

# Understanding the Purchase Intention of Female College Students on Green Packaging Beverage Products between Taiwan and Vietnam

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## ABSTRACT

This research adopts marketing 4C theory to explore customer's purchase intention on green packaging beverage products between two groups of female college students in Vietnam and Taiwan. The study conducts a qualitative method by moderating two focused groups to understand different buying perspectives and behaviors. The results provide insights for marketers and local governments in developing effective global marketing strategies to appeal to young consumers buying green packaging products among different countries and further encourage everyone to reduce their ecological packaging footprint. The findings of this study will directly benefit socially responsible companies for promoting their products to young consumers in Vietnam and Taiwan.

**Keywords:** *green packaging, 4C, marketing strategies*

## 1. INTRODUCTION

Green consumption is closely related to notions of sustainable development, otherwise known as sustainable consumer behavior. The notion of green consumption is to safeguard the present environment without compromising future generations. When addressing green packaging uses in material and manufacturing techniques, they are to minimize energy harnessed from packaging. Producing biodegradable recyclables such as Styrofoam and plastic, green manufacturing processes, in turn, effectively abate greenhouse gas (GHG) emissions from its respective industrial sector.

Taiwan, a developed economy, optimizes its green consumption implementation as a form of mainstream consumption culture [1]. Both its government and citizens have solid understanding of existential green issues and diligently practice sustainable lifestyles [2].

On the other hand, Vietnam, a growing Southeast Asian economy with a consumer market of more than 95 million, experiences less exposure to the concept of green consumption – similar to many other developing countries [3].

The research is focused on investigating consumers' green purchase intention in relation to the packaged beverages of Vietnamese and Taiwanese. This research is a small comparison between intention to buy packaged beverage products of Taiwanese and Vietnamese female college students by applying marketing 4C theory, deeper insights of consumer perspective about the product- namely

consumer perceived value, cost, convenience, and communication. The key research questions are put forward below:

- What are customers' perceptions on the 4C of green packaged beverage products?
- How do these consumer perceptions influence their intentions in purchasing products made of eco-friendly packaging?
- How is the influence of those factors different between Vietnamese and Taiwanese cultures?

## 2. LITERATURE REVIEW

Green marketing can be viewed as a response concerning the global environment through five perspectives: purchasing, manufacturing, packaging, transport and distribution, and waste disposal [4]. This research will focus on packaging perspectives.

McCarthy and Perreault used the term "marketing mix" as his theory for the first time [5], including product, price, place, and promotion (4P), while Lauterborn [6] stresses this marketing mix theory with 4C along with notions including consumer, cost, convenience and communication. It can be seen from the perspective of consumers that it redefines the marketing mix's four basic components, namely consumer perceived value, cost, convenience, and communication. 4C theory emphasizes that enterprises ought to consider their customer satisfaction to be their top priority. Meanwhile, it is also important to decrease the

customers' purchase cost, while at the same time, the company needs to pay full attention to the consumers' convenience during the purchase. At the end, it stresses the necessity to communicate with consumers more effectively. This research uses four components of 4C theory instead of 4P theory to have deeper insights of customers' perspective about packaged beverages.

**2.1. Consumers' Perceived Value**

Consumers' perceived value is meant as consumers' overall assessment regarding what is received in relation to what is provided [7]. "Green perceived value" is defined by Chen and Chang [8] as "a consumer's overall appraisal of the net benefit of a product or service between what is received and what is given based on the consumer's environmental desires, sustainable expectations, and green needs." Perceived value was found to have a positive impact on customer trust and green purchase intention [8]. In this research, green perceived value is defined as the perceived outcome when a consumer purchases eco-friendly products, including those with eco-friendly packaging.

**2.2. Cost**

The cost of the consumer can be divided into two kinds: price cost and effort cost. Green products are generally perceived as pricier than conventional goods, it would hence be considered as a barrier to green consumption [9]. Effort cost consists of physical and time efforts, while taking into account brand search costs, and the physical effort to make purchases that are largely influenced by the brand availability in many distribution channels. Yoo, Donthu [10] provided the empirical evidence to show that the key to increasing customer satisfaction is to make a brand available in more stores offering convenience, time savings and service accessibility (Ferris and de Kluyver 1989).

