Consumer perception and label evaluation of craft beer in Brazil: A mixed-method study on preferences, packaging, and purchase drivers

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ABSTRACT

The craft beer market has been rapidly expanding worldwide, driven by consumer demand for unique sensory experiences, authenticity, and distinctive packaging. However, limited evidence exists on consumer perceptions in Latin America, particularly in Brazil, where the sector has grown significantly in recent years. This study aimed to characterize Brazilian craft beer consumers and evaluate their perceptions of label and packaging attributes through a mixed-methods approach. A quantitative survey was conducted between March 2024 and May 2025 with 90 respondents, followed by three focus groups (26 participants) in November and December 2024. Survey results revealed a predominantly young, educated, and male profile, with frequent consumption of specialty beers and diverse preferences regarding styles, price, and packaging formats. K-Means clustering and PCA identified three consumer segments: *Enthusiasts* (38%), who value authenticity, premium styles, and detailed packaging; *Balanced* (40%), who integrate style and price considerations, favoring modern and informative labels; and *Pragmatics* (22%), who are more price-sensitive and prefer minimalist packaging. Focus group discussions reinforced these clusters and highlighted three major drivers of purchase intention: clarity of label information, visual identity and storytelling, and alignment with consumer values such as authenticity and accessibility. Practical implications include the need for breweries to design differentiated packaging strategies for distinct consumer segments, while theoretical contributions advance knowledge of consumer behavior in emerging craft beer markets. Limitations of sample size and representativeness suggest avenues for future research.

1. Introduction

Beer is one of the oldest fermented beverages in human history, with archaeological evidence suggesting its production as early as 4000–6000 BC. (Hornsey, 2016; McGovern, 2017). Throughout ancient civilizations, it was linked not only to nutrition but also to rituals and social practices, reinforcing its cultural relevance across societies (Bamforth, 2020). In Brazil, beer production began in the 19th century with strong European influence but remained artisanal until the 1870s, when industrialization introduced adjunct cereals such as rice and corn to overcome local agricultural and climatic constraints (Ferreira et al., 2021; Morado, 2009). While this historical background underscores the deep cultural role of beer, contemporary research must focus on present-day consumer dynamics, which are being reshaped by the expansion of craft and specialty beers.

Over the past two decades, the global beer industry has undergone significant transformations with the emergence of the craft beer segment. Countries such as the United States, Mexico, Italy, South Africa, and the United Kingdom have witnessed rapid growth in small-scale breweries and a diversification of consumer profiles (Martinez, Silva, and Dias, 2022; Bruwer, Saliba, and Miller, 2012; Gómez-Corona et al., 2021). In the U.S., craft beer consumption is often associated with authenticity, innovation, and social identity (McMillan, Aspler, and Bruwer, 2020). In Mexico, consumers perceive craft beers as cultural symbols tied to national ingredients and traditions (Gómez-Corona et al., 2021). Similar patterns are observed in Europe, where Italian and British consumers emphasize sensory quality, brand storytelling, and packaging design (Garcia et al., 2021; Magnier, Schoormans, and

Mugge, 2016). In South Africa, craft beer has been linked to socioeconomic differentiation and aspirational consumption (Martinez et al., 2022). These findings suggest that while the drivers of craft beer consumption are heterogeneous across regions, common elements such as authenticity, sensory novelty, and premiumization consistently emerge.

In Brazil, the craft beer market has expanded considerably, with over 1800 breweries registered in 2023, reflecting a 6.8 % annual growth rate (MAPA, 2024). Despite this growth, Brazilian legislation still lacks a clear definition of "craft beer," and production volume is often used as the main criterion by industry associations (Abracerva; Fernandes, 2017). Previous research highlights differences in raw material quality, brewing methods, and marketing narratives between industrial and artisanal beers, which directly influence cost, consumer perception, and purchase motivation (Matos, 2011; Ferreira and Faria, 2019; Leal et al., 2021). At the same time, studies show that consumers of specialty beers value not only taste and aroma but also storytelling, packaging, and symbolic attributes such as sustainability and authenticity (Silva, Santos, and Lima, 2023; Kwak, Kim, and Hwang, 2020). This multifaceted consumption pattern calls for deeper investigation into how Brazilian consumers evaluate labels and packaging, and how these perceptions guide purchasing decisions.

Packaging has evolved from a functional role of protection and preservation to a strategic marketing tool that influences consumer choice (Negrão & Camargo, 2008; Wybenga, Berg, and Seiders, 2023). Research demonstrates that label attributes—such as typography, color palette, and sustainability claims—directly affect perceived quality and willingness to pay (Magnier and Crié, 2015; Magnier et al., 2016). In beverages such as beer and wine, packaging not only conveys technical information (e.g., alcohol content, IBU, and origin) but also creates emotional and cultural connections that shape consumer trust and brand differentiation (Bruwer and Lesschaeve, 2012; Morris, Jasso-Pinzon, and Thomé, 2016). Nevertheless, there is still a scarcity of studies analyzing Brazilian consumers' reactions to specific label elements in craft beers, particularly using integrated quantitative and qualitative approaches.

Although previous works have investigated general consumer profiles in Latin America (Gómez-Corona et al., 2021; Martinez et al., 2022), limited evidence exists on how Brazilian consumers segment themselves based on packaging and label perception. Important research gaps remain regarding (i) how consumer demographics and consumption frequency shape preferences for style, price, and packaging, (ii) how label design elements such as storytelling and informational clarity affect purchase intention, and (iii) how different consumer segments interpret packaging attributes. Understanding these aspects is essential not only for breweries aiming at product differentiation but also for advancing theoretical frameworks on consumer behavior in emerging craft beer markets.

Therefore, this study aims to characterize Brazilian craft beer consumers and evaluate their perceptions of labels and packaging attributes through a mixed-methods approach. The following research questions guided the investigation: (1) What are the sociodemographic and behavioral characteristics of Brazilian craft beer consumers? (2) How do consumers perceive different label and packaging attributes? (3) Which factors most strongly influence their purchase decisions? and (4) How can these insights be used to inform segmentation strategies and practical recommendations for breweries and marketers?

2. Methodology

This research was divided into two main stages. The first stage aimed to assess the profile of specialty beer consumers through an online questionnaire. The second stage involved focus group sessions to evaluate perceptions of packaging and labels. The structure of this section follows these two stages, including subsections on instrument design, data collection, and analysis.

2.1. Profile of specialty beer consumers (Quantitative survey)

A structured questionnaire was developed based on Porral et al. (2018), targeting individuals over 18 years old who reported consuming craft beer at least once a month. The questionnaire (Table 1) included demographic variables (gender, age, marital status, household size, employment, income, education), consumption behavior (frequency, duration of consumption, style preference, place of consumption), and purchasing drivers (price, style, label information, packaging type, average price paid).

Table 1 presents the complete list of questions and response types included in the survey. This ensures transparency and replicability of the study design.

The survey was made available via Google Forms and distributed through email, social media platforms, and instant messaging between March 2024 and May 2025. The extended data collection period was justified by two factors:

(i) to obtain an adequate number of valid responses, since the research was disseminated organically rather than through paid panels;

(ii) to capture seasonal variations in beer consumption patterns, relevant for a product strongly associated with events, festivals, and summer or end-of-year occasions.

Inclusion criteria required respondents to (i) be at least 18 years old, (ii) be consumers of craft beer, and (iii) provide complete answers to the

Table 1
A questionnaire was used to assess the profile of specialty beer consumers.

