

Article

Kano Model for Determination of Charm Attributes of Unboxing Videos

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Abstract: The increase in the number of bulk stores presents the growing awareness of environmental and sustainable development. Using the Kano model, we determined the correlation between dimensions and preferences in the user experience of unboxing videos. Three major dimensions of unboxing videos were identified: information receptiveness, video benefits, and emotional appeal. Consumer experience was determined to classify different types of unboxing video quality: Must-be, Attractive, and Indifferent. The effect of unboxing videos on consumer experience was also evaluated to design unboxing videos to be attractive and meet user needs. The results of this study are an important basis for the design and production of unboxing videos and the establishment of design strategies for different quality types to enhance user preference and satisfaction.

Keywords: Audiovisual Experience, Sustainable Consumption Attitude, Kano Model

1. Introduction

Communication through digital media is a strategy in modern advertising. YouTube Taiwan was launched in 2007 and signed content supply agreements with multiple companies which allowed for the rapid development of video content in Taiwan (YouTube, 2019). YouTube is a comprehensive media platform and a marketing tool (Liu & Hsu, 2018). Unboxing marketing is an important market trend to achieve optimal promotional effects based on product positioning, public characteristics, and target audience. YouTube significantly influences consumer purchasing decisions and caters to an audience's preference for interactivity and diverse content. Previous studies focused on marketing, technology, and media communication but lacked the results of consumer experiential attributes. We determined the design attractiveness factors for unboxing videos and summarized the attractive attributes of unpacking videos in stores. Interviews and discussions were conducted with interviewees to determine the impact of unboxing videos on consumers' sustainable consumption attitudes. The degree of unboxing video appeal was determined from the perspective of consumers. How important video content was to deliver influential messages was also determined

2. Materials and Methods

2.1 Audiovisual Experience

Digital media has changed the social distance between individuals and the means of information access. The consumer generates emotions, resonance, persuasion, and identification through experiences. Fredrickson and Joiner (2002) showed that "positive emotions" influence users' thoughts and actions. Positive emotions include pleasure, satisfaction, and interest. When users experience positive emotions for a product or service, they are more likely to have positive reactions and take action (Diener et al., 2018). Schmitt (1999) proposed that experiences appeal to the five primary senses: sight, hearing, taste, touch, and smell. Through personal involvement in emotions, physicality, and knowledge, external perceptual stimuli provide individuals with aesthetic pleasure and satisfaction, within the individual's inner self (Chen & Wu, 2004).

The attractiveness of unboxing videos impacts viewers' willingness to continue watching, evaluation of the videos, and behavior in terms of recommending them to friends and family (Wang & Liu, 2014). Unboxing videos provide user perspectives, allow users to better understand the characteristics, and content, and motivate purchase desires. By watching unboxing videos, users make better decisions that suit their needs. Successful unboxing videos allow brands to gain recognition and provide a good impression of consumers (Zhang & Chen, 2018).

2.2 Sustainable Consumption Attitude

There is increasing awareness of green consumption, so "bulk stores" appear as a key element of the circular economy as a global phenomenon (ESG, 2023). By 2023, a total of 32 bulk stores were opened in Taiwan. Bulk stores reduce plastic and carbon footprint, and offer a friendly environment to encourage care for the Earth. Sustainable consumption promotes sustainable development. In guiding the consumer market for value identification, green marketing highlights the values of green living and products (Wu & Chen, 2014). As consumers become aware of the impact of their consumption behavior on the environment, they consider sustainability and the consumer experience (Future Consumer Index, 2022). Bulk stores promote a broader sustainable circular economy for a positive impact on the environment and society. By cultivating attitudes, consumers become more conscious of a sustainable future, environmental protection, and sustainable development.



Fig. 1. Bulk stores in Taiwan.

