

EXPLORING GLOBAL CONSUMER PERCEPTIONS OF INDONESIAN HANDICRAFTS ON AMAZON

Wiwi Andrianti¹

¹Faculty of Economics and Business, Universitas Terbuka, Indonesia

Correspondence: 048873734@ecampus.ut.ac.id

Abstract. Indonesian handicraft products represent significant potential in the global market; however, local artisans or SMEs often face challenges in maintaining quality according to international standards, particularly regarding climate differences. Negative reviews frequently found on global B2C marketplace platforms such as Amazon and Etsy, as well as B2B platforms like Alibaba, have become a systemic threat and a primary issue that ultimately damages the "Made in Indonesia" image. This research aims to analyze global consumer perceptions and design a solution applicable to artisans. The chosen method is a qualitative approach utilizing three methodological pillars: a Netnography study on the digital platform Amazon as the primary object, the Health Belief Model (HBM) framework, and the Design Thinking methodology. Data were obtained through in-depth observation of customer reviews on Indonesian handicraft products on the Amazon platform during a specific period. The results of the analysis indicate that the artisans' lack of knowledge regarding the sociocultural conditions and the climate of the destination country is a major cause of low customer satisfaction. As a solution, this study proposes the "KARYA-GLOBAL" application method, which integrates visual assistance features, climate adaptation sensors, and easier access to certification. Digital assistance innovations based on AI and audio-visuals are designed to perform the aesthetization of technical information to bridge the literacy gap for local artisans. Through this technology, perceived barriers are reduced to enhance competitiveness in the international market within the Society 5.0 era.

Keywords: *Amazon, Indonesian Handicrafts, Netnography, Climate Adaptation, Digital Application.*

Introduction

Handicraft products made from teak, mahogany, and rattan carry cultural weight, but their economic weight is just as real. The sector employs more than 819,000 workers and stands as one pillar of Indonesia's non-oil and gas exports (Kemenperin, 2024). Exports of Indonesian handicrafts and home décor reached USD 35.76 million in the first quarter of 2024 alone (LPEI, 2024), and Indonesia remains the world's largest exporter of processed rattan, holding a 42.2% share of the global market (Kemenperin, 2024). E-commerce platforms such as Amazon now let artisans sell directly to international consumers (Keegan & Green, 2020). Wood and organic fibres are sensitive to environmental change. Products made in Indonesia's tropical climate can warp, crack, or even develop mould once they reach temperate or cold regions. This responsiveness of wood to temperature and humidity has been documented in earlier studies of organic material durability (Kim, 2023). On global platforms such as Amazon, Etsy, and B2B sites like Alibaba, negative reviews stemming from this kind of damage have become a recurring threat to consumer trust. Reviews function as a barometer of brand credibility in the digital age (Chen & Xie, 2008), and a steady

build-up of poor ratings can erode the perceived value of "Made in Indonesia" products (Laudon & Traver, 2023).

Statistics Indonesia (BPS, 2024) reports that export barriers facing Indonesian SMEs go beyond technical issues. Institutional weaknesses, limited access to information, sociocultural gaps, and complex certification procedures all play a part. Bustaman et al. (2022) even find that the quality of domestic institutions matters more for export performance than trade tariffs do. This points to a need for digital interventions that can reach artisans regardless of their level of literacy (World Bank, 2025).

Earlier studies have looked at Indonesian handicraft exports mainly through the lens of export performance, digital marketing, and consumer satisfaction (Bustaman et al., 2022; Basuki et al., 2025). Few, however, have asked how online consumer reviews could be turned systematically into climate adaptation strategies for artisans through a digital support system. Nguyen et al. (2021) examined Vietnamese handicraft products on Amazon using data analytics, but did not look at how qualitative review insights might inform product adaptation or artisan capacity building. This is the gap the present study tries to fill, by combining netnography, the Health Belief Model (HBM), and Design Thinking into a conceptual application design. Specifically, it proposes a framework that turns consumer feedback into actionable recommendations for artisans, connecting market signals with production practices. Netnography (Kozinets, 2020), the Health Belief Model (Glanz et al., 2015), and Design Thinking (Brown, 2009) together form the basis for designing the "KARYA-GLOBAL" application, positioned here as part of the digital transformation of SMEs toward the Society 5.0 era.

Given this gap, the study pursues two objectives: first, to identify the complaint patterns that recur most often in Amazon reviews of Indonesian handicraft products, particularly those linked to climate-related damage; second, to translate these patterns into a conceptual digital application that helps artisans anticipate destination-market conditions before their products are shipped.