Question	Type of Response
Gender	Single choice (male, female, prefer not to say)
Age	Single choice (18–25, 26–35, 36–45, 46–55, 56–65, over 66)
Number of people in the household	Single choice (1, 2, 3, 4, 5 or more)
Marital status	Single choice (single, married/cohabiting, divorced, widowed, other, prefer not to say)
Employment status	Single choice (student, civil servant, service provider, micro-entrepreneur, private sector employee, unemployed, retired, other)
Household income	Single choice (up to $ 0.60; $ 0.61–1.00; $ 1.01–2.00; over $ 2.00)
Education	Single choice (incomplete elementary, completed elementary, incomplete secondary, completed secondary, incomplete higher education, completed higher education, specialization, master's, doctorate, post-doctorate)
Frequency of craft beer consumption	Single choice (daily, more than once a week, once a week, more than once a month, once a month, less than once a month)
How long have you been consuming craft beer?	Single choice (less than 1 year, 1–5 years, 5–10 years, over 10 years)
Type of beer consumed	Single choice (only specialty beers, both specialty and regular beers)
The main factor in the purchase decision	Multiple choice (beer style, price, other)
Preferred craft beer style	Multiple choice (pilsen, american lager, pale ale, weiss, do not know/no preference)
Importance of food pairing when purchasing	Single choice (yes, no, sometimes)
Place of consumption	Multiple choice (at home, outside the home, no preference)
Label information is considered important.	Multiple choice (bitterness, color, alcohol content, type of malt, "pure malt" label, sustainability, awards, indifferent)
Preferred packaging	Multiple choice (290 mL can, 350 mL can, 275–355 mL long neck bottle, 350 mL bottle, 473–550 mL tall can, 600 mL bottle, 1000 mL bottle)
Average price paid	Single choice (less than $1.20, $1.20–2.00, $2.00–2.80, $2.80–3.60, $3.60–4.40, more than $4.40)

questionnaire. Exclusion criteria eliminated incomplete or duplicate responses. A total of 90 valid responses were obtained, representing a convenience sample. This limitation is acknowledged and discussed later in the paper in terms of representativeness and generalizability.

2.2. Focus groups (Qualitative stage)

The qualitative stage was designed to capture in-depth perceptions of packaging and labels of craft beers. It followed three main steps: selection of packaging, recruitment of participants, and data collection.

2.2.1. Selection of packaging

Four craft beer brands were selected in November 2024 from supermarkets in Campo Mourão (PR, Brazil). The criteria followed Dantas et al. (2011), prioritizing (i) variation in label color, (ii) inclusion of ingredient information, and (iii) distinct design patterns. This ensured that participants could evaluate diverse visual and informational elements.

Table 2 presents the detailed description of each package (A-D), including bottle characteristics, front and back label design, imagery, and information content. By explicitly linking the methodology to Table 2, transparency in package selection and evaluation is guaranteed.

2.2.2. Participant recruitment

Recruitment questionnaires were disseminated via email, social media, and messaging apps. Inclusion criteria required participants to (i) be at least 18 years old, (ii) consume craft beer at least once a month, (iii) habitually read labels when purchasing, and (iv) purchase beer in supermarkets. From these criteria, 26 participants were selected and divided into three groups (up to 10 people each).

2.2.3. Data collection

Focus group sessions were conducted in November and December 2024, each lasting 60–90 min, following guidelines by Carneiro et al. (2010), Dantas et al. (2011), and Schuch et al. (2019). At the beginning, participants were informed of the objectives, assured anonymity, and encouraged to express opinions freely.

Each session started with a discussion about general perceptions of craft beer packaging. The four beer packages were then presented in randomized order. The moderator guided the conversation with a semi-structured script, including questions such as:

- Do you pay attention to the labels of your craft beers?
- What information do you look for?
- What catches your attention the most?
- Do you check malt type, alcohol content, or certifications?
- What is your opinion on quality seals, artisanal claims, or awards?
- Do you verify production origin or food pairing suggestions?
- What is the decisive factor in purchasing a craft beer?
- Would you be willing to pay more for a differentiated product?

Sessions were audio-recorded and transcribed verbatim. Transcriptions were organized and processed with SpeakApp® software.

2.3. Data analysis

Data analysis was conducted separately for the survey and the focus group stages, and later integrated through triangulation.

2.3.1. Quantitative analysis

Survey responses were tabulated in Microsoft Excel and analyzed statistically. To verify associations between categorical variables, contingency tables were created and chi-square tests of independence (χ^2) were performed using Statistica 12 software. Results were evaluated with 5 % significance ($\alpha = 0.05$). Values of χ^2, degrees of freedom, and p-values were reported.

Table 2
Description of the packaging and labels of the analyzed samples.

Code	Type of Packaging	Label	Images	Information
A	Amber glass bottle, 23 cm (height) and 6.5 cm (diameter). Black metal cap. 600 mL content. Neck ring: 6.5 cm wide and 1.5 cm high. Embossed brand name between the label and the bottleneck.	Front: black background with gold, yellow, and white lettering; oval shape, 8.5 cm wide and 10 cm high. Back: black, white, and yellow background with black, white, and yellow text; square, 7.5 cm wide and 9 cm high.	Front: Araucaria pine, cinnamon sticks, raspberries, and wheat. Back: beer glass, hops, and cutlery.	Front: wheat beer with cinnamon and red fruits. Back: product description; nutritional information; consumption suggestion (temperature and food pairing); alcohol content: 4.5 %; scale indicating body, malt, and bitterness; list of ingredients and allergens; manufacturer information; QR code with brand, alcohol consumption, and health details.
B	Amber glass bottle, 24 cm (height) and 7.0 cm (diameter). Golden metal cap. 600 mL content. Neck ring: 6.0 cm wide and 2.0 cm high.	Front: black with red and a central oval area in yellow and orange; lettering in red, green, yellow, and brown; 10 cm wide and 10.5 cm high. Back: orange, yellow, and light yellow background with brown lettering; 6.5 cm wide and 9.0 cm high.	Front: ornaments, bear, bees, and flowers. Back: image of a man, described in text as one of the honey producers used as an ingredient.	Front: wheat beer with honey; alcohol content: 5.5 %. Back: beer description and origin of the honey used; list of ingredients and allergens; manufacturer information; notice that sediments may be present at the bottom of the bottle; information in braille.
C	Amber glass bottle, 23 cm (height) and 7.0 cm (diameter). Golden metal cap. 600 mL content. Neck ring: 7.0 cm wide and 1.0 cm high.	Front: brown and gold frame with black, gold, and white lettering; 8.0 cm wide and 8.0 cm high; inner area in green, gold, and red. Two side labels, 3.5 cm wide and 5.0 cm high, with black text.	Front: ornaments, hops, malt, a representative image of a city, and a red ribbon. Sides: images representing a beer glass, malt, temperature, and alcohol content.	Front: pure malt pale ale beer. Sides: sensory characteristics, recommendation of ideal glass, serving temperature, IBU, and alcohol content: 5.6 %; list of ingredients and allergens; manufacturer information.
D	Amber glass bottle, 23.5 cm (height) and 7.0 cm (diameter). Black metal cap. 600 mL content. Neck ring: 6.0 cm wide and 2.0 cm high.	Front: black background, 9.5 cm high and 9.5 cm wide, gold details, white and gold lettering. Back: black and burgundy background, 6.5 cm wide and 8.5 cm high, gold details, white text.	Front: old still, gears, and a woman representing a princess wearing a burgundy dress, one hand holding playing cards, and the other on her hip. Back: gears and pressure gauges.	Front: blonde ale beer. Back: sensory characteristics; list of ingredients and allergens; ideal glass for consumption; serving temperature and IBU; alcohol content: 5.2 %; manufacturer information.

In addition, consumer segmentation was conducted using K-Means clustering ($k = 3$). Eight behavioral variables (consumption frequency, years of consumption, preferred style, price range, main purchasing driver, place of consumption, packaging preference, and importance of label information) were one-hot encoded and used as input. To facilitate visualization, Principal Component Analysis (PCA) was applied, enabling a two-dimensional representation of clusters.

Logistic regression and conjoint analysis were considered, but given the sample size ($n = 90$), their statistical power would be limited. Therefore, cluster analysis was deemed more appropriate for exploratory segmentation. This limitation is explicitly addressed in the discussion.

