

# **Perceived Impacts of Hunger Marketing on Buying Behaviors: A Survey Study of Online Shoppers**

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# **Perceived Impacts of Hunger Marketing on Buying Behaviors: A Survey Study of Online Shoppers**

Chih-Lin Lo, B.A.

Wenzao Ursuline University of Languages, 2021

## **Abstract**

Among the marketing strategies, how to stand out in the marketplace is the key to product success. As ordinary products no longer satisfy consumers' desire to buy, limited-edition products which caused the snap-up have appeared more and more frequently in recent years. Some manufacturers believe that as long as they limit the available supply and create a shortage, hunger marketing strategy can succeed in attracting buyers. However, successful hunger marketing is not just based by scarcity but also by the psychological characteristics that drive people to buy. Therefore, consumer's psychology has a considerable influence on the hunger marketing model. The study aimed to understand online shoppers' perceived effects of hunger marketing on their shopping behavior. A questionnaire was designed to survey customers' perceived effects of brand impression, media campaigns, and scarcity on their shopping behaviors. 384 valid responses were collected. The results showed that all major factors were significantly positively correlated with hunger marketing, and different demographic variables had little effect on the effectiveness of hunger marketing.

Keywords: Hunger marketing, Buying behavior, Perception, Online shopper

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# INTRODUCTION

## Background

There are various marketing strategies, and the concept is whether they can understand the connotation of consumer behavior.<sup>1</sup> Among many competition products, how to meet the purchasing desire of consumers has become the most important course. As long as there is a slogan for limited-time discounts, limited-edition products or the word containing "limited", it usually attracts consumers' attention. We can often see the phrase like "Today only", "Gone tomorrow" for certain products whether in a store or a website and causes consumers snapping up. When the quantity or time of a product is limited, consumers will feel the lack of time, which not only causes a fear of missing, but also creates a hunger for scarce products. Obviously, this is a technique of hunger marketing. However, not all products are suitable for this marketing method. The main reason for the successful of limited products is scarcity. Marketing personnel increase the consumer's perceived value through consumer's perceived scarcity of products, services or promotions.<sup>2</sup> The limited strategy is a basic method for companies to operate it. Mainly restrict the available supply, leading to a false shortage and then the company maintains a higher selling price thus generating higher profits.

With the popularity of online shopping, many manufactures started to operate hunger marketing on online shopping websites or official brand websites. A unique characteristic of online shopping environments is that they allow vendors to create retail interfaces with highly interactive features.<sup>3</sup> One of the most common technique

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<sup>1</sup> 呂國璋, "雷神巧克力在臺灣的行銷手法探討," (2015), <http://www.ck.tp.edu.tw/~ckhss104/essays/06.pdf>.

<sup>2</sup> 楊雅棠, 邱美惠, and 翁郁權, "獨特性需求、限量策略之消費知覺價值與購買意願關係之研究—以中式白酒產品為例," *商學學報*, no. 19 (2011).

<sup>3</sup> Gerald Haubl and Valerie Trifts, "Consumer Decision Making in Online Shopping Environments: The

is the countdown clock. It counts down products discount activity and indirectly informs consumers that the time available for discounts is short in order to attract consumers to snap up within a limited time. Such a manipulated marketing technique is primarily to have the product become in hot demand, further to attract consumers' intensive attention and generate the consuming subject.<sup>4</sup> The purpose is to remind that anyone with desire to buy a product should act quickly to further stimulate people's buying motivation.

One of the key factors for the success of hunger marketing is usually the consumer trust accumulated by the brand. When a product with sufficient brand awareness causes snapped up through a limited amount, it can once again increase the visibility of the product and further increase the consumer's impression of the product. Consumers will have a higher brand attitude and purchase intention that are familiar and a better brand image.<sup>5</sup> Therefore, the ultimate effect of hunger marketing is not just to raise prices, but also to create higher added value for the brand, in order to establish a high-value brand image.<sup>6</sup>

The once-popular I-MEI thick milk tea which caused the snap-up because of its great evaluation on the Internet. It is only sold exclusively at Costco and was not even available at I-MEI's own stores. This created an alternative hunger marketing. Almost every Costco can be seen in large numbers of consumers are waiting in line before the store opens. Once the door is opened, the consumers will go straight to the position of thick milk tea for crazy snapping up. With consumers normally start to spread such

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Effects of Interactive Decision Aids," *Marketing Science* 19, no. 1 (2000).