Research Method

This study uses a qualitative exploratory design based on netnography (Kozinets, 2020; Creswell & Creswell, 2021). The design fits the research problem, which calls for a rich, contextual understanding of consumer experience rather than a statistically generalisable measurement (Saunders et al., 2019). Data were collected by observing verified purchase reviews of Indonesian wooden handicraft products on Amazon US as the primary platform. The observation period ran from January 2024 to February 2026, covering reviews across the full 1–5 star rating spectrum. Each review selected for in-depth analysis was captured through screenshots at the time of observation, following Kozinets' (2020) documentation protocol, so that the excerpts discussed later in this paper can be traced back to their original source if required.

Reviews were retrieved using keyword searches on Amazon US, including combinations such as "Indonesia wooden furniture," "Indonesia handicraft," "Indonesia rattan," "handmade teak Indonesia," and related product categories (home décor, furniture, wall decor, and kitchen accessories). To ensure that products originated from Indonesia, only listings that explicitly stated "Made in Indonesia" or specified "Country of Origin: Indonesia" in the product description were included. The search covered multiple sellers and

product categories so as to capture a diverse range of handicraft types, including furniture, decorative items, and functional home goods. No restrictions were placed on seller size or rating in order to avoid selection bias.

The researcher began with an initial observation of around 200 verified reviews identified through keyword-based searches (1–5 star ratings), in order to map out common complaint patterns. From this initial pool, five negative reviews (1–3 stars) were purposively selected for in-depth analysis. Selection criteria included: (1) reviews written in English, (2) reviews describing material damage, (3) products in the home décor or furniture category, and (4) reviews accompanied by visual evidence (photographs). These five were chosen because together they capture the complaint patterns that recurred most often across the 200 reviews. It is worth being precise about what "saturation" means here: pattern-level saturation was judged to have been reached once the recurring complaint categories stopped changing across the 200 reviews screened at the initial stage (Creswell & Creswell, 2021); the five reviews analysed in depth were then treated as illustrative cases of those saturated patterns, rather than as a separate sample expected to reach saturation on its own. The 200 reviews were drawn from listings across several sellers, so the patterns identified would not simply reflect one seller’s practice. All reviews at both stages were read and coded by the researcher, and the resulting themes were discussed with an academic supervisor during peer debriefing, to check whether the interpretation held up and was not simply a personal reading of the text.

The Health Belief Model was chosen from the outset as the interpretive lens for this study, not applied after the fact; it shaped how the coding process itself was structured. Data analysis proceeded in three stages: open coding to identify keywords of complaints, axial coding to group these into themes, and selective coding to organise the themes according to HBM constructs. The coding results were reviewed through peer debriefing with an academic supervisor to check objectivity and interpretive consistency. All review data were anonymised in line with the ethical protocols recommended by Kozinets (2020).

The principles of Design Thinking (empathise, define, ideate, prototype) were applied in designing the application (Brown, 2009). The design also took into account the characteristics of artisans in the Jepara and Cirebon industrial centres, drawing on literature about the sociocultural and technical challenges faced by artisans in these regions.

Table 1. Illustrative Example of the Coding Process

Keyword in Review	Open Code	Theme
Cracked	crack	durability
humidity	climate	adaptation
Broken	shipping	logistics

Results and Discussion

Among the roughly 200 reviews initially observed, the dominant complaints centred on structural failure: cracks, loose joints, warping, and damage caused by changes in temperature and humidity. The five selected negative reviews represent these patterns. The following excerpts were identified during the observation:

Excerpt 1: "I like the look of this chair, but the quality control is poor. The first one arrived broken. The replacement broke after less than a month of use... As soon as I sat down, the back snapped." (US, 1 star, dining chair)

Excerpt 2: "After 7 weeks of use, the table top split. It has been in an air-conditioned room the whole time... The seller promised to send a replacement, but it's been months and there's been no news." (US, 2 stars, table)

Excerpt 3: "Arrived damaged... There was a split on the side... maybe it cracked because of the temperature changes during shipping." (US, 3 stars, decorative cabinet)

Excerpt 4: "This art is so beautiful... but unfortunately, it arrived broken... It was meant to be a gift and I can't give it now." (US, 1 star, wood carving art)

Excerpt 5: "The cabinet is beautiful. But after 6 months of use, it is starting to warp. We live in a humid area, so maybe it is related to the climate." (US, 3 stars, cabinet)

Three of the five reviews analysed in depth cited damage caused by temperature and humidity (Excerpts 2, 3, and 5), while two highlighted issues with joint quality and shipping damage (Excerpts 1 and 4). This pattern is consistent with the trends observed in the initial review of 200 reviews. These findings align with those of Nguyen et al. (2021), who found that handicraft products with high artistic value but low material quality tend to receive poor reviews after several weeks of use.

