



The influence of online bamboo product marketing strategy on consumer buying interest

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ABSTRACT

Compared with the large literature on generic e-commerce goods, research on how online marketing strategy shapes consumer interest in traditional non-timber forest products (NTFPs) is thin. Bamboo ulos bags illustrate the gap well: they combine everyday functionality with cultural and local wisdom, so consumers may not respond to their online marketing the same way they do to mass-market products. That is the question this study tests. The study examines the effect of online marketing strategy on purchase interest at Etnobambu Craft, an online store in North Sumatra, Indonesia that sells bamboo ulos bags. It uses an associative-descriptive design and covers the store's full population of 20 customers who bought a bag between August and September 2024, via census sampling. Data collection relied on a five-point Likert questionnaire adapted from established digital marketing mix and purchase intention indicators. The analysis was conducted using SPSS 25, which included several tests: the Pearson product-moment correlation test, Cronbach's alpha for reliability, the Kolmogorov-Smirnov normality test, and a simple linear regression model. From the data analysis, it is known that the online marketing strategy received an average score of 77.8 and a purchase interest score of 76.4, both in the "good" category. The results of the simple linear regression model analysis are significant from the marketing strategy to purchase interest ($p = 0.000 < 0.05$; $Y = 38.200 + 1.000X$). Therefore, social media promotions, discounts, and free shipping are the most important and beneficial strategies for forest product-based SMEs seeking to drive purchase interest in bamboo-based craft products through online marketing.

Keyword: Bamboo Ulos, Digital Marketing, Non-Timber Forest Product, Online Marketing Strategy, Purchase Interest

1. Introduction

Advances in digital technology have removed the stock constraints faced by traditional retailers, enabling online stores to offer a much broader catalog [1,2]. Indonesia is experiencing a similar transformation, driven by increased internet access and the availability of affordable smartphones, leading to a significant surge in mobile shopping [3,4]. In this highly competitive environment, having an online presence alone is no longer enough; companies need to employ effective marketing tactics to convert potential buyers' interest into actual purchases. More and more businesses are now transacting through digital platforms, and this raises an important question: what really motivates someone to click the "buy" button when shopping online? [5]. Retailers still face challenges converting searches into purchases, largely because online stores cannot provide the immediate cues that typically help consumers make decisions [6]. This situation is further complicated for products like handwoven bamboo bags, where the main appeal cannot be fully appreciated on screen: the weight of the bag in the hand, the texture of the weave, and the attention to detail evident in the manufacturing process. Because shoppers cannot see and feel the product before making an online purchase, marketing strategies must compensate for this lack of sensory interaction.

Sellers are leveraging social media platforms, personalized advertising, and discounts to connect with their target audiences [7,8]. These tactics not only reach consumers but also help shape brand identity and product perception [6,9], making it important for marketers to align their strategies with specific offerings [10]. In the handicraft sector, the effects of social media marketing depend heavily on the specific product and its context. For example, content marketing has been shown to increase purchase intention by making items appear more attractive and valuable [11], while consistent use of social media can enhance brand recognition and the reputation of handicrafts [12]. However, digital marketing research on Indonesian MSMEs indicates that craft-based sectors remain underrepresented, calling for further investigation into areas such as ethnic fashion and bamboo crafts [13].

Digital marketing continues to grow, but its actual impact on small, craft-based businesses remains poorly documented. Influence consumers' perceptions and purchasing decisions? Using a bamboo-based craft product as the focus, this study examines consumer interest and purchasing decisions.

2. Method

Etnobambu Craft is a home-based online enterprise based in Medan, North Sumatra. The store markets handwoven bamboo craft products, including bamboo ulos bags, through Shopee (shopee.co.id/hafizah23) and Instagram ([instagram.com/etnobambu](https://www.instagram.com/etnobambu)), both operating under the store name Etnobambu Craft. Communication with customers, including the distribution of the questionnaire link (a Google Form), was conducted through the chat feature within Shopee's purchase chat box. All of the store's customers were based in Medan, since the online store had only been operating for a few weeks before this research was conducted. The research subjects were these consumers who shop at the Etnobambu Craft online store. This research was conducted to determine the effects of online marketing tactics on consumers' purchase intentions. This study employed a descriptive-associative research design to examine the relationship and contribution of online marketing strategy (X), the independent variable, to consumer buying interest (Y), the dependent variable.

Twenty customers who purchased bamboo ulos bags between August and September 2024 constituted the entire customer population of the store during that period; no customers were excluded, and no additional customers outside this window were surveyed, as the window was defined by the store's own sales records rather than a separate sampling frame. Because the population was small and fully enumerable, a saturation (census) sampling method was used, in which every member of the population was included as a respondent, an approach commonly recommended when a population is small and completely accessible [14]. This avoids the sampling error associated with drawing a subsample from a small population. However, it also means the findings describe the customer base of this store during the study window rather than the wider bamboo-craft consumer population.