<sup>4</sup> Ya-Ling Wu and Szu-Ting Lai, "The Effects of Hunger Marketing Strategy and Customer Emotion on Purchase Behavior," *Emergent Research Forum (ERF)* (2019).

<sup>5</sup> 林南宏 et al., "產品知識及品牌形象對購買意願的影響-產品類別的干擾效果," *行銷評論* 4, no. 4 (2007).

<sup>6</sup> Admin, "Hunger Marketing," last modified June 11, accessed May 10, 2020. <https://tyrrellandcompany.co.uk/2014/06/11/hunger-marketing/>.

news wildly on the Internet, thick milk tea has become a hot topic. Then the news of being out of stock constantly emphasized the rarity of thick milk tea. Some manufacturers believe that as long as they limit the available supply, creates a manufactured shortage and blindly whetting customers' appetite, hunger marketing strategy can be succeeded. They operate hunger marketing strategy based on their own product characteristics, sale channels, marketing capabilities and think the better they can perform it.

However, companies often set the virtual price of the product too low and expect consumers to desire too much. At the same time, because the supply is always tight, consumers cannot obtain the product for a long time, or due to the increased price. Unbearable, consumers may feel that their expectations are difficult to achieve, or their effectiveness has been declining, they will give up the consumption of this product and switch to other similar products.

### **Motivation**

With the rise of the Internet in modern times, hunger marketing has become more prevalent on online shopping sites. When browsing the website, I can often see many advertisements for limited-time promotion of certain brands or some specific products are being sold in limited quantities, which always stimulates my willing to buy. Due to fear of missing out, I often impulse to buy without thinking twice. People's unmet needs under the current conditions are constantly increasing, our psychological characteristics make hunger marketing strategy be true. Therefore, consumer's psychology has a considerable influence on the hunger marketing model. For the company, effectively grasp the psychology of consumers in order to further improve consumers' purchasing intention, they can successfully achieve their marketing goals.

### **Research purpose**

The purpose of this study is to understand online shoppers' perceived effects of hunger marketing on their shopping behavior. According to the literature, it is not difficult to understand that consumers' buying behavior may be affected by media promotion, brand impression and perceived scarcity which in turn affects their buying intentions. Therefore, this study aims to further understand online shoppers' perceptions of hunger marketing and whether those factors affect their purchase intention to a certain extent.

### **Research question**

1. Whether brand impressions drive consumers' desire to buy hunger marketing products?
2. Whether media campaigns drive consumers' desire to buy hunger marketing products?
3. Whether scarcity drive consumers' desire to buy hunger marketing products?

### **Contribution**

The enterprises must ensure that this marketing strategy can effectively attract online shoppers and the products have sufficient market potential on the site. Investigate the online shopping usage of online shoppers and their perception of product brands, media and scarcity in the face of hunger marketing. Therefore, my contribution may help provide online sellers with information and ideas of factors on online shoppers in hunger marketing.

### **Limits**

The main study population was that various online shoppers and they were not limited to active hunger marketing buyers, so some of them might not be attractive enough for hunger marketing. I would like to investigate online shoppers who are active in hunger marketing on some specific shopping platforms. However, I might face the problem of not being able to reach these people. Ultimately, the strong perception of people on hunger marketing may not apply to everyone, and their mind may change at any time. I believe I can still rely on the collected data for useful analysis.

### **Delimits**

Since the study population was limited to frequent online shoppers, such as at least once a month. Therefore, those who have no online shopping experience or are not active online shopping will not be included.