2.3.2. Qualitative analysis

Focus group transcripts were analyzed using thematic coding. Two researchers independently coded 20 % of transcripts to ensure reliability. Codes were then compared, and disagreements resolved by consensus, resulting in inter-coder validation. Final themes were established based on frequency, consistency, and depth of responses. Topics mentioned in at least two focus groups were included in the analysis. This procedure enhances the validity and credibility of findings.

Integration of quantitative and qualitative results was carried out through triangulation, contrasting survey-based profiles with themes from the focus groups.

2.4. Ethical considerations

The study was approved by the Research Ethics Committee of the Federal University of Technology - Paraná (protocol no. 75,895,523.9.0000.5547; approval statement no. 6.643.714). All participants signed informed consent and were guaranteed anonymity and confidentiality.

3. Results and discussion

The results obtained from the research are presented below. First, the consumer profile data for specialty beers is shown. Then, the findings from the focus group sessions are discussed. When appropriate, correlations and comparisons between both stages of the study are made.

3.1. Sociodemographic profile of consumers

The survey data revealed important characteristics of Brazilian craft beer consumers. Regarding gender (Fig. 1), the majority of respondents were male (67 %), while female consumers represented 33 %. This imbalance in consumption has also been reported in other studies, where men are traditionally more frequent consumers of beer products. However, recent international research shows a growing interest among women in specialty beverages, particularly in Mexico and Italy, where female consumers increasingly associate craft beer with identity, sociability, and cultural value (Gómez-Corona et al., 2021; García et al., 2021). Thus, although male predominance still characterizes the Brazilian market, the potential for female consumers should not be underestimated.

In terms of age (Fig. 2), the largest group of respondents were between 25 and 34 years old (42.2 %), followed by 35 to 44 years (28.9 %). Younger consumers (18–24 years) accounted for 15.6 %, while older groups (45–54 and above) made up less than 14 % combined. These results indicate that Brazilian craft beer consumption is dominated by younger adults, particularly millennials, which is consistent with patterns observed in the U.S. (McMillan et al., 2020) and South Africa (Martínez et al., 2022), where millennials represent the primary segment of the craft beer market.

Employment status (Fig. 3) showed that 72 % of respondents were formally employed, 14 % self-employed, 8 % students, and only 6 % unemployed or retired. This profile suggests that Brazilian craft beer consumers are largely active professionals with stable income sources, reinforcing the perception of craft beer as a product linked to purchasing power and leisure consumption. Similar employment-linked consumer profiles were reported in the United Kingdom and Italy, where employment status correlates positively with craft beer consumption frequency (Garcia et al., 2021).

Educational level (Fig. 4) further characterizes respondents as predominantly well-educated, with 61 % having completed at least undergraduate studies. This reflects the association between education and openness to new consumption experiences, as discussed by Magnier
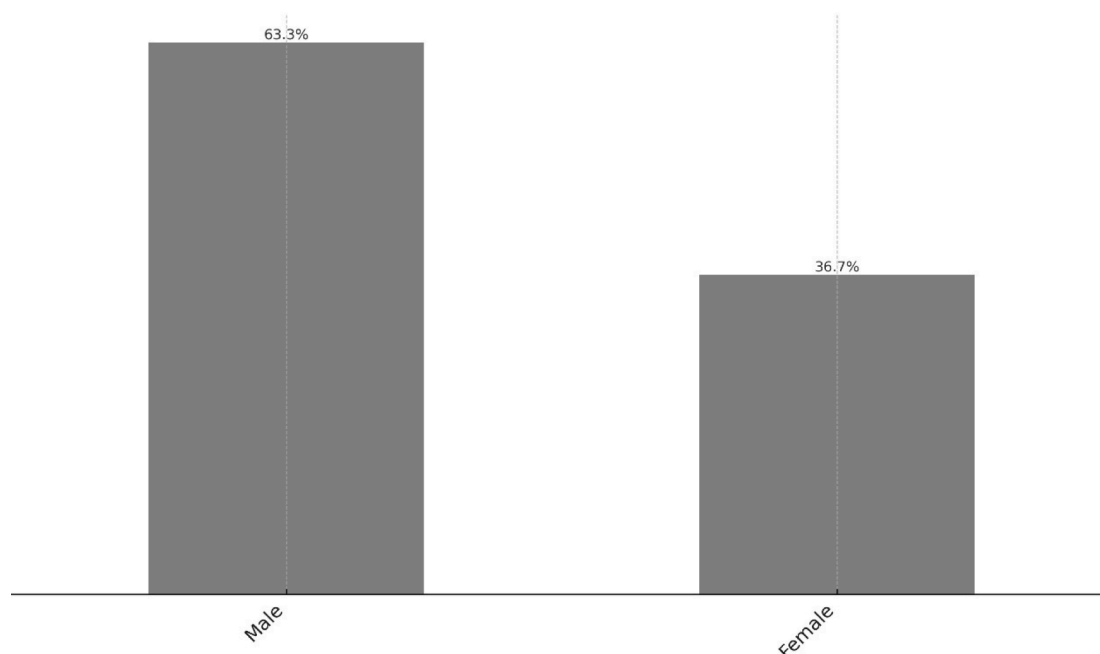

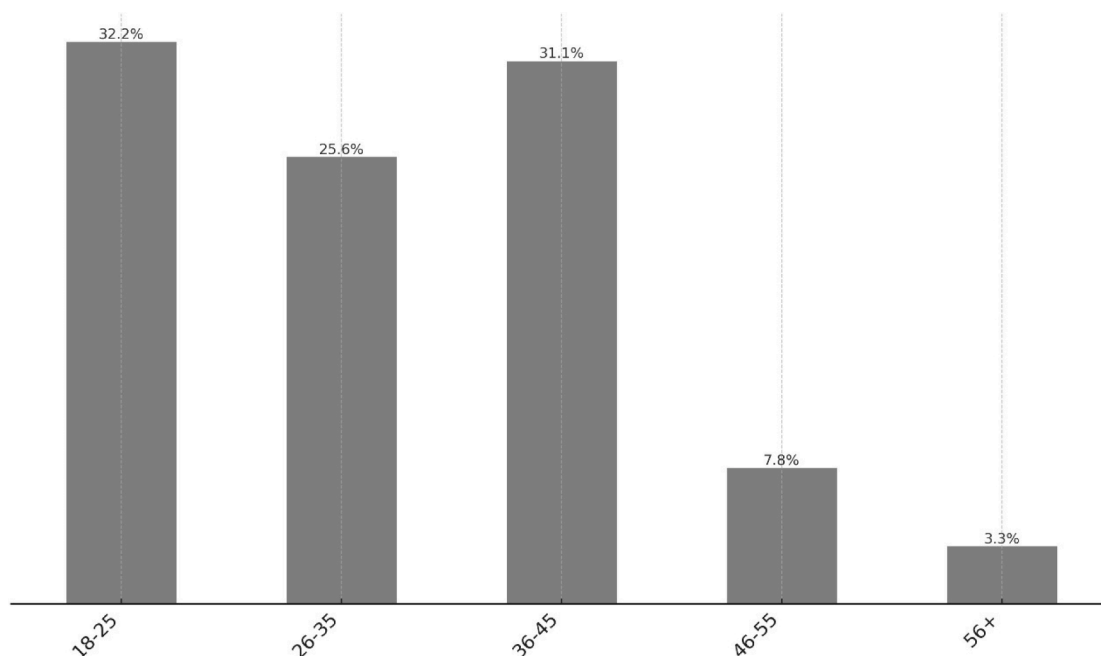**Fig. 1.** Gender distribution of respondents.