2.3 Kano Model

We used the Kano model to research consumer experience and determine the feelings of consumers after watching unboxing videos. The "Kano quality model" is used to assign specific qualitative attributes to the sensory experience to accurately determine user preferences and needs for the experience (Chen & Li, 2009). In the Kano model, the horizontal axis measures "quality" and the vertical axis "measures satisfaction." The model consists of five different curves that represent five different quality relationships (Fig. 2.). If quality improves, satisfaction improves; If quality decreases, user dissatisfaction does not significantly increase, classified as "Attractive". If quality improves, satisfaction increases proportionately, and if quality decreases, it is considered "One-dimensional"; If user dissatisfaction significantly increases, it is considered "Must-be" quality; If quality improves, satisfaction does not increase, and if quality decreases, user dissatisfaction significantly increases, classified as "Reversal". There are also cases where a quality improvement or decrease does not affect satisfaction, classified as "Indifferent" quality (Kano et al., 1984).

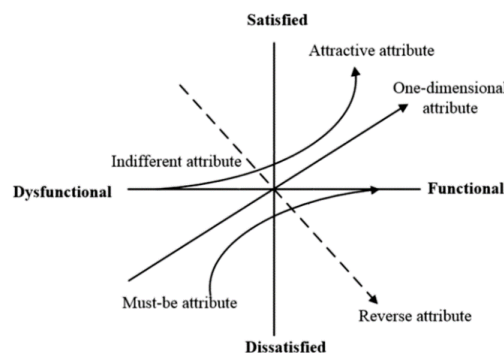


Fig. 2. Kano model for consumer satisfaction measurement.

Kano quality regression analysis is widely used as it is a credible method. Anderson & Sullivan used "regression analysis" to classify quality attributes and demonstrate the asymmetric and nonlinear relationship between the level of quality and satisfaction intention. In the regression analysis, qualities are grouped into two categories, sufficient and insufficient each of which corresponds to a regression equation. The calculated significance of β_1 and β_2 is used to analyze quality attributes. The significant relationship between β_1 and β_2 is used to determine the quality attributes and their relationships as shown in Table 1. A sign is converted before natural logarithm computations, except for the "reverse" category. Thus, so β_1 must be less than or equal to zero, and β_2 must be greater than or equal to zero (Chen & Wu, 2011). We used the Kano model to classify the quality attributes for user experience "preference" and determined the difference between the essence and degree of different attractive factors and the effect of factors on the satisfaction level of user experience quality. The Kano model relies on the quality determination decision matrix.

Table 1. Kano classification guidelines.

Kano classification	B ₁ (Sig.)	B ₂ (Sig.)	
Attractive	n.s.	*	B ₁ =0 ; B ₂ >0
One-dimensional	*	*	B ₁ <0 ; B ₂ >0
Must-be	*	n.s.	B ₁ <0 ; B ₂ =0
Indifferent	n.s.	n.s.	B ₁ =0 ; B ₂ =0
Reversal	*	*	B ₁ >0 ; B ₂ <0

Sig.<0.05 significant level; *: significant level ; n.s.: Non significant level.

3. Results

A literature review was conducted to determine the types, characteristics, and perspectives of unboxing videos, and attitudes toward green consumption. Interviews and a questionnaire survey design were performed to determine user experience attributes and preferences for viewers of unboxing videos. Research results on age groups watching YouTube showed that the largest group was users aged 16–24 years old, followed by users aged 55–64 years old. Thus, we interviewed individuals between the ages of 16 and 24 and 55 and 64. 10 interviewees were invited to the study. The interviewees had over 2 years of experience in watching unboxing videos which were created to trigger audiences' willingness to make purchases. The interviewees included 4 professionals in the media marketing industry, 4 in the design-related field, and 2 sustainable consumption researchers.