**2.3. Convenience**

Limited availability of green brands is a major obstacle to desired purchase consumer behavior, as many consumers may not be willing to change their retail outlet or brand on account of non-availability [11-13]. Despite a consumer's motivation to purchase goods deemed as 'green brands', if their surrounding location prevents their accessibility to purchase those green brand goods, then they would not purchase them at all [14]. In one study by Gleim, Smith [15], green product availability was identified as a barrier by 9.98 percent of the respondents. In particular, of those that noted a lack of availability, nearly half indicated that green products could not be purchased conveniently, while the other half found that green products were not readily available to purchase. De Pelsmacker, Driesen [12] identified that lack of availability of green products is one of the reasons for less green consumption. Young, Hwang [16] reported that green consumers are more willing to

purchase green products if they are available in a range of retailers. Most studies showed that the difficulty and limited availability in accessing green products were major barriers to purchasing environmentally sustainable products [15, 16]. The reason being consumers generally look for convenience in purchasing [17, 18]; conversely, finding a green product is inconvenient.

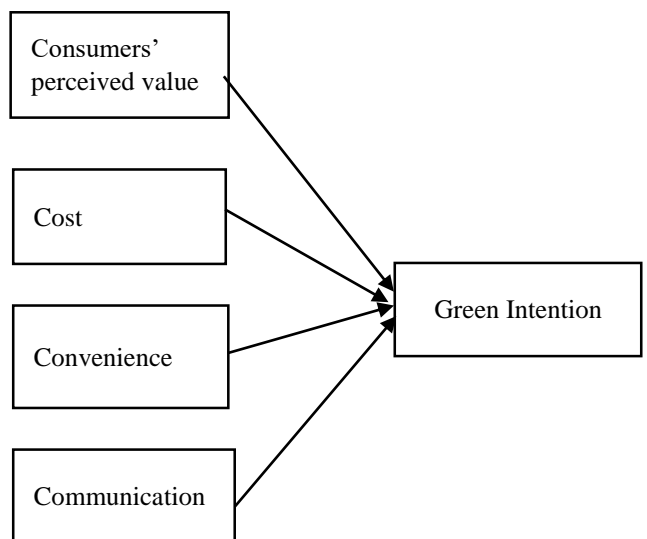
**2.4. Communication**

Packaging plays another critical role in marketing; it can help a brand uniquely position itself in the large-scope marketplace and win the hearts of consumers more [19]. For the latter, it guarantees that the product will be safely delivered and that its message will be carried to consumers. Consumers can then buy the item and use it as they wish. Packaging has a better reach than advertising does as it can set itself apart from its competitors.

Packaging represents an authentic communication interface between consumers and producers. This part will focus on packaging design and packaging materials.

**3. METHOD**

To collect data for purposes of refining the research model and formulating the research instrument, two focus group interviews were conducted –Vietnamese and Taiwanese female students, each group having 6 participants. To ensure consistency of the focus group interviews, the discussion theme and questions were prepared sequentially and tested before proceeding with the focus group interviews. Focus group questions were built around 4 components of 4C theory and intention toward packaged beverages.



**Figure 1** Thematic Map – 4C and Green Intention

## 4. RESULTS AND DISCUSSION

### 4.1. Customer Perceived Value

Some participants stated that they care about the taste, ingredient of a drink first and then its packaging. For instance, a Taiwanese girl said: "I just care about the product itself. I don't really care if it 's green or not ". A Vietnamese girl has the same opinion: "I buy a drink because I feel it has a good taste, I do not care about its packaging. After using it, I throw it away. Why do I need to care about it?". On the other hand, behavioral intention for eco-friendly packaged drinks was clearly expressed by many participants such as the following:

*I care about the environment. I will take action to protect it. So, I always try to find a green product to buy. (Taiwanese)*

*I will buy eco-friendly packaging because I feel like I play a role in protecting the environment. Now, protecting the environment is a trend, I can see that on social media. (Vietnamese)*

Many participants intended to buy eco-friendly packages, though citing different reasons which could lead to their purchase intention. Consumers' perceived value of green packaging with Taiwanese solely relates to environmental protection. For Vietnamese, green packaging can protect the environment, be safer for human health and purchasing green packaging is following the trend.