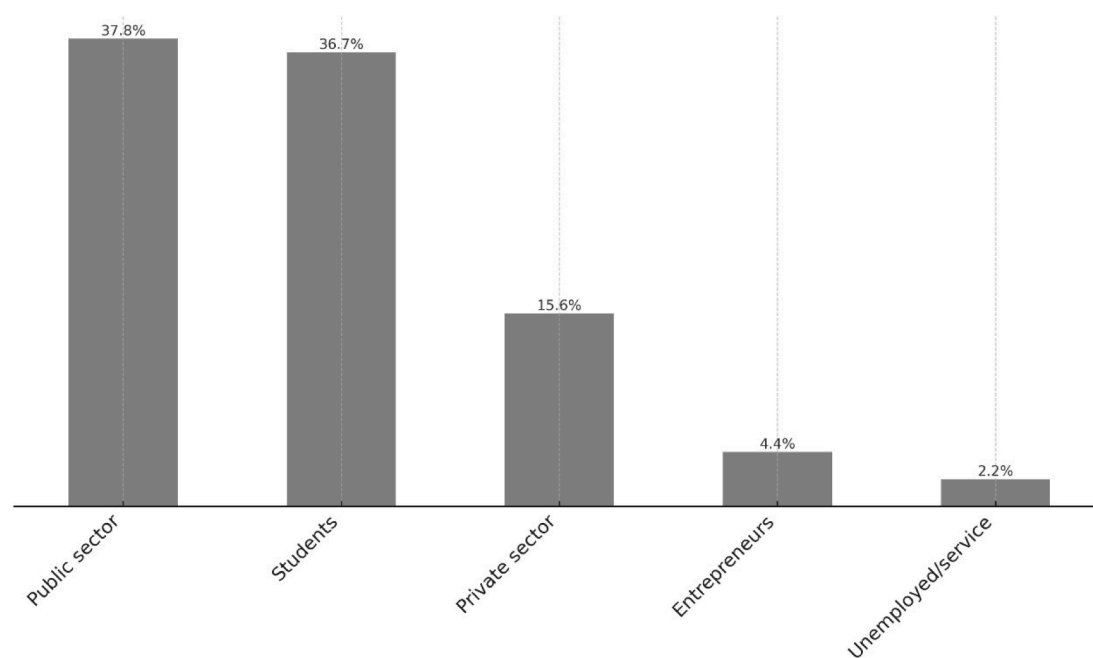**Fig. 2.** Age group distribution of respondents.

Fig. 3. Employment status distribution of respondents.

et al. (2016) in their analysis of sustainable packaging perceptions. Higher education levels have been linked internationally to greater appreciation of authenticity and product differentiation, as demonstrated in consumer studies in the U.S. and Europe (Kwak et al., 2020; Wybenga et al., 2023). In this sense, the high level of education among Brazilian consumers supports the interpretation that craft beer is perceived not only as a beverage, but also as an experiential and symbolic product.

Taken together, the sociodemographic profile outlined in Figs. 1–4 suggests that Brazilian craft beer consumers share similarities with global markets, where men, younger adults, and well-educated professionals dominate the consumption base. However, compared to countries such as Italy and South Africa, Brazilian consumers may demonstrate stronger price sensitivity (as discussed in Section 3.2), which highlights the importance of contextualizing sociodemographic variables with behavioral patterns.

3.2. Consumption patterns and purchasing behavior

The frequency of craft beer consumption among respondents is shown in Fig. 5. Almost half of the sample (48 %) reported consuming craft beer at least once a week, while 31 % indicated monthly consumption, and 21 % reported less than once per month. These results demonstrate a significant level of engagement with the product,
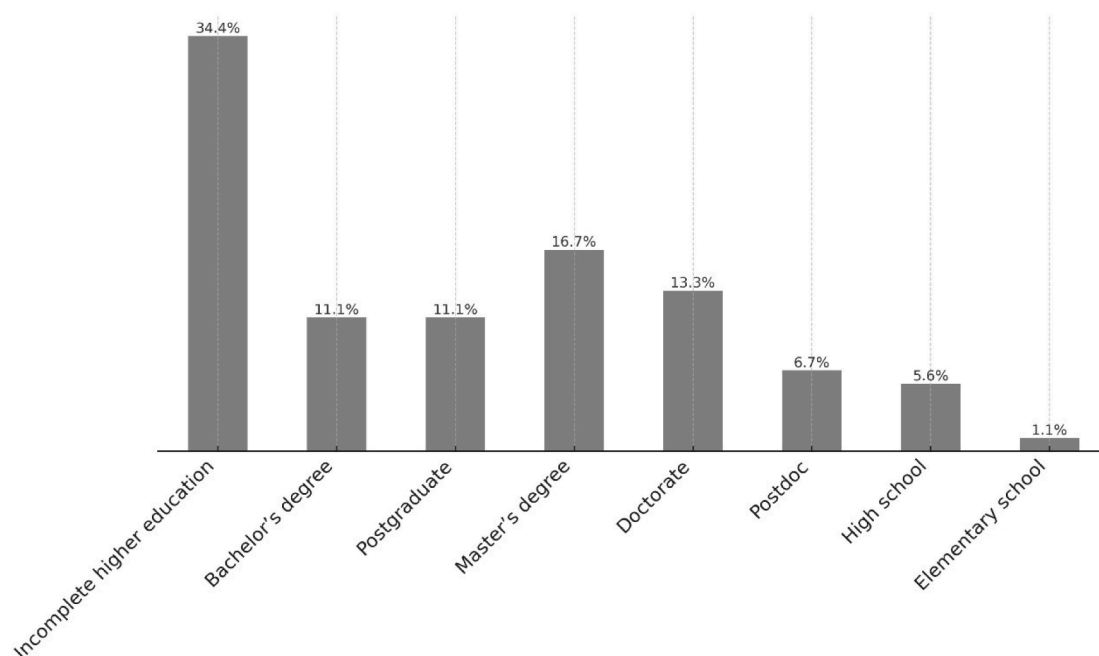
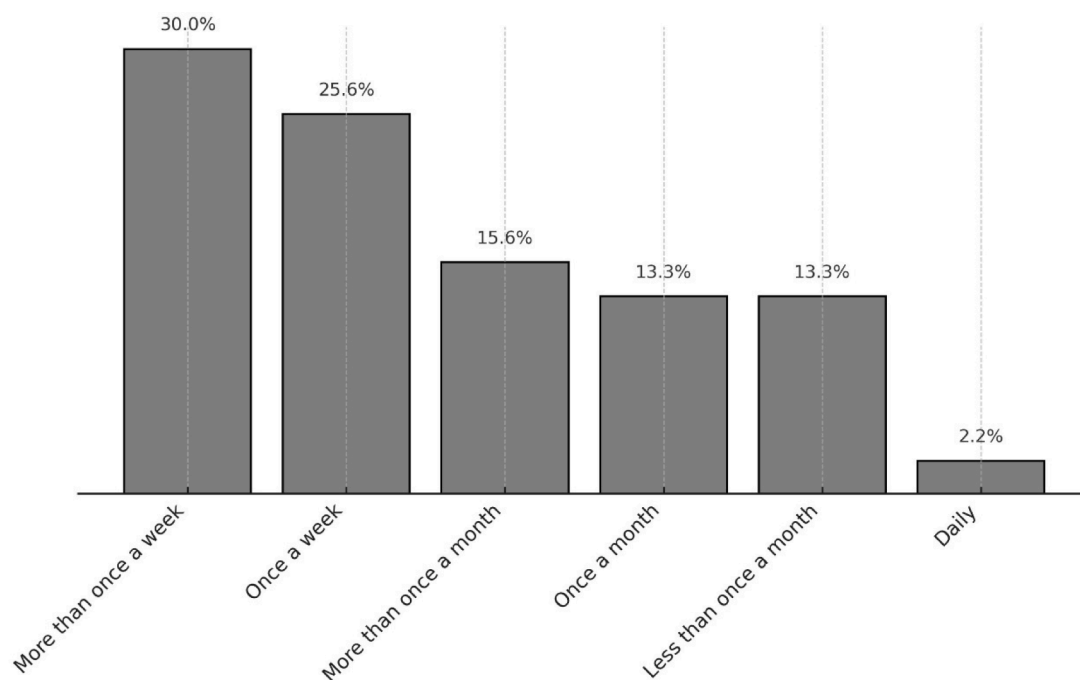**Fig. 4.** Educational level of respondents.