The questionnaire items for the online marketing strategy variable (X) were developed from indicators commonly used in digital marketing mix research: product, price, promotion, and place/distribution adapted to an online-store context (e.g., product design and material, price fairness, promotion via social media, discounts, free shipping, and delivery service), consistent with digital-marketing constructs reported in prior MSME and creative-product studies [13] [15]. The questionnaire items for purchase interest (Y) were adapted from standard purchase-intention indicators covering attention, information seeking, product awareness, price quality evaluation, and willingness to buy, consistent with the attention-interest-desire-action (AIDA)-based purchase-intention framework commonly used in consumer behavior research [16]. Each item was phrased as a single statement rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree); respondents completed the questionnaire online after making their purchase. A summary of the ten items for each variable is provided in Tables 5 and 6.

The data collection methods used in this study were library research, field research, and questionnaire surveys [14]. Two types of data sources were used to obtain relevant, accurate, and reliable data: primary and secondary sources.

Table 1. Scale range analysis

Scale range	Description
20-35	Strongly (Disagree, Dissatisfied, Unfavorable)
36-51	Disagree, Dissatisfied, Not Good
52-67	Fairly Agree, Fairly Satisfied, Fairly Good
68-83	Agree, Satisfied, Good
84-100	Very (Agree, Satisfied, Good)

To interpret the average scores presented above, this study uses the scale-range technique, following the categorization commonly used in Indonesian quantitative social research to convert continuous Likert-based scores (20–35 to 84–100) into qualitative categories [14].

3. Result and Discussion

3.1. Respondent characteristics

This study involved 20 consumers who had previously purchased bamboo ulos bags as the research sample. The responses gathered from them were organized into several categories, as shown below.

3.1.1. Respondents by gender

The distribution of participants by gender is shown in Table 2. This information provides insight into the proportion of male and female respondents involved in the study.

Table 2. Characteristics of respondents by gender

Gender	Total	Percentage
Male	5	25%
Female	15	75%
Total	20	100%

Source: Primary data (2024)

The table above shows that the questionnaire respondents were predominantly women (15, 75%), while men accounted for 5 respondents (25%). This indicates that the buyers of bamboo ulos bags and the respondents to the questionnaire are predominantly women [17,18]. This predominance may be related to the positioning of woven bags as fashion or lifestyle accessories, a product category that generally attracts greater interest from female online shoppers [12]. However, because the data were collected from a single online store, the findings reflect only the characteristics of Etnobambu Craft's customers during the study period. They should not be generalized to the broader bamboo craft consumer market.

3.1.2. Respondents by ages

The respondents' age composition is summarized in Table 3. The data help to describe the age range and dominant age group within the surveyed population.

Table 3. Respondent characteristics by age

Age	Total	Percentage
15-24 Years	11	55%
25-34 Years	5	25%
35-44 Years	3	15%
>45 Years	1	5%
Total	20	100%

Source: Primary data (2024)

The largest group of respondents (11 individuals, 55%) was aged 15–24 years, while the second-largest group (5 individuals, 25%) was aged 25–34 years. One plausible explanation is that bamboo ulos bags are designed with a laptop compartment. This feature may particularly appeal to productive-age consumers who commute with electronic devices for study or work. However, the questionnaire did not directly ask respondents about this specific motivation, so this remains an interpretation rather than a finding directly

supported by the data; it should be verified in future research using items that ask explicitly about use-case and purchase motivation.

3.1.3. Respondents by occupation

The classification of respondents by main occupation is presented in Table 4.

Occupation	Total	Percentage
Senior High School Student	7	35%
College students	10	50%
Employee	3	15%
Total	20	100%

College students were the largest buyers of bamboo ulos bags, with 10 purchases (50% of the total). High school students are in second place, with a total of 7 transactions (35% of the total). They, along with university students, are the main buyers of bamboo ulos bags with laptop pockets, as they need to carry laptops daily during the learning process. This group of students, the majority of whom are Generation Z, prefers sustainable, environmentally friendly options. Research reveals that their attachment to environmental issues directly influences their choice in purchasing products made from bamboo [19] [20]. This pattern likely also reflects the store's promotional reach on student-dominated social media platforms, in addition to the practical need among students to carry laptops; both factors align with the marketing indicators examined in Section 3.2.

3.2. Results of descriptive analysis

The questionnaire results from 20 respondents were analyzed using descriptive statistics, which systematically and objectively describe data without drawing conclusions or predictions [21].