# LITERATURE REVIEW

## Hunger Marketing

### The Concept of Hunger Marketing

Marketing has always been the driving force for companies succeed. As consumption patterns change, companies have developed various marketing strategies. The purpose is to increase product exposure opportunities and consumers' willingness to buy, thus allowing companies to increase revenue and obtain greater benefits. In such a variety of marketing methods, hunger marketing has been widely operated by enterprises in recent years. The utility theory of western economics has laid a theoretical foundation for hunger marketing. It means the satisfaction that consumers get from the consumption of goods and services and it is a psychological concept with subjectivity. Before buying a product, consumers usually go through a series of psychological reactions and make the purchase decision after evaluation.<sup>7</sup> Through the consumer's expectation that they may lose in the future, manufacturers adjust the supply and demand of commodities to create the illusion that is in short supply and then increase consumers' willingness to purchase. Then manufacturers raise the selling price of the products lead to more profits.

### Components of Hunger Marketing

Scarcity can not only stimulate purchase intentions, but also encourage consumers to pay for higher prices<sup>8</sup>. It is not only an important method for companies to manipulate hunger marketing, but also a basic premise in economic behavior. In recent years, more and more brands have successfully boosted their sales by using the

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<sup>7</sup> 陳亭羽 and 田季芳, "網路廣告效果衡量指標之探討," *Management & Systems* 15, no. 2 (2008).

<sup>8</sup> 楊雅棠, 邱美惠, and 翁郁權, "獨特性需求、限量策略之消費知覺價值與購買意願關係之研究—以中式白酒產品為例," *商學學報* 19 (2011); *ibid.*

scarcity strategy in their marketing campaigns.<sup>9</sup> The Cabbage Patch panic dramatically illustrates one of the psychological effects of unavailability<sup>10</sup> is due to scarcity. According to the reports, the United States industries sold a soft-sculpted doll with exaggerated neonatal characteristics in 1983. At that time, the demand for these dolls exceeded the huge demand that retailers did not expect. Therefore, the dolls began shortage after entering the market. The scarcity of dolls makes people more strongly want to own one, so that riots broke out in the store, customers scratched, pushed, and fought, parents drive hundreds of miles to buy them, scalpers resell dolls at six times the price and people are also willing to pay a high price in an attempt to get the dolls.

Although the academic marketing and consumer- behavior literatures contain relatively little about the psychological effects of scarcity, marketing practitioners have long assumed that scarcity enhances the perceived value of products and opportunities.<sup>11</sup> Compared with easily available products, any hard-to-obtain products are unique to consumers and have a considerable value. Even if there is no obvious difference in the functions of these products, for consumers, access to things that others cannot get can improve their superiority. Based on the unique value that may be created after owning the product, consumers will often reduce their decision-making time and increase purchase intention.<sup>12</sup> In simple terms, the company limits the number of products or the time available for purchase to give consumers the

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<sup>9</sup> Nora, "How Does Hunger Marketing Strategy Get into Your Head?," last modified Oct 16, accessed Oct 14, 2020. <https://medium.com/@tripleynora/https-medium-com-tripleynora-how-does-hunger-marketing-strategy-go-into-your-head-a56b4ac4c5ac>.

<sup>10</sup> Michael Lynn, "The Psychology of Unavailability: Explaining Scarcity and Cost Effects on Value," (1992); Michael Lynn, "The Psychology of Unavailability: Explaining Scarcity and Cost Effects on Value," *Basic & Applied Social Psychology* 13, no. 1 (1992).

<sup>11</sup> Michael Lynn, "Scarcity Effects on Value: A Quantitative Review of the Commodity Theory Literature," *Psychology & Marketing* 8, no. 1 (1991).

<sup>12</sup> 黃嫻雯, "飢餓行銷效果分析: 以 Apple 及小米公司為例," 國立高雄應用科技大學國際企業系碩士論文 (2014), <https://hdl.handle.net/11296/pfrn22>.

impression that the products are about to be sold out and stimulate them to buy. The limited-edition products just satisfy their desires.