Fig. 5. Frequency of specialty beer consumption among respondents.

especially when compared with mainstream beer markets. Similar patterns were observed in studies conducted in the United States, where craft beer drinkers tend to show high frequency and brand loyalty (McMillan et al., 2020). In contrast, Gómez-Corona et al. (2021) reported that in Mexico, although interest in craft beer is increasing, consumption tends to be more occasional and linked to special occasions. This reinforces the idea that in Brazil, craft beer is not only part of social events but is also becoming integrated into routine consumption for certain segments.

When analyzing the decisive factors in beer purchasing (Fig. 6), 38 % of consumers identified beer style as the most influential attribute,

followed by price (31 %), packaging/label characteristics (22 %), and other factors such as promotions and availability (9 %). This demonstrates that intrinsic attributes such as style and flavor remain central, but extrinsic attributes such as packaging are also gaining importance. These findings are in line with European studies showing that labels and packaging design significantly affect perceived product quality and purchase intention (Magnier and Crié, 2015; Magnier et al., 2016). Interestingly, the 22 % who highlighted packaging reflect a growing global trend in which visual and informational cues serve as proxies for authenticity, sustainability, and storytelling (Wybenga et al., 2023).

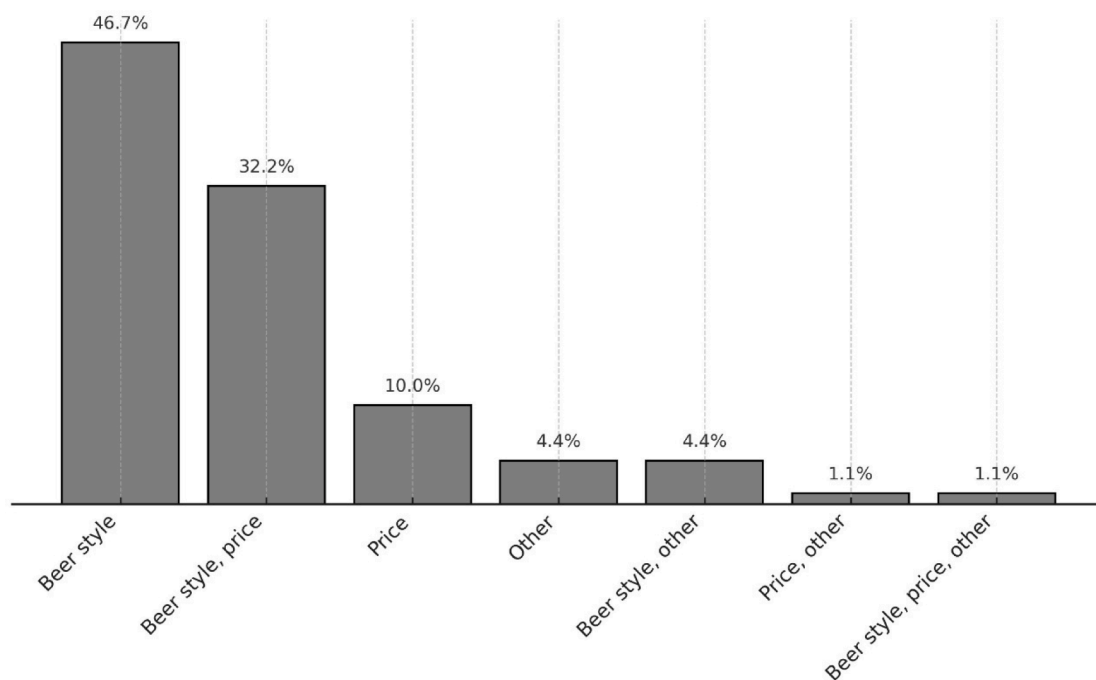Regarding the average price paid per unit, Fig. 7 shows that 67.8 % of

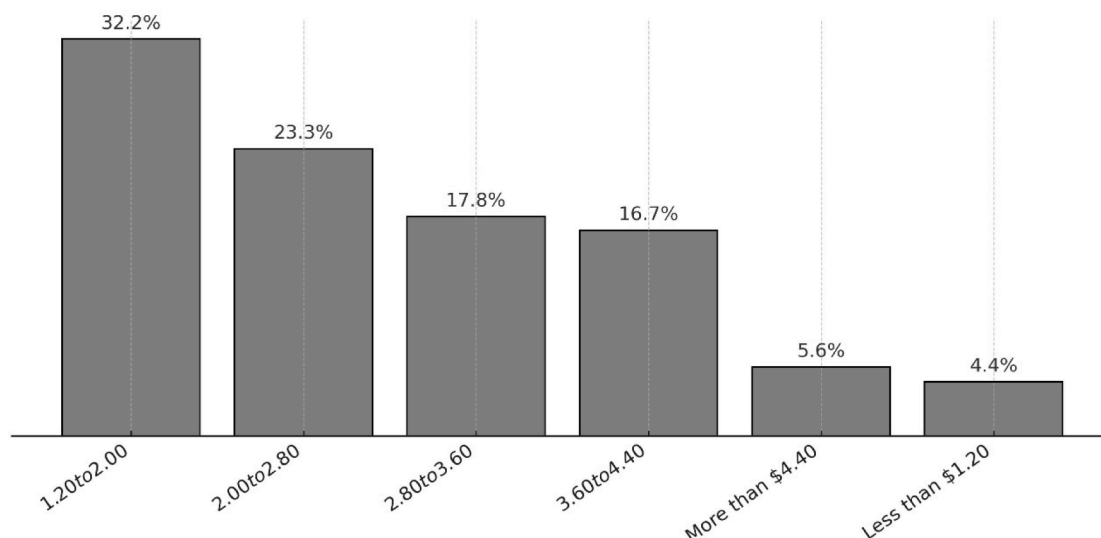**Fig. 6.** Decisive factor in respondents' beer purchasing decision.

Fig. 7. Price paid per unit at the time of purchase.

respondents reported paying more than USD 2.00, while 32.2 % paid less than or equal to this value. This distribution confirms that most Brazilian consumers accept craft beer as a premium product, although a significant portion remains within lower price ranges. To examine whether education level influenced willingness to pay, a chi-square (χ^2) test of independence was performed between education categories and price ranges ($\leq$ USD 2.00 and $>$ USD 2.00). The results were $\chi^2 = 4.66$; $df = 7$; $p = 0.70$. At a significance level of 5 % ($\alpha = 0.05$), since $p > 0.05$, the null hypothesis of independence cannot be rejected. Thus, no statistically significant association was found between education level and willingness to pay (Fig. 8).

This finding suggests that price sensitivity is present across different educational groups in Brazil. This result differs from research in South Africa and Italy, where Martínez et al. (2022) and García et al. (2021) found a positive relationship between education and higher willingness

to pay. In contrast, it resembles findings from Mexico, where Gómez-Corona et al. (2021) observed that symbolic attributes and cultural meanings of craft beer were stronger predictors of purchase than demographic or socioeconomic variables. This reinforces the idea that Brazilian consumers - similar to Mexican ones - evaluate craft beer more as a cultural and experiential good than as a purely economic product.