3.2.1. Description of online marketing strategy

This section describes the online marketing strategy applied to bamboo ulos bags. Table 5 lists the components of the strategy and the results observed for each.

No.	Statement	Responses					Total score
		5	4	3	2	1	
		VA	A	FA	D	SD	
1	Consumers know about woven bamboo NTFP products (bags)	7	7	4	1	1	78
2	The type of material used is comfortable	8	8	2	2	0	82
3	Attractive product design	10	5	3	2	0	83
4	The prices offered are affordable	6	4	8	2	0	74
5	Price influences consumer buying interest	9	5	4	2	0	81
6	Promotion of woven bamboo (bags) is carried out via the internet	7	7	2	4	0	77
7	Free delivery on purchases	8	3	8	0	1	77
8	Discounts are given for product purchases	7	9	2	1	1	80
9	Delivery of woven bamboo (bags) using courier services	6	6	4	4	0	74
10	Woven bamboo (bags) are sold in online stores	6	5	6	1	1	72
Total		74	59	43	19	4	778
Percentage(%)		37.2	29.6	21.6	9.5	2.0	77.8

The mean score for the Online Marketing Strategy variable (X) was 77.8, which falls within the "good" range on the 68–83 scale. This result suggests that the digital marketing strategy analyzed in this study is performing effectively and successfully meeting its objectives. This is in line with previous research showing that integrating online channels increases customer interaction and sales results [22] and that the use of digital marketing is positively related to the growth and performance of small and medium enterprises [15].

Furthermore, small and medium enterprises in Indonesia that produce creative goods with cultural value are increasingly utilizing social media, marketplace optimization, and culture-based digital marketing campaigns to attract consumer attention [13]. For bamboo products such as ulos bags, visual marketing plays a theoretically important role: because these products cannot be seen directly before purchase, high-quality photos and videos serve as effective substitutes for physical evaluation, thereby increasing perceived value and purchase intention without physical interaction [11]. Therefore, visually rich content and transparent pricing should be prioritized over discounts alone, especially since price-related metrics receive lower scores than those related to the product and its promotions.

3.2.2. Description of respondents' purchase interest

The respondents' purchase interest in bamboo ulos bags is outlined in this section. Table 6 summarizes the results, illustrating the degree of consumer intention and preference toward purchasing the product.

Table 6. Results of respondents' purchase interest

No.	Statement	Responses					Total score
		5	4	3	2	1	
		VA	A	FA	D	SD	
1	Consumers have attention to promotion of woven bamboo (bags).	6	6	6	2	0	76
2	Consumers need information about woven bamboo (bags)	6	6	5	2	1	74
3	consumers are aware of woven bamboo (bags) as local wisdom	7	6	6	1	0	79
4	Consumers are interested in buying woven bamboo (bags)	6	5	8	1	0	76
5	Consumers are interested in buying if the product price matches its quality	9	4	7	0	0	82
6	Consumers want to buy woven bamboo (bags) because of their interest in quality products	6	7	5	2	0	77
7	Consumers are willing to buy woven bamboo (bags) if the design is attractive	8	4	8	0	0	80
8	Consumers buy woven bamboo (bags) if there is a discount	4	7	6	3	0	72
9	Consumers buy woven bamboo (bags) because of necessity	4	7	7	2	0	73
10	Consumers will buy woven bamboo (bags) because the quality of the bags is good	6	5	7	2	0	75
Total		62	57	65	15	1	764
Percentage (%)		31.0	28.5	32.5	7.5	0.5	76.4

The average score for the consumer purchase interest variable is 76.4, which falls within the 68–83 interval on the scale-range table, corresponding to the 'good' category. This indicates that consumer purchase interest in bamboo ulos bags is fairly positive, reflecting that marketing strategy and other factors influencing consumer decisions have driven purchase interest in a favorable direction. Purchase interest is a key behavioral indicator that reflects the likelihood that consumers will make a purchase decision based on their perceptions of product value and marketing influence [7].

Compared with social-media-marketing studies of handicraft products elsewhere, which found that social media activity builds purchase intention primarily by first building brand awareness and brand image [12], the present findings, an average purchase-interest score of 76.4 following closely from a marketing-strategy score of 77.8 are consistent with a similar underlying mechanism. However, this study did not formally test brand awareness as a mediating variable. Theoretically, this suggests that online marketing strategy operates on purchase interest for bamboo ulos bags in much the same way it does for other handicraft categories, extending the marketing mix purchase intention relationship documented in general e-commerce and MSME research [13,15] to NTFP-based craft products. Practically, sellers of locally wisdom-based craft products such as bamboo ulos bags can reasonably adopt digital marketing tactics validated in the broader handicraft and creative-product literature [11]-[13], while still tailoring content to emphasize the cultural and material story of the product, an emphasis that prior studies of bamboo-based forest products suggest strengthens consumer engagement with heritage-based goods [23,24].