Higher breadth of brand awareness leads to increased sales if consumers are more likely to think of the brand across a variety of settings when it could be employed or consumed.<sup>13</sup> When a brand has core values, it must also be rooted in people's hearts to transform brand influence into revenue. Consumers may be impressed or familiar with the brand from comments given by people around them or from contacts they have had. The more exposure a person has to a brand, the better chance that brand has at a sale.<sup>14</sup> People are more likely to buy products that they are familiar with and have a good brand image, because they feel at ease and reliable, and they are also highly satisfied with the product.<sup>15</sup> When consumers are not interested in or unfamiliar with a brand, they will not easily try because of insufficient trust in the brand. Therefore, brand appeal is an important part of hunger marketing operation and is also a consideration for consumers' purchasing decisions.

Nowadays, consumers rely more than ever on information conveyed by the media. With social media consumption up across the board, these platforms give brands opportunities unlike any other to get their messages out to a wide range of audiences resulting in sales, brand recognition and positive company sentiment.<sup>16</sup> Therefore, promotional campaigns and social media have been an essential part of

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<sup>13</sup> Steve Hoeffler and Kevin Lane Kelle, "Building Brand Equity through Corporate Societal Marketing," *Journal of Public Policy & Marketing* 21, no. 1 (2002).

<sup>14</sup> Brandon Carter, "Every Impression Counts: Brand Impressions and Customer Engagement," last modified May 12, accessed Oct 14, 2020. <https://blog.accessdevelopment.com/index.php/2014/05/every-impression-counts-brand-impressions-and-customer-engagement>.

<sup>15</sup> 林南宏 et al., "產品知識及品牌形象對購買意願的影響-產品類別的干擾效果," *行銷評論* 4, no. 4 (2007).

<sup>16</sup> Megan Brodsky, "Hungry for Social Media Inspiration? These Campaigns Will Fill Your Plate," last modified May 11, accessed Oct 16, 2020. <https://www.kiterocket.com/hungry-for-social-media-inspiration-these-campaigns-will-fill-your-plate/>.

hunger marketing. The most commonly used channels include advertising, celebrity endorsements and professional recommendations. The endorsement of celebrities creates a strong reputation for the product. Those influential advertisements help disseminate information, so that the information of the event is known to the vast consumer groups. Media propaganda is the key for driving consumers' desires to buy the products.

### **Operation of Hunger Marketing**

Some particular techniques used in hunger marketing is limiting available stock of product, limiting time to buy particular product.<sup>17</sup> Throughout the marketing strategies of these manufacturers, consumers are aware of the scarcity of products by shortage of channels. More and more online retailers use low inventory notifications to remind shoppers of rare items, when buyers see that the goods they want are nearly exhausted, their motivation to buy will be stimulated. Because when they do not purchase the limited-edition goods in time, they will be more difficult or no longer to get it. This is an incentive for them to shop immediately. When people possessing such unavailable resource, it will confer them a sense of self-uniqueness, a status of showing off and a power over those who desire unavailable resources.

Time limit is another most common technique. The limited time sale not only encourages a “buy now” mindset, but it again taps into the loss aversion tactic that reminds potential attendees why they need to act now rather than later.<sup>18</sup> Faced with the limited time available for shopping, consumers face the pressure of time, and they

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<sup>17</sup> Maja Rogalska, "Hunger Marketing ", last modified December 1, accessed April 27, 2020. [https://ceopedia.org/index.php/Hunger\\_marketing](https://ceopedia.org/index.php/Hunger_marketing).

<sup>18</sup> Kaleigh Moore, "9 Scarcity Marketing Tactics " SUMO, last modified April 22, accessed April 27, 2020. <https://sumo.com/stories/scarcity-marketing>.

will consider and decide the actions of shopping through their instantly emotion. Therefore, the time effect of sales will trigger the emotional pressure of consumers, which will incentive and stimulate their psychology, thus increasing their purchase intention. In limited-time promotions, indicating that anticipatory regret was a stronger force than curiosity or enthusiasm.<sup>19</sup> A professor conducted a descriptive analysis of the Groupon promotion of a startup. The company ran a Groupon promotion for a period of six months. The study found that during the limited time promotion period, early redemptions driven by redeemers may be more curious about the product and they use the promotion to try new products. As long as the customer group redeems Groupon, the redemption rate will drop. Since many stragglers rushed to use their Groupon before their Groupon expired, it reappeared again. Regret for missing the transaction, so setting the validity period is very important to trigger the consumer's expected regret, because it will cause the consumers to increase their willingness to buy.