We showed "Unpackaged. U" unboxing videos to the interviewees. In interviews, semi-structured discussions were in three dimensions: message acceptance, video effectiveness, and emotional appeal. Different key opinion leaders (KOLs) in the videos appeared from the second-person perspective to describe the impact of unboxing videos on information transparency, visual attractiveness, narrative style, enduring value, and social media engagement. The results of the interviews were compiled into questionnaire items for a survey. We created a questionnaire to evaluate user experiences with unboxing videos. A five-point Likert scale was used for the questionnaire survey.

4. Discussion

4.1. Unboxing Video Experience and Charm Factors

"Using EGM Main Items", interviewees raised statistical items more than 5 times. As shown in Fig. 3, the abstract reasons for the attractiveness of unboxing videos were "understandable" and "persuasive" (8 times); "immersive" and "influential" (7 times); "clear," "identifiable," "pleasurable," "anticipatory," and "relaxing" (6 times); "interesting," "resonating," "unique," and "memorable" (5 times). "Top items on EGM" appeared 5 times. Figure 3 shows that the sub-items that attracted consumers the most were delivering product/service information, professionalism of product management philosophy, video keyword design (8 times), the rhythm of the unboxing process, alignment with sustainability attitude, increased purchase intention, video pace, voiceover guidance (7 times), KOL creating a personal experience (6 times), video content format, KOL's persuasive power, and quicker selection of suitable products (5 times). These items attracted viewers and coincided with their preferences. The interview results are presented as an attractiveness evaluation structure diagram showing three reasons: "message acceptance", "video effectiveness", and "emotional appeal". 13 items and 12 abstract reasons were determined as a result.