Taken together, the results presented in Figs. 5–8 confirm that style and price are the main decision drivers, while packaging/labels already play a secondary but growing role in consumer choice. Moreover, the absence of significant associations between education and willingness to pay highlights the widespread influence of price sensitivity, which will be further addressed in the consumer segmentation analysis (Section 3.3).
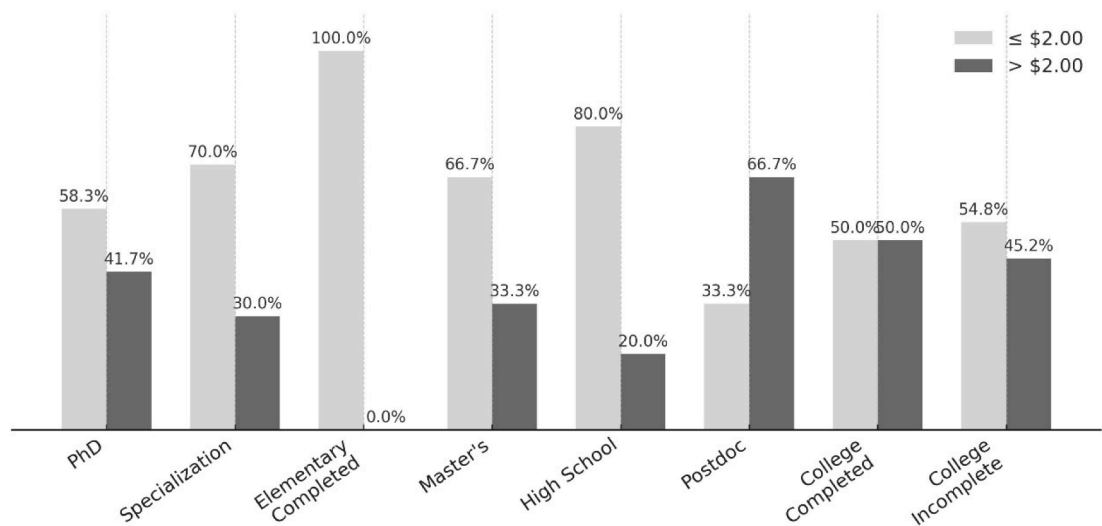
Fig. 8. Proportion of price ranges (≤$2.00 vs. >$2.00) according to education level.

3.3. Consumer segmentation

To further analyze consumer heterogeneity, cluster analysis (K-Means, $k = 3$) was applied, with results visualized through Principal Component Analysis (PCA) (Fig. 9). This procedure identified three distinct consumer segments that differ in their sociodemographic profiles, consumption behaviors, and attitudes toward packaging and price.

The groups were categorized as Enthusiasts, Balanced, and Pragmatics, reflecting their main purchasing drivers and preferences.

The Enthusiasts (38 %) represented the most engaged segment. They were predominantly young adults, with high education levels and higher consumption frequency. This group showed a strong preference for premium styles such as IPAs, stouts, and specialty lagers (Fig. 10), reporting willingness to pay above-average prices per unit. In terms of
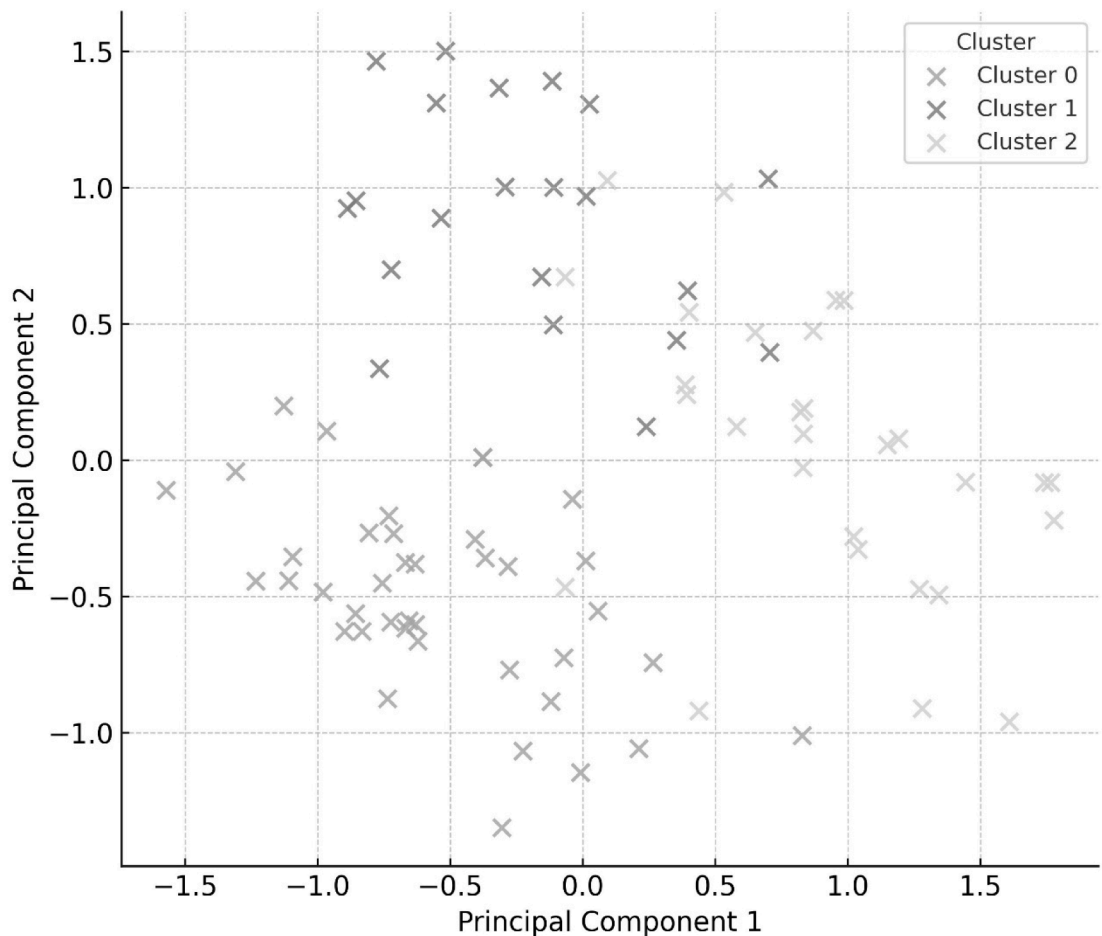

Fig. 9. Consumer segmentation of specialty beer drinkers using PCA and K-Means clustering.
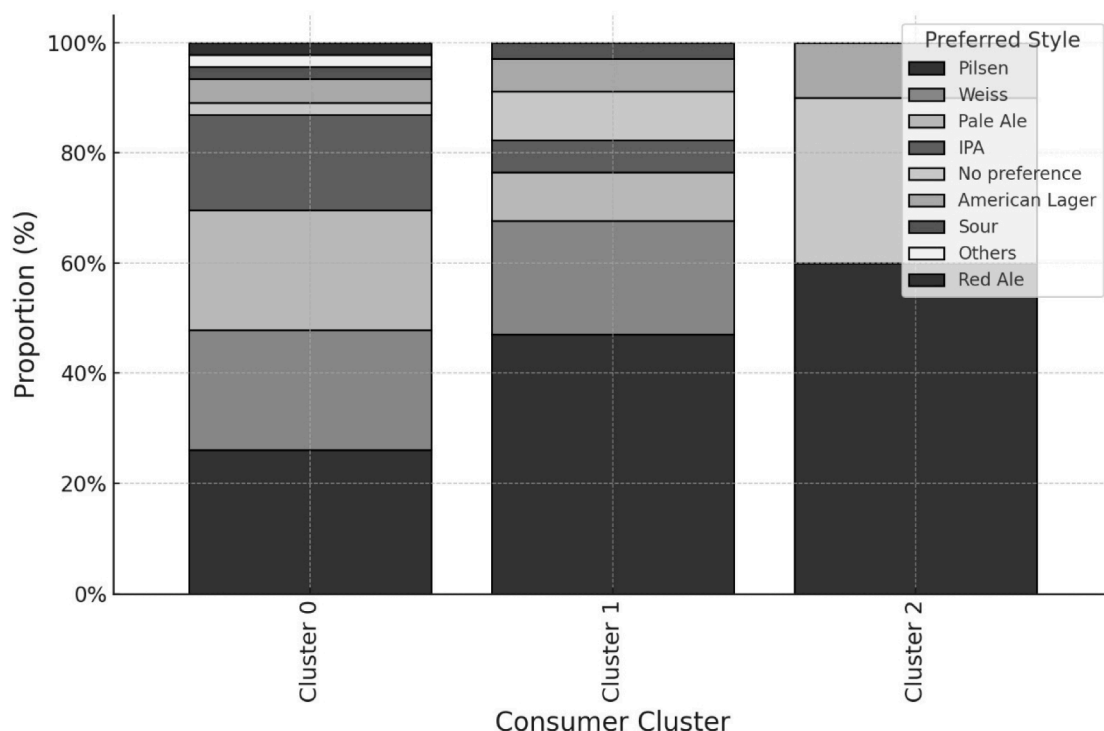
Fig. 10. Preferred beer style by cluster.

purchase drivers, Enthusiasts valued packaging and labeling details, especially those that conveyed authenticity, technical information (alcohol content, bitterness, origin), and storytelling (Fig. 11). This segment resembles findings in the United States and Europe, where authenticity-seeking and quality-driven consumers dominate the craft beer market (McMillan et al., 2020; Magnier et al., 2016). Their behavior confirms that premium consumers interpret packaging as a symbolic extension of product quality.