Table 2. Complaint Theme Frequency Across the Five In-Depth Reviews

Complaint Theme	Frequency (5 Reviews)
Cracking	3
Humidity	2
Shipping Damage	2
Loose Joints	1

Health Belief Model Analysis and the Information Gap. Drawing on the identified complaint patterns, this study mapped the findings onto the Health Belief Model framework (Islam et al., 2026) in order to examine the gap between consumer expectations and product readiness. HBM was chosen because it provides a useful framework to interpret recurring review patterns that may indicate gaps between current production practices and destination-market requirements.

It is worth being explicit about why a health behaviour theory is being borrowed here. HBM was originally developed to explain individual health-protective decisions, not export behaviour or technology adoption, so its use in this context needs some justification rather than being taken for granted. The rationale is structural rather than topical: HBM's core logic, that people act to reduce a perceived threat once they judge the threat to be both real and manageable, maps reasonably well onto how artisans might respond to climate-related product failure once it is framed as a risk they can act on, rather than an unavoidable cost of doing business. Perceived susceptibility and severity correspond to how aware artisans are that their products are vulnerable to specific destination-market conditions, while perceived benefits and barriers correspond to whether the technical fixes are seen as worth the additional effort and cost. This is different from, and does

not replace, technology-adoption frameworks such as the Technology Acceptance Model (TAM) or the Technology-Organisation-Environment (TOE) framework, which explain why artisans would adopt a digital tool like KARYA-GLOBAL itself. HBM was used here to interpret the underlying risk perception problem visible in the review data; a TAM- or TOE-based analysis would be a natural next step once the application is tested with artisans directly.

Table 3. HBM Matrix Based on Amazon Review Patterns

HBM Construct	Findings from Reviews	Application Needs
Perceived Susceptibility	Review patterns suggest limited consideration of climate and destination-market conditions.	Climate simulator & market culture guide
Perceived Severity	Negative reviews damage reputation (Excerpts 1 & 4)	Visualisation of review impact on sales
Perceived Barriers	Products are prone to cracking/mould (Excerpts 2, 3, & 5)	Adaptation guidelines & export packaging standards
Perceived Benefits	Consumer trust increases through better product durability and transparency	Digital identity & quality transparency
Cues to Action	Recurring negative reviews indicate limited corrective actions (Excerpt 2)	Automated climate risk notifications & early warnings
Self-Efficacy	Findings suggest that limited knowledge and technical support may reduce artisans' confidence in implementing adaptation strategies	Interactive training modules & community forums

Source: Amazon Review Analysis, 2026

The review patterns indicate a gap between consumer expectations and observed product performance. Cues to Action (negative reviews) are available, but they do not appear to be sufficient to drive change, as artisans lack effective channels for turning feedback into remedial action. This is evident from the recurring complaint patterns found in the initial observation of 200 reviews. The findings suggest that limited knowledge and technical support may reduce artisans' confidence in implementing adaptation strategies, since they tend to see climate adaptation and international standards as requiring substantial costs and specialist expertise.

These findings point to climate as an important factor behind product durability. Wood and rattan are organic materials that respond dynamically to their environment, and their physical properties can shift noticeably with changes in temperature and humidity (Kim, 2023). Kim's (2023) study looked at traditional wooden architecture, not furniture, but the underlying behaviour it describes, wood expanding, contracting, and cracking in response to microclimate shifts, applies just as well to smaller wooden and rattan objects, including the handicraft products examined here. For Indonesian handicrafts exported to temperate regions, the absence of climate-adaptive production methods appears to be one factor behind consumer dissatisfaction. Technical interventions such as improved kiln drying, moisture-resistant coatings, and climate-appropriate packaging are not simply nice to have; they matter for keeping product quality consistent across different markets.

Consumer reviews on platforms like Amazon are more than individual complaints. Taken together, they act as a collective signal that can inform product innovation, and user-generated content has become a genuinely valuable source of market intelligence in the digital economy (Chen & Xie, 2008; Tirunillai & Tellis, 2014). What this study finds, though, is that artisans and SMEs have limited capacity to analyse or act on these signals in any systematic way. That is a missed opportunity, since consumer feedback could otherwise drive product adaptation and quality improvements. The KARYA-GLOBAL application proposed here tries to close that gap by turning review patterns into recommendations artisans can actually use.

The findings also diverge from Nguyen et al. (2021) in one important respect. Nguyen et al. relied on data analytics to identify top-selling products; this study instead focuses on the qualitative texture of consumer dissatisfaction. The detailed narratives found in negative reviews show what went wrong, but they also reveal consumer expectations about material performance and care instructions, something a purely quantitative approach would likely miss. That qualitative insight matters for artisans, who need to understand context-specific factors, heating systems in winter, humidity in coastal areas, and so on, that affect how long a product lasts. Feeding these insights into a digital support system is what pushes the proposed application beyond sales optimisation and toward genuine capacity building for artisans.