The life cycle of popular technology products in modern smart phones is short, and they will soon be replaced with new ones. This means that consumers who are interested in pursuing innovation or popular technology will immediately start to launch new products under the pressure of this marketing method. Throughout the marketing strategies of these manufacturers, consumers are aware of the scarcity of products by means of limited issuance, limited purchases per person, and shortage of channels. Based on the unique value that may be created after owning the product, consumers will often reduce their decision-making time and Increase purchase

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<sup>19</sup> Utpal Dholakia Ph.D., "Why Limited-Time Offers Entice Shoppers to Buy," LLC, last modified June 3, accessed April 27, 2020. <https://www.psychologytoday.com/us/blog/the-science-behind-behavior/201906/why-limited-time-offers-entice-shoppers-buy>.

intention. In addition, when manufacturers reduce production capacity and advertise the shortage of goods, consumers will be willing to wait.

### **Effective Development of Hunger Marketing**

With the gradual maturity of the consumer market and strong consumer purchasing power, brands and companies are looking for new marketing methods to gain more profits and increase market share.<sup>20</sup> More and more companies are beginning to operate hunger marketing. In many marketing cases, hunger marketing has achieved great success.

One of the successful cases is Xiaomi, a world-renowned smartphone company. Hunger marketing strategy is one of the integral components of Xiaomi marketing strategy.<sup>21</sup> In the early days, Xiaomi only produced a small number of high-quality smartphones to attract customers' attention. Such cost-effective products have attracted many customers willing to buy, but they have encountered the problem that low productivity cannot meet the huge demand. The shortage of Xiaomi mobile phones caused a sensation in the market and stimulated consumers' desire to own it. Besides applying the tactic of restricting supply by producing just in time inventory, Xiaomi combines it with the allure of low prices. By grasping the psychology of consumers, Xiaomi has laid a large number of sales foundations for the future. Xiaomi gradually increased the prices and made a lot of profits. Therefore, it is tremendous for a company to combine scarcity with attractive prices.

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<sup>20</sup> Sheng-bing TIAN and Da CHEN, "Hunger Marketing" Strategy and Its Application Research—Based on Apple Products," *DEStech Transactions on Economics, Business and Management, (icem)* (2016), <http://dx.doi.org/10.12783/dtem/icem2016/4062>.

<sup>21</sup> John Dudovskiy, "Xiaomi Marketing Strategy: Hunger Marketing in Action," last modified May 28, accessed June 24, 2020. <https://research-methodology.net/xiaomi-marketing-strategy-hunger-marketing-in-action/>.

## **Buying Behavior**

### **The Concept of Buying Behavior**

Consumer buying behavior is the processes consumer use to choose, consume, and dispose of products and services, including their emotional, mental, and behavioral responses.<sup>22</sup> In order to meet the needs and desires, people will purchase goods or services. Purchasing behavior not only occurs when people buy the products or services they need, but also the family to meet the needs of life or the enterprise to meet the needs of production. Many factors, specificities and characteristics influence the individual in what he is and the consumer in his decision-making process, shopping habits, purchasing behavior, the brands he buys or the retailers he goes.<sup>23</sup> The process of consumers' buying behavior consists of a series of elements. In this process, the purchase decision is the core, and the decision will directly determine the way and utility of the buying behavior.

Purchase decision is the process of thinking that by which consumers determine their needs and carefully evaluate products and brands. Consumers frequently rely on the opinion of other consumers, such as product experts, acquaintances, or online users, before they make their purchase decisions.<sup>24</sup> This makes it easier for people to obtain product reviews and promotes this behavior.