The Balanced segment (40 %) was the largest cluster. These consumers presented moderate consumption frequency and showed more diversified style preferences, ranging from lagers to wheat beers. They considered both style and price as decisive purchasing drivers, while

valuing packaging primarily for clarity of information and modern design. This segment reflects what Gómez-Corona et al. (2021) observed in Mexican consumers: the coexistence of practical considerations (price and style) with cultural-symbolic factors (authenticity and modernity). Balanced consumers are not exclusively motivated by premiumization, but they expect functional and accessible packaging that facilitates product comparison and reinforces trust.

The Pragmatics (22 %) were the smallest group but reflected an important consumer base. They were more price-sensitive, with lower purchasing frequency, and preferred traditional or familiar beer styles. Packaging and labeling attributes were of secondary importance for this group, who tended to favor minimalist design and lower-priced
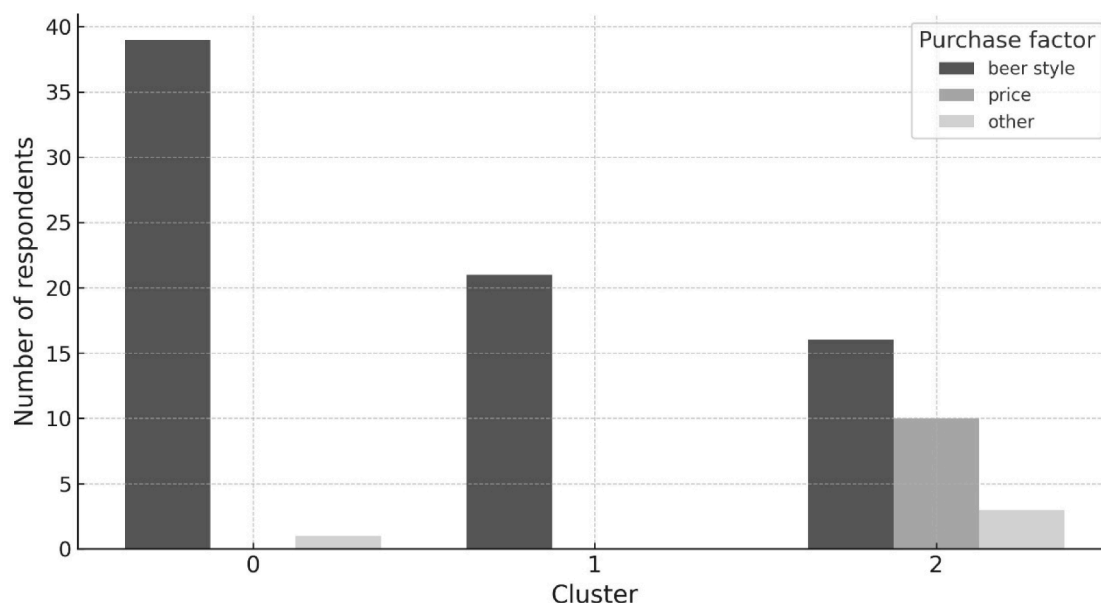

Fig. 11. Main purchase decision factor by cluster.

products. Their responses confirm that price is a fundamental constraint for a segment of Brazilian consumers. Similar "price-driven" clusters have been identified in South Africa (Martínez et al., 2022) and Italy (García et al., 2021), though in those markets, price sensitivity was more strongly associated with specific sociodemographic groups, such as lower-income consumers. In Brazil, however, this trait appears to be more generalized across different profiles, reinforcing findings from Section 3.2.

Taken together, the three clusters (Figs. 9–11) demonstrate that the Brazilian craft beer market is heterogeneous and segmented not only by sociodemographic characteristics, but also by values and expectations regarding packaging and authenticity. While Enthusiasts drive demand for premium products with elaborate labels, Balanced consumers require a mix of price accessibility and information clarity, and Pragmatics emphasize affordability above all. These results reinforce international literature indicating that consumer segmentation in craft beer is dynamic and multifactorial, shaped by both intrinsic product attributes and extrinsic packaging cues (McMillan et al., 2020; Gómez-Corona et al., 2021; Magnier et al., 2016).

3.4. Focus group findings - packaging and label perceptions

The focus group discussions provided detailed insights into consumer perceptions of the packaging and labels of the selected craft beers. The analysis was based on the four samples described in Table 2, which varied in terms of design, color, and informational content, serving as stimuli for the debates. The qualitative results were organized into thematic categories, supported by the summaries presented in Tables 3–6.

One of the strongest themes to emerge was the importance of visual identity and design elements. Participants frequently referred to colors and graphics as central to their first impressions of quality and authenticity. As one participant explained: *"The colorful label makes me curious to try the beer, it looks artisanal"* (Group 1, male, 34). Others, however, preferred minimalist and elegant labels, associating them with sophistication: *"When the label is simple and clean, it gives me more confidence in the product"* (Group 2, female, 29). These divergent views, summarized in Table 3, confirm that Brazilian consumers express heterogeneous design preferences, similar to findings in Italy and the UK, where minimalist packaging is linked to premium positioning, while creative visuals are associated with authenticity and local identity (García et al., 2021; Magnier et al., 2016).

Equally relevant were perceptions regarding informational content on labels. Alcohol content, bitterness (IBU), and origin were the most frequently cited attributes, with several participants emphasizing the need for transparency. For example: *"I always check the ABV, if it is not clear, I don't buy it"* (Group 1, female, 27). Another stated: *"If the information is confusing, I don't trust the beer, even if the brand is known"*

(Group 2, male, 32). These concerns, systematized in Table 4, reflect the importance of clarity and credibility, reinforcing international findings that transparent labeling fosters consumer trust (Magnier et al., 2016; Wybenga et al., 2023).

The discussions also revealed strong emotional and symbolic associations. Labels that communicated authenticity, regional identity, or storytelling elicited particularly positive reactions. For instance, one participant said: *"This label tells me the beer has a story, it is not just another industrial product"* (Group 3, male, 41). Another highlighted cultural identification: *"When the label shows something from Brazil, I feel more connected to the product"* (Group 3, female, 38). These symbolic dimensions, reflected in Table 5, resonate with the Enthusiast cluster identified in the survey and mirror results from Mexico, where consumers value cultural references and authenticity in craft beer (Gómez-Corona et al., 2021), and the U.S., where storytelling enhances emotional engagement (Kwak et al., 2020).

Finally, price considerations emerged as decisive across all groups. While some participants reported willingness to pay more for well-designed and informative labels, the majority emphasized budgetary constraints. As one participant summarized: *"I look at the label, but in the end it depends if the price matches my budget"* (Group 2, female, 29). These findings, compiled in Table 6, reinforce the survey evidence of the Pragmatic segment, where affordability outweighs visual or symbolic attributes. This contrasts with high-income markets, such as the U.S. and UK, where premium consumers dominate (McMillan et al., 2020), but is consistent with South Africa, where price sensitivity remains a structural barrier (Martínez et al., 2022).