*I like using a product with eco-friendly packaging. Because I feel that paper packaging is safer than plastic. It's better for my health. (Vietnamese)*

*Some of my friends really consider when they buy something. They try to find green products. I do the same thing. (Vietnamese)*

### 4.2. Cost

Almost all participants expressed some degree of willingness to pay for beverages packaged environmentally. They emphasized the importance of human health, the quality of green packaged products and the quality of the environment in making purchase decisions related to packaged foods. Taiwanese seem to care more about the environment, almost Taiwanese stated that they are willing to pay a higher price to protect the environment. Vietnamese may care more about the physical appearance of packaging, some of them will buy green packaged products with a good design.

*I do not care about the environment. I buy the eco-friendly packaging because I think it is better for my own health. The extra cost doesn't matter to me. (Vietnamese)*

*I just care about the design of the packaging. If the design is special to me, I will pay more. (Vietnamese)*

*For me, high price means high quality. So, a higher price makes me feel safer. (Taiwanese)*

In previous research, 61 percent of Taiwanese respondents reported they would be willing to purchase green products, even when green products cost more than non-green

alternatives (85 percent of those green consumers would pay a price premium, but lower than 10 percent) [20]. Tsay [20]'s research was conducted in economic crisis time, price is extremely sensitive that time. Young Taiwanese in this research can pay 10 – 20% more than plastic bottle drink for a green packaged product. Price cost is 5-10% higher than conventional products, which is acceptable for Vietnamese. For example, a participant stated:

*I think it should be a reasonable price for a daily product like beverages.*

*Nobody wants to buy the same product if they need to pay a very high extra cost. The most important factor is price, I think a reasonable price should be higher than the traditional one 5 – 10%. Then, people who care about the environment will consider buying it. (Vietnamese)*

Price cost is not a big barrier for Vietnamese and Taiwanese to purchase a green packaged beverage, all of them are willing to pay a higher price. However, the price of effort becomes a big problem. Vietnamese stated that they do not want to pay more than the price of a daily product. Taiwanese did not mention the cost at this point, they mentioned the inconvenience when they need to put effort into finding eco-friendly packaged beverages in the market.

### 4.3. Convenience

All participants indicated that they often bought packaged drinks in their grocery shopping trips. They expressed concerns on inadequate supplies of eco-friendly alternatives for packaged drinks. The availability of alternatives was perceived to be the extent of ease in searching and buying a desired eco-friendly product. Most participants stated that it was not easy to find and locate drinks packaged in an eco-friendly manner, as indicated in comments below:

*It's more difficult to find an eco-friendly packaged beverage in the market. (Vietnamese)*

*In Vietnam, green products are not popular, very difficult to find. (Vietnamese)*

*I think that the Taiwan companies care about the environment, so we can see more and more green packaged products in the market. But it's not a big deal compared to plastic packaging; I still cannot find the green packaging for my favorite drinks. (Taiwanese)*

The inconvenience may be the biggest barrier for both young girls in Taiwan and Vietnam. Participants are willing to pay higher cost for green packaged drinks, if those products are available in their grocery shopping trips. Unavailability of a daily product makes customers feel it is too hard to be green. For example:

*I will buy it if it's convenient for me. I do not want to put any effort into buying something. (Vietnamese)*

*It's not necessary to order a daily product online. I think buying a drink bottle online is trouble, inconvenient. I prefer picking one when I buy breakfast in a convenience store. (Taiwanese)*

In summary, unavailability of eco-friendly packaged beverages can be a negative factor in affecting consumers' green purchase intentions on products with eco-friendly packaging. This opinion supports theories showing that

unavailability of an eco-friendly product may be an obstacle for green purchase decisions [21].

