explore the role of quality perception in connecting design strategy with purchasing decisions; and (4) describe the impact of strategies on sales improvement.

2. Theoretical Review (*Summary of Key Concepts*)

2.1. Consumer Ambiguity and Cultural Products

Consumer ambiguity is defined as cognitive uncertainty experienced by individuals when interpreting a product's meaning, value, or quality due to mismatch between received stimuli and mental schemas formed from cultural and social experiences (Hazen, Boone, and Roth 2014). In *batik cap* context, ambiguity is multidimensional concerning not only physical quality but also social status, cultural authenticity, and aesthetic relevance in contemporary urban life.

Eppler and Platts (2009) identified seven types of visual ambiguity; three are relevant for batik cap analysis:

- Perceptual ambiguity: unclear visual interpretation due to ambiguous stimuli
- Referential ambiguity: unclear symbolic meaning referenced by visual elements
- Evaluative ambiguity: uncertainty about appropriate evaluation criteria

Schema Incongruity Theory (Mandler 1982; Yoon and Simonin 2008) explains that stimuli incongruent with consumers' expectation schemas create cognitive tension. If unresolved through visual communication strategies, this tension leads to product rejection. In batik cap, tension arises when the schema "batik tulis = premium"

collides with reality "batik cap = affordable," or when symbolic meanings of traditional motifs are no longer recognized by younger generations.

Ambiguity Tolerance Theory (Budner 1962; Hazen et al. 2014) explains individual differences in accepting uncertainty. Consumers with low ambiguity tolerance tend to avoid batik cap due to status uncertainty, while those with high ambiguity tolerance conduct intensive information searches before purchasing.

2.2. Visual Perception: Color and Motif in Cultural Products

Sensory Marketing Theory (Krishna 2012) explains how visual stimuli directly influence quality perception, emotions, and consumer behavior. Color functions not only aesthetically but also forms hedonic value and serves as an extrinsic quality cue associated with product durability.

Semiotic Theory (Barthes 1967; Mick 1986) asserts that every visual element (color, line, motif) functions as a signifier producing different meanings (signified) depending on the receiver's cultural context. In batik, the kawung motif as signifier produces "purity" meaning in Javanese culture but may be interpreted as "decoration without meaning" by urban generations disconnected from traditional narratives.

Schema Theory (Bartlett 1932; Fiske and Linville 1980) explains that consumers interpret ambiguous stimuli based on pre-formed cognitive schemas. Orth and Malkewitz (2008) showed that moderate visual complexity combining motif regularity with controlled color variation generates the most positive affective response by fulfilling cognitive needs for visual readability without losing aesthetic appeal.

2.3. Quality Perception and MSME Marketing Strategies

Quality perception (Zeithaml 1988) is a subjective cognitive construction formed by consumers through integration of various quality cues both intrinsic (visual appearance, texture, colorfastness) and extrinsic (price, reputation, cultural narrative). For cultural products, quality perception is also influenced by cultural

capital ([Bourdieu 1984](#)), where knowledge about motif meanings and production techniques functions as social capital distinguishing "knowledgeable" from "lay" consumers.

Signaling Theory ([Connelly et al. 2011](#)) explains how MSMEs can reduce information asymmetry through credible quality signals such as production process transparency, certification, or design consistency that guide consumers in distinguishing quality products from inferior ones.

([Raya et al. 2021](#)) on Indonesian batik MSMEs confirmed that combining visual consistency improvement with cultural value education reduced perceptual ambiguity by 35% and increased sales conversion by 28%. ([Li et al. 2024](#)) on Gejia batik showed that understanding symbolic motif meanings significantly increased cultural identity attachment and purchase intention.

3. Research Methodology (Summary)

This study employed a descriptive qualitative approach with case study design, enabling holistic and contextual understanding of phenomena based on research subjects' perspectives ([Sugiyono 2019; Sutopo 2012](#)). The case study design allowed in-depth exploration of color and motif adjustment strategies implemented by Jakarta batik cap MSMEs in facing consumer ambiguity ([Yin 2018](#)).

Research setting: DKI Jakarta, focusing on batik cap MSMEs registered under local government development programs such as Jakpreneur. Jakarta's urban context was selected due to its dynamic market characteristics, high competition level, and heterogeneous consumer preferences sensitive to color and motif fashion trends.

Subjects: 8 purposively selected informants: 2 batik cap MSME practitioners (business owners directly involved in strategic design decisions), 5 batik consumers (2 young generation aged 22–29; 3 older generation aged 58–65), 1 Visual Communication Design academic with expertise in design and batik creative industry.

Data collection: Primary data: semi-structured in-depth interviews and field observation (production processes, consumer interactions, marketing activities), Secondary data: product documentation (catalogs, design portfolios, color samples), sales reports, and literature study from scientific journals and government reports (BPS, Ministry of Cooperatives and SMEs, Ministry of Industry)

Data analysis: Interactive model by (Miles, Huberman, and Saldaña 2019) involving:

1. Data reduction (filtering and focusing data according to research focus)
2. Data display (in thematic matrices, tables, and descriptive narratives)
3. Conclusion drawing/verification (conducted progressively and continuously verified)

Validity: Maintained through source triangulation (comparing data from MSME practitioners, consumers, and academics), method triangulation (interviews, observation, documentation), and member checking with key informants.