3.3. Validity test

In SPSS, the researcher used the Pearson Bivariate correlation for the validity test, with a 0.05 level of significance.

3.3.1. Validity test of the online marketing strategy variable (X)

The analysis results show that the first questionnaire item has the highest validity score (0.704), while the fourth statement item has the lowest (0.456). Although there are differences in validity scores among the items, overall the marketing strategy variable meets the validity criteria because all instrument items have an R-count value greater than the R table value. This shows that all the statements used in the measurement are considered valid and reliable for measuring the marketing strategy variable.

3.3.2. Consumer purchasing intention variable validity test (Y)

The R-table value at a 0.05 significance level is 0.444. Among the statement items, the second scored highest (0.680) and the fourth scored lowest (0.464). Despite this range, every item's R-count exceeds the R-table value, so all instruments used in this study are valid.

A valid instrument measures the intended construct accurately and consistently, which is why instrument validity affects the reliability of data collected in quantitative research [25]. Confirming construct validity and reliability, in turn, supports correct data interpretation and the overall credibility of the findings [26].

3.4. Reliability test results

Using the SPSS 25 program and the Alpha-Cronbach method, the reliability test was conducted in this study. After conducting the test using SPSS 25, the following results were obtained:

Table 7. Reliability test results

Variable	Cronbach's Alpha	R table (0.444)	Description
X	0.766	0.444	Reliable
Y	0.714	0.444	Reliable

3.5. Normality test

The results of the statistical test using SPSS 25 can be interpreted from the Kolmogorov-Smirnov Normality Test. The outcomes of the Kolmogorov-Smirnov Normality Test indicate that the significance value was 0.200 (> 0.05), which means it meets the Kolmogorov-Smirnov criteria at the 5% alpha level: a significance value > 0.05 indicates that the data are normally distributed.

3.6. Result of the coefficient of determination test

The coefficient of determination (R^2) measures the extent to which the independent variable affects the dependent variable, or, in this case, the extent to which the dependent variable's contribution affects consumers' willingness to purchase. According to the following coefficient of determination test results, the coefficient of determination is 97.6%. Thus it demonstrates that 97.6% of customer demand in purchasing bamboo ulos bags from the store is impacted by internet marketing methods, with other factors accounting for the remaining 2.4%.

A coefficient of determination this high is unusual for consumer-behavior research and warrants caution in interpretation. Several factors plausibly contribute to it. First, the model uses a single predictor (online marketing strategy) estimated from a very small sample ($n = 20$), with few observations relative to the model's

complexity; as a result, sample-specific noise can be absorbed into the fitted line, which is known to produce unstable and often inflated R^2 estimates [26]. Second, because both variables were measured through the same self-administered questionnaire and instrument, the result may be affected by method bias, whereby the shared measurement method, rather than the true underlying relationship inflates the observed association between X and Y. Third, some conceptual overlap may exist between marketing-strategy items (e.g., price influences consumer buying interest) and purchase-interest items (e.g., items on price-quality match), which could inflate shared variance independent of any real causal effect. This result should therefore be treated as indicative rather than definitive; future studies should replicate the model with a larger, more heterogeneous sample, multiple predictor constructs, and, where feasible, data collected through more than one method (e.g., combining self-reported attitudes with actual purchase records) to reduce the risk of common method bias.

3.7. Results of simple linear regression analysis

The goal of linear regression analysis is to predict the value of Y based on X and to measure the degree to which two variables are related. The F test's value of 0.000, which is less than the 0.05 level, shows that the independent factors collectively influence consumers' purchase intention.

3.8. Partial test results

At a significance level of 0.05, the t-test tests whether the independent variable has a significant partial effect on the dependent variable. In this scenario, the SPSS analysis shows a p-value of 0.000 for the marketing strategy variable, well below the specified threshold, indicating a significant influence on consumer purchasing intention. $Y = 38,200 + 1,000(X)$ is the regression formula.

4. Conclusion

The digital marketing approach has a significant positive impact on consumer purchase interest in woven bamboo products, particularly bamboo ulos bags marketed by Etnobambu Craft. Digital marketing strategy and consumer purchase interest obtained mean scores of 77.8 and 76.4, respectively, both classified as “good” with the resulting regression model, $Y = 38,200 + 1,000X$. It indicated that promotions and discounts on social media are an effective strategy for attracting consumers. There are several important points to note. The sample included only 20 buyers, all from a single online store that had been operating for only a few weeks before the study began, thereby providing a basis for future research. Buyers from this newly established store may exhibit different purchasing behavior from customers of more established businesses with a larger and more stable customer base.

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