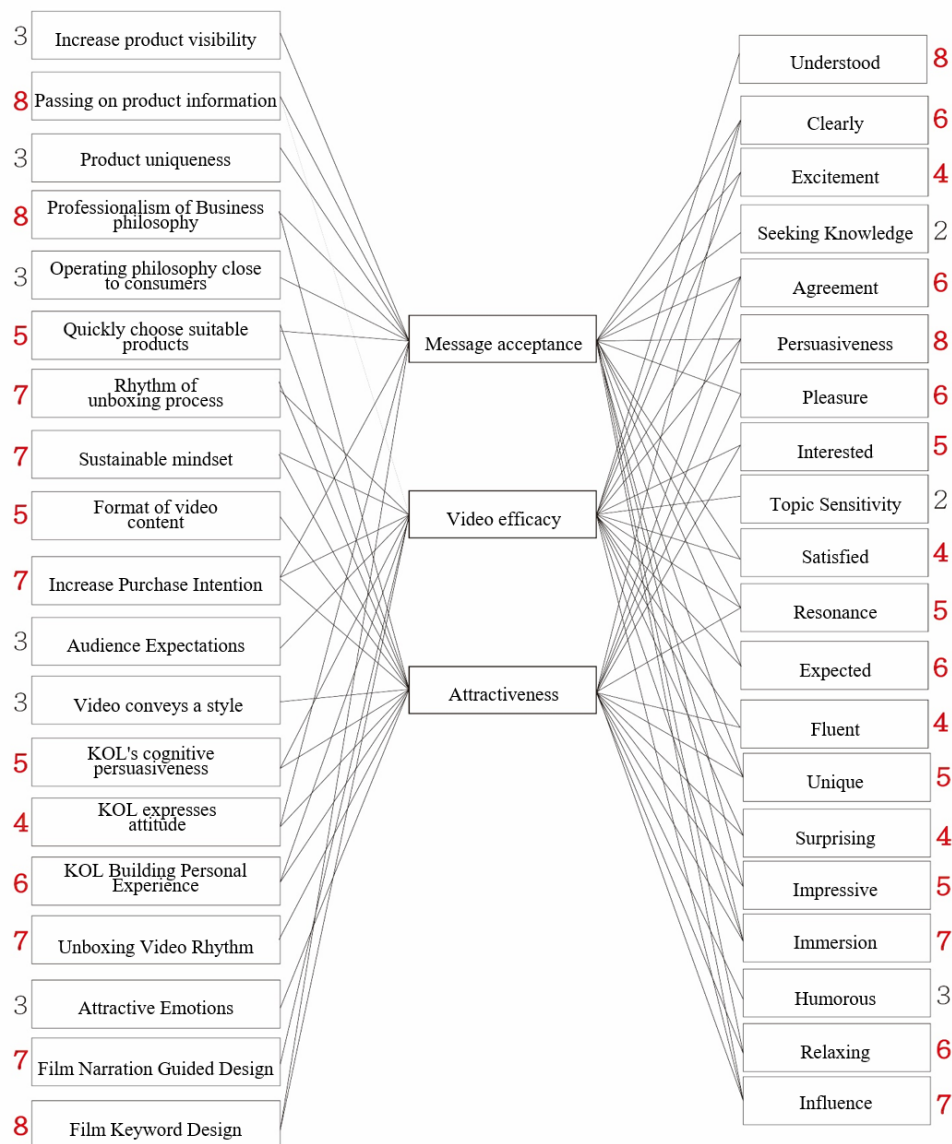


Fig. 3. Charm Factor Statistics Table.

4.2. Kano Quality

The Cronbach's alpha coefficient was calculated to determine the pre-test reliability of the questionnaire. Cronbach's alpha was higher than 0.903, so the questionnaire was reliable. Fig. 3 shows the reliability, consistency, and stability of the questionnaire survey results. The correlation between the various aspects and preference levels for the user experience of unboxing videos was determined using the Kano model linear regression analysis. The quality of the results was determined in terms of the three aspects of unboxing video users. The independent variable was used to determine positive or negative quality, and the dependent variable presented the preference rating. The data was analyzed using linear regression analysis to determine the Kano quality classification (Table 3). To determine the correlation between each item and the preference level for the user experience of unboxing videos, we used the Kano model regression analysis to classify the quality.

Table 2. Kano classification of unboxing videos

	Video Design Attributes	β 1	Sig.	β 2	Sig.	KC
Message Acceptance	1. The introduction in the video creates high expectations for the store's products/services	-0.119	n.s	0.166	*	A
	2. The store's business philosophy and professional performance in the video are relatable	-0.004	n.s	0.246	*	A
	3 The video allows people to quickly grasp and understand the products/services.	-0.078	n.s	0.218	*	A
	4. The video conveys different sales formats for green consumption, which resonates with people.	-0.231	*	0.096	n.s	M
Video Efficacy	5 The guidance provided by voiceover in the video helps in understanding the product/service information	-0.027	n.s	0.175	*	A
	6. The sense of rhythm in the unboxing process in the video feels smooth.	-0.29	*	-0.005	n.s	M
	7. The use of prominent keywords in the video helps in conveying information	-0.08	n.s	0.16	n.s	I
	8. The use of key opinion leaders (KOLs) in the video to enhance product awareness strengthens brand memory	-0.254	*	0.056	n.s	M
	9. The experience of the KOL in the video reinforces my emphasis on green consumption	-0.239	*	-0.043	n.s	M
Attractiveness	10. The explanation of KOL can help increase my willingness to purchase.	-0.155	n.s	0.075	n.s	I
	11. Pleasant content and delivery method of the film.	-0.224	*	0.104	n.s	M
	12. Explanation by key opinion leaders (KOL) that helps enhance my willingness to purchase	-0.246	*	0.001	n.s	M
	13. The film can create a shopping experience that makes me feel immersed in a physical store	-0.376	*	-0.024	n.s	M

Sig.<0.05 significant level; *: significant level; n.s.: Non significant level

In terms of message receptiveness, "1. The introduction in the video creates high expectations for the store's products/services", "2. The store's business philosophy and professional performance in the video are relatable," and "3. The video allows people to quickly grasp and understand the products/services" were classified as attractive qualities. These attractive qualities enhanced message receptiveness and generated interest and confidence in the audience to initiate purchases or use the store's products or services. "4. The video conveys different sales formats for green consumption, which resonates with people" was classified as a necessary quality. Unboxing videos provided various sales formats for green consumption, evoked resonance, and captured consumers' attention. Consumers resonated with the content, and there was a linear relationship between resonance and preference, which promotes green consumption.