4. Research Findings

4.1. Generational-Based Color Perception Fragmentation

The study revealed sharp fragmentation in color perception between younger and older generations. Young consumers (22–29 years) associated traditional palettes (sogan brown, black, dark blue) with "monotony" and "urban aesthetic irrelevance." They preferred earthy tones such as olive green, terracotta, and dusty blue perceived as versatile for daily life and harmonious with digital visual identity.

"Colors like olive, sage, dusty pink are easier to match with daily outfits. Sogan colors are too dark, look outdated for office wear." (CONS-2, 27 years)

Conversely, older consumers (58–65 years) viewed traditional palettes as markers of "cultural authenticity" and "philosophical propriety." They rejected non-traditional color adaptations such as pink for parang motifs, considered "philosophically destructive" since parang as a symbol of strength should use dark colors.

"Traditional sogan color came from tingi wood, a long process producing deep colors with 'soul.' Nowadays most use synthetic dyes with 'dead' colors." (CONS-4, 65 years)

Responsive MSMEs implemented segmented visual design. MSME-2 developed a "color map" based on regions: soft tones for South Jakarta, bold tones (maroon, gold) for North Jakarta, while monitoring Instagram/TikTok trends every three months to adjust color palettes.

4.2. Three Dimensions of Consumer Ambiguity Toward Motifs

The research identified three ambiguity dimensions mutually reinforcing an ambiguity cascade (summarized in Table 1):

Table 1. Three Dimensions of Consumer Ambiguity Toward Motifs

| Dimension | Manifestation | Empirical Evidence |
|-----------------------|---|--|
| Perceptual Ambiguity | Inability to distinguish quality batik cap from premium digital printing at 1–2 meter viewing distance | "I often confuse high-quality batik cap with premium printing, especially from online photos." (CONS-5, 58 years) |
| Referential Ambiguity | Generational meaning crisis: 80% of young consumers cannot decode symbolic philosophy of traditional motifs | "I don't mind wearing batik cap if I know the motif's meaning. But if it's just a pattern without story, it's no different from ordinary printed fabric." (CONS-3, 29 years) |
| Evaluative Ambiguity | Collapse of cultural hierarchy due to inconsistent positioning | "I'm confused evaluating this large-scale kawung motif. Visually attractive, but can it still be called batik?" (CONS-4, 65 years) |

4.3. MSME Adaptive Strategies in Reducing Ambiguity

Successful MSMEs adopted three integrated strategies (Table 2):

Table 2. Successful MSMEs adopted three integrated strategies

| Strategy | Implementation | Impact |
|-------------------------|--|---|
| Segmented Visual Design | Color palette and motif scale adjustment based on generation/region segmentation; product categorization with 3–4 options per category | Reduced choice overload; increased purchase conversion by 35–100% |
| Cultural Bridging | Principle of "adaptation not adoption": maintaining core philosophy while modernizing visual execution; meaning education through story labels and digital content | Increased cultural familiarity among young consumers; built long-term trust |
| Quality Signaling | Production process transparency; three-stage quality control system (colorfastness testing, random sampling, double inspection) | Increased consumer trust; 45% buyers were new consumers aged 20–45 |

"I preserved the cloud shape of Cirebon's mega mending motif, but made its repetition asymmetrical unlike the original, combined with monochrome palette. The result still looks like mega mending but more contemporary. I didn't erase cultural values." (MSME-2)

"Quality control system greatly influences quality perception, even more than price. I often receive uniform orders where colors remain safe after 3–5 washes." (MSME-2)

4.4. Impact on Sales

Integrated strategies significantly improved sales performance. MSME-2 reported sales increase from 20 to 40 pieces/month (+100%) with 25% higher profit through premium batik cap orders based on client requests. 45% of buyers were new consumers aged 20–45 who previously never purchased batik cap due to limited

understanding of cultural meaning. Repurchase rate reached 38%, indicating that design adjustments produced not only temporary novelty effect but also built long-term trust.

5. Conclusion

This study concludes that consumer ambiguity toward batik cap manifests in three dimensions: perceptual ambiguity (inability to distinguish cap from printing), referential ambiguity (emptiness of symbolic meaning of traditional motifs among younger generations), and evaluative ambiguity (collapse of cultural hierarchy due to inconsistent positioning). These dimensions mutually reinforce an ambiguity cascade impeding purchasing decisions.

Successful MSMEs implemented three integrated strategies:

- (1) Generation- and region-based segmented visual design reducing choice overload;
- (2) Cultural bridging through the "adaptation not adoption" principle maintaining core philosophy while modernizing visual execution;
- (3) Quality signaling through production transparency and three-stage quality control building consumer trust.

These strategies increased purchase conversion by 35–100%, opened new consumer segments aged 20–45, and built long-term trust with repurchase rates up to 38%. Product design functions as a meaning mediator actively engineering consumers' cognitive processes to transform ambiguity into perceptual clarity through visual disambiguation, cultural bridging, and quality signaling.

The research extends Ambiguity Theory (Eppler and Platts, 2009; Hazen et al., 2014) to Indonesian cultural products by identifying structural-systemic ambiguity not only psychological-individual but also caused by institutional failure in building clear certification systems. The study also introduces the concept of stratified authenticity as resolution to the false dichotomy of "authenticity versus

modernity"an MSME strategy offering layered authenticity for different generational segments without sacrificing core cultural identity.

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