

## Sezione tematica #9. Sustainable Marketing

### Is it for you? Circular packaging and sustainable authenticity

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#### *Abstract*

In the transition towards a circular economy, circular packaging is crucial for sustainable development and consumption. The paper aims to understand the impact of circular packaging attributes on consumers' purchasing intention and willingness to pay, by highlighting the role of product sustainable authenticity. The study collects data from a questionnaire-based survey administered to Italian consumers. Findings reveal that whether the packaging attributes are perceived as sustainable, the circularity of the packaging have a direct and positive effect on consumers' purchase intention and, in turn, on their willingness to pay. For managers, the study results suggest that the packaging have to be designed in such a way that it may positively influence the perceived sustainable authenticity of the related product.

**Keywords:** circular packaging, product sustainable authenticity, intention to buy, willingness to pay

#### *Introduction*

In the past decade, the growing of environmental protection concern has led consumers to behave "green" in their purchases, and consequently, the interest and the demand for circular products have increased significantly. In this context, circular packaging has become an important aspect to promote sustainable development and consumption (Wandosell et al., 2021), since it allows to add as much value as possible with regard to both the consumer and the product. Thanks to this increasing awareness in environmental sustainability, a great attention has been devoted in the literature to consumers' purchasing of green product packaging. Previous studies have focused mainly on the relationship between packaging materials, recycling, and disposal methods, as packaging attributes, and consumer purchase intention (Brennan et al., 2020; Wikström et al., 2016). However, little is known about the role of product sustainable authenticity, as a consumer perception, in the relationship between packaging attributes and consumer purchasing intention and willingness to pay (Zhang et al., 2018). To bridge this gap, the study proposes a conceptual framework that adds to the literature

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by understanding the effect of circular packaging attributes on product sustainable authenticity, consumer purchasing intention and willingness to pay towards circular packaging. From a theoretical and practical point of view, the study sheds light on the important role of consumer inferences about the product sustainable authenticity in the relationship between packaging characteristics and consumer buying behavior.

### ***Theoretical background and hypotheses development***

Nowadays, the transition towards a circular economy is crucial to pursue a more sustainable development and to guide customers towards more environmentally conscious purchases. In this context, a marketing strategy that firms could implement to engage customers is the adoption of circular packaging, that is a packaging made with circular materials to reduce the impact of waste and pollution, and promote sustainable development by protecting the environment and human health. Thanks to the use of sustainable and recyclable materials and designs (Niero et al., 2017), circular packaging could influence consumers' perceptions about product sustainable authenticity (Baek et al., 2020), their willingness to pay (Napoli et al., 2014), and their purchasing intention (Testa et al., 2021).

### ***Circular packaging attributes and product sustainable authenticity***

Circular packaging is a relatively new concept that has attracted much attention in recent years for the growing interest in worldwide environmental protection. Circular packaging has great potential to contribute to sustainable development. Circular packaging is expected to protect the product and communicate its features, embracing material reuse and waste reduction throughout a packaging life cycle from production to consumption, disposal and after disposal (Dominic et al., 2015). As a result, all these attributes about circular packaging convey to the consumer the feeling of having a real sustainable product in their hands (Wandosell et al., 2021). Therefore, it is expected that circular packaging will generate perceptions about product sustainable authenticity. Formally:

*H1: Circular packaging attributes positively influence the product sustainable authenticity.*

### ***Product sustainable authenticity, intention to buy and willingness to pay***

The consumer positive evaluation of a product packaging about its sustainable authenticity can determine and increase consumers' purchase intention. It has emerged that circular packaging shapes consumers' intention to buy especially when consumers recognized as authentic in sustainable terms. Similarly, the perception of sustainable authenticity of circular packaging lies

in the respect to the environment, in the waste management and recyclability of materials and therefore it influences consumers' intention to buy circular packaging (Kim & Song, 2020).

Moreover, extant literature has also argued that consumers who perceive product packaging as sustainable are willing to buy the products at a higher price than conventional products. Evidence suggests that consumers perceiving sustainability in the making of a product packaging are willing to pay a premium price for the resulting product. The transition towards circular economy will require that consumers aim to practice sustainable consumption and, in turn, are ready to pay for the added value of circular packaging (Steenis et al., 2018).