Bustaman et al. (2022) stress that institutional barriers, particularly limited access to market information and complex certification procedures, remain primary obstacles. BPS (2024) similarly notes that convoluted certification processes and a weak grasp of destination-market sociocultural conditions pose real challenges for SMEs. Endayani et al. (2026) add that language barriers and a lack of cross-cultural understanding constrain Indonesian SMEs trying to access global markets. Taken together, these findings suggest that digital solutions need to prioritise accessible education and practical technical guidance.

KARYA-GLOBAL Application Design. The "KARYA-GLOBAL" application consists of four core modules, designed with AI and audio-visual elements, with the aim of narrowing the literacy gap among artisans; whether they succeed in practice is a question for usability testing rather than something this conceptual design can claim on its own:

1. Climate Simulator (Climate Adaptation Sensors): This module is intended to compare product moisture levels against ideal environmental conditions in target markets, using global weather data

integration (for example, the OpenWeatherMap API) and moisture sensors. This approach is consistent with the development of sensor-based wood moisture content measurement systems (Hu et al., 2024), as well as the broader use of IoT for product quality monitoring (Ben-Daya et al., 2019). The module addresses complaints found in Excerpts 3 and 5, along with sociocultural aspects related to consumer expectations in specific climates.

2. Adaptation Recommendations: This module is designed to provide technical guidance on kiln drying duration, moisture-resistant coatings, and secure export packaging protocols. The guidance is presented in short video and infographic formats (audio-visual) to aid comprehension. This responds to Excerpts 2 and 4.

3. Digital Identity & QR Code: This feature is designed to provide a digital product passport that enables consumers to trace material origins, certification status, and climate-specific care instructions. It responds to consumer demands for transparency, as QR Code-based traceability systems have been shown to increase consumer trust through supply chain verification (Nguyen & Nguyen, 2025). It also helps build trust among international consumers.

4. Certification Navigator: This interactive guide is intended to facilitate SVLK and FSC certification applications, complete with cost estimates and collective application options. It addresses the institutional barriers identified by Bustaman et al. (2022) and BPS (2024).



Figure 1. KARYA-GLOBAL Application Module Framework Prototype

Figure 1 illustrates the conceptual workflow of the proposed KARYA-GLOBAL application.

The system is built on an offline-first architecture with icon-based navigation, to work around the limited internet connectivity common in production areas (World Bank, 2025). This fits with what Nguyen et al. (2021) found: digital infrastructure limitations often keep artisans in developing countries from reaching global markets in the first place. The AI-assisted audio-visual features are meant to simplify technical

information and make it accessible to artisans with different levels of literacy, in keeping with the Society 5.0 vision of technology that helps people through better access to information and stronger digital literacy.

Conclusion

This study suggests that inadequate climate adaptation is likely one of the main factors behind negative reviews of Indonesian handicraft products on Amazon. The pattern emerged from the initial observation of around 200 reviews and was reinforced by the in-depth analysis of five selected negative reviews. These findings extend Nguyen et al. (2021) by drawing out the qualitative patterns behind consumer dissatisfaction, and draw on Kim (2023) for a theoretical account of how wood behaves under changing environmental conditions.

This information gap may add to broader reputational risks that affect how competitive Indonesian handicraft products are in international markets. Factors such as limited access to market information, complex certification procedures, and inadequate digital infrastructure, as noted by Bustaman et al. (2022) and BPS (2024), only make the situation harder. This study puts forward the "KARYA-GLOBAL" application, with its four integrated modules, as a conceptual response intended to reduce perceived barriers and support the transition of SMEs toward the Society 5.0 digital ecosystem. Its actual effectiveness has not been tested and would need to be established through usability testing with artisans before any stronger claim can be made.

Research Limitations: The in-depth analysis was limited to five reviews; the initial observation covered only approximately 200 reviews; the application remains conceptual; no quantitative testing has been carried out; and no direct observation of artisans has been undertaken. In addition, this study relied solely on secondary data derived from online consumer reviews, without direct interviews or observations involving artisans or consumers.

Recommendations for Future Research: Functional prototype testing with artisans; comparative studies with other ASEAN countries such as Vietnam; large-scale quantitative surveys; and research with larger review samples and fieldwork observations.

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Author Biography

Wiwi Andrianti is a student in the Management Programme at the Faculty of Economics and Business, Universitas Terbuka. She is also active as a content creator and a junior digital marketing specialist. Her research interests lie at the intersection of international consumer behaviour, digital transformation for small and medium enterprises, and sociotechnical application design.