**4.4. Communication**

Design is the most important factor when Vietnamese think about packaging. At the beginning of the focus group, some participants stated that they want an eye-catching packaged product. Vietnamese girls stated that they know the terms like “green product”, “green consumption” through social media networks. A half of Vietnamese participants do not know what an environmental symbol is, which becomes a problem. Previously proved that knowledge about environmental issues influences the consumer eco-friendly purchase intention [22]. Boo and Park [23] identified the important role that knowledge plays in

enhancing peoples’ intention to engage in pro-environmental behavior. So, lack of environmental knowledge is a big barrier of communication between socially responsible companies and consumers. They stated that: “I’d like an eye-catching packaging first.” and “I think the packaging needs to be beautiful.” That means, companies in Vietnam want to provide green packaged products to the market, they should focus on packaging design.

On the other hand, packaging design is not important to Taiwanese. They stated that they have learned about environmental symbols from textbooks at primary and secondary school. Taiwanese participants can differentiate whether a packaging is green or not. That is a good signal and proves that Taiwanese care more about the environment. The difference between Vietnamese and Taiwanese girls was concluded in the following table.

**Table 1** The Difference between Vietnamese and Taiwanese Girls

	Vietnamese	Taiwanese
Customer value	Green packaging can be a solution to protect the environment, be safer for human health and purchasing green packaging is following the trend.	purely related to the environmental concern.
Cost	<ul style="list-style-type: none"> <li>- Vietnamese may care more about the physical appearance of packaging, some of them will buy green packaged products with a good design.</li> <li>- Price cost is 5-10% higher than conventional products.</li> <li>- I do not want to pay more than the price of a daily product.</li> </ul>	<ul style="list-style-type: none"> <li>- Taiwanese seem to care more about the environment, almost Taiwanese stated that they are willing to pay a higher price to protect the environment.</li> <li>- can pay 10 – 20% more than a plastic bottle drink for a green packaged product.</li> </ul>
Convenience	The inconvenience may be the biggest barrier for both young girls in Taiwan and Vietnam. Participants are willing to pay higher cost for green packaged drinks, if those products are available in their grocery shopping trips.	
Communication	<ul style="list-style-type: none"> <li>- Design is the most important factor for Vietnamese.</li> <li>- A half of Vietnamese participants do not know what an environmental symbol is.</li> </ul>	<ul style="list-style-type: none"> <li>-packaging design is not important to Taiwanese.</li> <li>- Taiwanese participants can differentiate whether a packaging is green or not.</li> </ul>

**5. CONCLUSION**

The results show that Taiwanese female college students care more about the environment so that they are willing to pay more and put more effort into buying green packaged beverages. The possible explanation may come from the effective propaganda as well as execution of Taiwan government policies on green consumption and production, particularly in the implementation of the environmental education system from preschool to college. Thus, Taiwanese students are more knowledgeable about green packaging products than Vietnamese ones. They purchase a green product for the major concern of environmental protection. However, Vietnamese have some different reasons for purchasing an eco-friendly product. Vietnamese female college students enjoy following trendy topics and current events spreading on social platforms such as Facebook, Instagram. Consequently, marketers may craft

marketing strategies by recruiting key opinion leaders (KOL) or influencers via social media networks to promote green packaged products to Vietnamese consumers. Moreover, this study concludes that the key difference between Vietnamese and Taiwanese young consumers is knowledge about green packaging products. In Taiwan, even public institutes, schools, and private sectors are urged to promote their own responsibilities on environmental sustainability. By improving environmental protection knowledge and literacy among preschool and primary school students, teenagers and youth, the existing standard education curriculum can be coordinated to promote a variety of environmental education activities for all ages, teacher training, and teaching material design. That is what the Government of Vietnam needs to learn from Taiwan to promote consumer pro-environmental behavior and reduce the consequences of environmental pollution.

This research also shows the importance of availability of green packaging products for young people in both countries. Companies need to provide more convenient and multiple channels to approach and serve more customers. The study also shows that package design would be an important factor for Vietnamese to buy green products. Currently, companies in Vietnam are innovating new ways and means and effective communication channels to appeal to customers through its attractive package design. Previous marketing research suggests that how ethnic consumers differ in their purchase decision making. The future study will focus on comparing green purchasing intentions among different ethnic consumers in southern Asian developing countries with similar experience of economic development, such as Indonesia, Thailand, and Malaysia.

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