It has been shown that consumer perception about sustainable authenticity increases brand choice, purchase intentions, and willingness to pay. Formally:

*H2: The product sustainable authenticity positively influences consumer purchasing intention of circular packaging.*

*H3: The product sustainable authenticity positively influences consumer willingness to pay more for circular packaging.*

Nowadays, consumers are experiencing a lot of products during their decision making process and packaging represents the first contact between them and the product. Previous research has revealed that consumers' willingness to pay a premium price for sustainable product packaging could be also positively affected by consumer purchasing intention of circular packaging (Zeng & Durif, 2019). This positive attitude towards circular packaging enhances consumers' interests in purchasing sustainable products at a higher price. Therefore, purchase intention seems to have a strong effect on willingness to pay. Formally:

*H4: The purchasing intention of circular packaging positively influences consumer willingness to pay more for circular packaging.*

### **Research methodology**

To test and verify the research model, the data was collected through an online survey shared over social media. From May 2021 to June 2021, 164 valid responses from Italian consumers were collected. The questionnaire was designed by adopting item-scales from the extant literature. All the items were measured on five points Likert scale, where (1) represents "strongly disagree" and (5) represents "strongly agree". Circular packaging attributes construct (9 items) was adapted from Kapoor & Kumar (2019); product sustainable authenticity scale (4 items) was adopted from Newman & Dhar (2014);

willingness to pay construct (3 items) was adapted from Konuk (2019); and purchasing of circular packaging intention (4 items) was adapted from Testa et al. (2021). Structural Equation Modeling (SEM) was performed to test the research hypotheses.

### ***Results***

With regard to the measurement model, Cronbach's alphas and Composite Reliability values exceed the recommended threshold of 0.70, and all AVE values exceed the recommended threshold of 0.50, excepted for circular packaging attributes. Circular packaging attributes AVE value is 0.406 that still corresponds to an acceptable convergent validity for the construct. Finally, all AVE values are greater than the squared correlations of the constructs, showing discriminant validity of the measures.

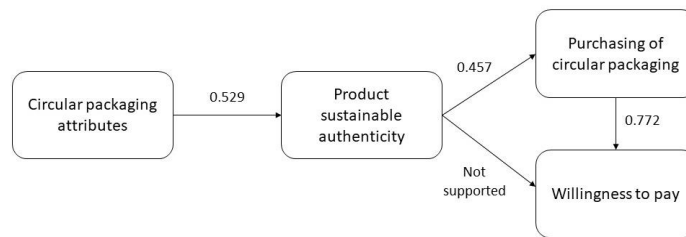
With regard to the structural model, it shows suitable fit indices (DF) 166; Chi-Square/DF 2.662; Root Mean Square Error of Approximation (RMSEA) 0.104; Comparative Fit Index (CFI) 0.933; Standardized RMR (SMRM) 0.137. All research hypotheses are supported, except H3, suggesting that consumers' perception of product sustainable authenticity does not directly affect consumers' willingness to pay. Circular packaging attributes have a significant and positive effect on consumers' perception of product sustainable authenticity ( $\beta = 0.529$ ,  $t = 5.287$ ,  $p < 0.01$ ), supporting H1. Consumers' perception of product sustainable authenticity has a positive significant effect on consumers' intention to buy circular packaging ( $\beta = 0.457$ ,  $t = 4.936$ ,  $p < 0.01$ ), supporting H2. Finally, consumers' intention to buy circular packaging has a significant and positive effect on consumers' willingness to pay towards circular packaging ( $\beta = 0.772$ ,  $t = 8.822$ ,  $p < 0.01$ ), supporting H4 (Figure 1).

### ***Discussion and conclusions***

This study investigates the influence of circular packaging attributes on product sustainable authenticity, customer purchasing intention and willingness to pay towards circular packaging. Study findings reveal that consumers who perceive authenticity and sustainability through product packaging attributes are more likely to purchase circular product packaging and to pay more for them. More in detail, the study shows that when the packaging attributes are perceived as sustainable, the circularity of the packaging have a direct and positive effect on consumers' purchase intention and, in turn, on their willingness to pay. These results contribute to the extant literature both theoretically and practically. In fact, the study is a first attempt to empirically investigate the role of product sustainable authenticity in the relationship between packaging characteristics and consumer purchasing

intention and willingness to pay. The study suggests that consumers make inferences about the authenticity of products when assessing a circular packaging in their decision-making process. Thus, the study makes an important contribution to the literature on the influence of circular packaging attributes on perceived authenticity. In addition, the study contributes to the literature that suggests that packaging attributes positively influence consumers' purchasing intention and willingness to pay, emphasizing the effects of product sustainable authenticity that is a rarely explained topic in the literature about circular economy. The study has also important managerial implications. Managers have to be aware of the fact that packaging attributes effectively affect consumers' choices. By designing packaging that consumers perceive as truly sustainable, firms may positively influence the perceived sustainable authenticity of their products and, in turn, influence consumer buying behavior.

Figure 1 – Structural model



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