Overall, the focus group findings deepen and complement the survey results by showing that Brazilian consumers interpret packaging and labeling through a combination of visual, informational, and symbolic cues, while also weighing them against economic constraints. This multidimensional perspective reinforces the importance of considering both cultural meanings and affordability in understanding craft beer choices.

3.5. Integration, limitations, and implications

The integration of survey and focus group findings provides a comprehensive picture of Brazilian craft beer consumers. The three consumer clusters identified in the quantitative analysis, Enthusiasts, Balanced, and Pragmatics, were consistently reflected in the qualitative discussions. Enthusiasts corresponded to participants who valued authenticity, storytelling, and detailed labels. Balanced consumers matched those who prioritized clarity of information and modern design, while Pragmatics were aligned with participants who consistently highlighted price as the decisive factor. This triangulation strengthens the validity of the study, even considering its exploratory nature.

Some limitations must be acknowledged. First, the study relied on a convenience sample (90 survey respondents and 26 focus group participants), which limits generalizability. The sample is skewed toward

Table 3
Summary of the most frequent responses from focus group sessions for Label A.

Item	Impressions	Responses
Label, colors, and figures	Positive	Minimalist and harmonious label, color combination, adequate contrast, and pleasant font on the front label.
	Negative	Small font size on the back label; disproportionate information.
Information	Positive	Presence of nutritional information; sensory scales (body, bitterness); indication of ideal temperature; food pairing suggestions; complete info.
	Negative	Absence of alcohol content and bitterness on the front panel.
General aspects	Positive	Elegant, visual identity consistent with the brand line, recognizable from a distance, suitable for gifting.
	Negative	—

Table 4
Summary of the most frequent responses from focus group sessions for Label B.

Item	Impressions	Responses
Label, colors, and figures	Positive	Colorful and eye-catching label; pleasant graphic elements.
	Negative	Excessive elements, visual pollution.
Information	Positive	Visible alcohol content on the front panel; brand story on the back label; mention of ingredient origin; braille info on the back.
	Negative	No bitterness info on front; excessive text on back; uneven info distribution; no nutritional information.
General aspects	Positive	Easy visual recognition through graphic elements; suitable for gifting.
	Negative	—

Table 5

Summary of the most frequent responses from focus group sessions for Label C.

Item	Impressions	Responses
Label, colors, and figures	Positive	Traditional design.
	Negative	Color combination resembles olive oil packaging; label compared to mainstream beers.
Information	Positive	Presence of bitterness level; recommended ideal temperature, visible information; and mention of beer style.
	Negative	No nutritional table; limited ingredient details; poor info distribution; small font size.
General Aspects	Positive	—
	Negative	Simple style; weak visual identity, associated with lower-quality products; considered ugly, horrible, and poor.

Table 6

Summary of the most frequent responses from focus group sessions for Label D.

Item	Impressions	Responses
Label, colors, and figures	Positive	—
	Negative	Excessive illustrations, poor color combination, and an inappropriate female figure unrelated to the brand identity.
Information	Positive	Alcohol content, bitterness, ideal temperature, and recommended glass type included on back panel.
	Negative	Limited front panel info; missing alcohol content and bitterness upfront; no nutritional table; small, misaligned fonts; overuse of "stories" on the back.
General Aspects	Positive	—
	Negative	Confusing aesthetics; label associated with wine coolers or catuaba (a sweet Brazilian alcoholic beverage).

frequent consumers, not capturing occasional drinkers. Second, although statistical methods such as chi-square, cluster analysis, and PCA were applied, more advanced techniques like logistic regression or conjoint analysis could not be used due to sample size constraints. Third, the study was conducted in one region of Brazil, which restricts geographic representativeness. Future research should address these limitations by expanding sample size, applying probabilistic methods, and including comparative studies across different regions of Brazil and Latin America.

This study contributes to the academic literature by extending consumer segmentation of craft beer to the Brazilian context, which remains underexplored. It demonstrates that while authenticity, storytelling, and packaging clarity are universal drivers of consumption, price sensitivity emerges as a more dominant factor in Brazil than in high-income markets. These findings enrich theoretical models of consumer behavior in emerging economies, highlighting the role of cultural identity and affordability as joint determinants.

The results also provide actionable insights for breweries, marketers, and policymakers. Breweries can segment their packaging strategies: premium labels with storytelling and detailed information for Enthusiasts; modern and clear designs for Balanced consumers; and minimalist, cost-efficient solutions for Pragmatics. Policymakers should consider implementing clearer labeling regulations to strengthen consumer trust and ensure transparency. For marketers, highlighting regional identity and authenticity may increase consumer engagement, particularly among Enthusiasts, while maintaining affordable price ranges remains essential to reach Pragmatics.

The integration of quantitative and qualitative data positions the Brazilian craft beer market within the global context, revealing both similarities with international patterns and unique challenges related to

price sensitivity and cultural identity.

4. Conclusion

This study explored Brazilian consumer perceptions of craft beer through a mixed-method approach, combining a quantitative survey with qualitative focus groups. By triangulating these findings, the research provides a comprehensive view of how sociodemographic factors, purchasing behavior, and packaging and labeling attributes influence decision-making in this emerging market. The results confirm that Brazilian consumers are heterogeneous and segmented into three main groups: Enthusiasts, Balanced, and Pragmatics, each characterized by distinct expectations regarding style, price, and packaging.

The integration of both stages demonstrated that packaging and labeling are perceived multidimensionally. Visual identity and storytelling foster authenticity and cultural identification, while clarity of information ensures trust. At the same time, price remains the ultimate determinant across all groups, highlighting the tension between symbolic value and economic accessibility. Compared to international markets, Brazilian consumers resemble those in Mexico in valuing cultural and narrative elements, but diverge from contexts such as Italy and South Africa, where higher education and income are more strongly associated with willingness to pay. This emphasizes the need to contextualize global frameworks of craft beer consumption within the realities of emerging economies.

From a practical perspective, the study suggests clear directions for breweries and marketers. Enthusiasts should be targeted with premium packaging that emphasizes storytelling, authenticity, and detailed information. Balanced consumers expect modern and transparent designs that facilitate product comparison and credibility. Pragmatics require cost-efficient, minimalist solutions that align with budget constraints. Policymakers may also benefit from these insights by fostering clearer labeling regulations that promote transparency and support consumer trust. For researchers, future studies should expand sample sizes, employ probabilistic designs, and explore cross-regional and cross-country comparisons to strengthen generalizability.

The findings contribute to academic literature by positioning the Brazilian craft beer market within a global comparative framework while offering actionable implications for industry and policymakers. By revealing the interplay of authenticity, information, and affordability, this study underscores that successful strategies in emerging markets must balance cultural identity with economic accessibility.

Ethical statements

The research involving human participants was conducted in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration and its later amendments. All procedures involving participants were reviewed and approved by the Research Ethics Committee for Human Subjects of the Federal University of Technology - Paraná (UTFPR) under protocol number **75,895,523.9.0000.5547** and approval statement number **6.643.714**.

All participants provided informed consent prior to participation. The online survey included a consent form on the first page, and verbal consent was obtained before the focus group sessions. Participation was entirely voluntary, and all data were anonymized to ensure confidentiality and privacy.

No animals were involved in this study. The authors declare no conflicts of interest.

CRediT authorship contribution statement

João Victor de Souza Camiloti: Writing – original draft, Validation, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Nathália Letícia Hernandez Brito:**

Writing – review & editing. **Karina Pinheiro Martins:** Writing – review & editing. **Flávia Aparecida Reitz Cardoso:** Writing – review & editing, Supervision, Methodology, Investigation, Data curation, Conceptualization. **Bogdan Demczuk Junior:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

No data was used for the research described in the article.

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