In terms of the factors that contribute to the effectiveness of videos, "5. The guidance provided by voiceover in the video helps in understanding the product/service information." Was a charming quality, and unboxing videos with this quality conveyed information and attracted viewers. By listening to the voiceover explanations, viewers obtained a clearer understanding of the features and benefits of the product or service. Such a guiding approach enhanced the quality of the video and rendered it more appealing and beneficial. "6. The sense of rhythm in the unboxing process in the video feels smooth.", "8. The use of key opinion leaders (KOLs) in the video to enhance product awareness strengthens brand memory." and "9. The experience of the KOL in the video reinforces my emphasis on green consumption." were experiential elements classified as essential quality. "7. The use of prominent keywords in the video helps in conveying information." Was classified as indistinguishable quality, because the presence or absence of this quality in unboxing videos does not significantly impact user experience preferences.

In terms of the factors for emotional charm, "11. Pleasant content and delivery method of the film" and "12. Explanation by key opinion leaders (KOL) that helps enhance my willingness to purchase" were classified as necessary qualities. The third experience item, "13. The film can create a shopping experience that makes me feel immersed in a physical store" was also a necessary quality. These three qualities were important in unboxing videos because they attracted viewers and increased their willingness to purchase.

5. Conclusions

We determined the attractive attributes of unboxing videos' user experience using a Kano quality analysis. Using consumer evaluations of unboxing videos, three dimensions that influenced consumer experience were identified using linear regression: message acceptance, video benefits, and emotional charm. The Kano quality model also showed the impact of consumer experience attributes on their preferences.

Of the 13 experiential attributes, 7 exhibited essential qualities. In terms of the dimension of message acceptance, essential qualities accounted for 25%. In terms of video effectiveness, essential qualities accounted for 75%, and in terms of emotional appeal, essential qualities accounted for 75%. Necessary quality referred to the essential elements of unboxing videos such as clear video content and accurate product information. Consumers expected to be satisfied and have their preferences enhanced in terms of the benefits and emotions they experienced while watching unboxing videos. Therefore, the benefits and emotions created by unboxing videos are design elements that consumers require. If the video does not possess these elements, consumer satisfaction with the video is negatively affected. Charismatic quality" refers to the unique features of a video that give additional value and surprises to users, such as innovative filming techniques and vivid narrative styles. It mainly concerns message reception, so the design of unboxing videos, the introduction of video content, alignment with the creator's philosophy, and mastery of relevant information enhance consumer satisfaction with the unboxing video, but the absence of these factors does not affect dissatisfaction. "Indifferent quality" refers to those qualities that do not directly impact user preferences, such as sound effects and subtitles. Children and teens may be obsessed and even addicted to unboxing videos. For children, the appeal of unboxing videos is the curiosity and surprise brought by people's various reactions after unboxing. Second, catering to the audience's aesthetic tastes, rich colors, lively video bloggers, and funny jokes are required. Third, most of the unboxed goods are affordable products.

The results of this study have important implications for the design and production of unboxing videos. Designers must provide improvement measures based on different quality types to enhance user preference and satisfaction, determine the influence of unboxing videos, and focus on user experience during the design process to ensure that unboxing videos attract and meet user needs. Therefore, the content of unboxing videos must enhance the product's business concept to allow consumers to accurately grasp and understand the characteristics of the product. Ample voice-over guidance must also be provided to create anticipation and pleasure for consumers in terms of the product. By continuously improving the quality of unboxing videos, consumers have better buying guides and user experiences. Consumers also make more rational and economical purchases, which promotes an awareness of environmental effects and increases the possibilities for sustainable development.

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