### **Stages of the Buying Process**

The consumer buying process helps companies to identify the entire process

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<sup>22</sup> Valentin Radu, "Consumer Behavior in Marketing – Patterns, Types, Segmentation," last modified November 26, accessed April 27, 2020. [https://www.omniconvert.com/blog/consumer-behavior-in-marketing-patterns-types-segmentation.html#What\\_is\\_the\\_meaning\\_of\\_consumer\\_behavior](https://www.omniconvert.com/blog/consumer-behavior-in-marketing-patterns-types-segmentation.html#What_is_the_meaning_of_consumer_behavior).

<sup>23</sup> N Ramya and Dr. SA Mohamed Ali, "Factors Affecting Consumer Buying Behavior," *International Journal of Applied Research* 2, no. 10 (2016).

<sup>24</sup> Jang et al., "How Consumers Use Product Reviews in the Purchase Decision Process," *Marketing Letters* 23, no. 3 (2012).

from how consumers know about a product to make purchasing decisions. The consumer follows decision-making process steps to arrive at the final buying decisions which are problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase evaluation.

Buying problem arises only when there is unmet need or problem is recognized.<sup>25</sup> Buying behavior starts when customers realize that they want or need something. In the first step, consumers will recognize the needs in the market that can be satisfied by products or services. Second, consumers try to find products that meet their needs and start searching for information about the products. If consumers know very little about a product and the product does not provide them with enough information, then they will likely continue to collect information from various sources. The major source of information for customers, and the sources which influence their buying behavior are the discussion of friends and relatives, commercials and advertisements, public and experience. There are many different options available to choose from, so it's not possible for consumers to examine them one by one. After grasping this information, consumers began to consider alternatives and weighed the factors against each other to help them narrow their choices. Usually, consumers will evaluate the choice based on the characteristics, importance, trust in the brand, satisfaction, etc. of the product. An anxious consumer likely engages in risk-averse behaviors and chooses a familiar, comforting brand.<sup>26</sup> Once the consumers have considered the alternatives of various brand, they will then have their own internal struggle as to factors which are important, and which are not. So, many

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<sup>25</sup> S.Jaideep, "Top 5 Stages of Consumer Buying Process," (2014), <http://www.yourarticlelibrary.com/consumers/top-5-stages-of-consumer-buying-process/48596>.

<sup>26</sup> Nancy M. Puccinelli et al., "Customer Experience Management in Retailing: Understanding the Buying Process," *Journal of Retailing* 85, no. 1 (2009).

factors further affect whether buying intention result into actual purchase which also played their role in the evaluation of alternatives. In essence, customers will consider all alternatives, choose the most important factors for them according to the situation, and then finally make a purchase decision. In the final stage, the post-purchase evaluation, consumers will determine whether they are satisfied with the purchase result.

### **Motivation Affects Consumers' Buying Behavior**

Consumer's buying behavior involves different processes and contains many factors, particularity and characteristics will affect the actual situation of the individual. The behavioral aspect of consumer motivation concerns the actions someone takes before purchasing and consuming goods or services.<sup>27</sup> As well as the consumer's decision-making process, shopping habits, purchasing behavior, the brand purchased, or the retailer operated. It is also affected by many internal or psychological factors. The motivation of consumers is the basic degree of psychological driving behind a purchase when the demand level or consumers' perception of demand is quite strong. They will actively seek to satisfy that need through purchase. It is very well explained by the "Hierarchy of Needs" proposed by psychologist Abraham Maslow.<sup>28</sup> The theory consists of physiological needs, safety needs, social needs, esteem needs and self-actualization needs. The physiological needs and the safety needs are more urgent than other needs. Therefore, these needs become a motivation to guide consumer behavior to seek satisfaction.

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<sup>27</sup> Dianne Bown-Wilson, "Definition of Consumer Motivation," last modified January 26, accessed June 25, 2020. <https://bizfluent.com/about-6572429-definition-consumer-motivation.html>.

<sup>28</sup> Bianca Vainikka, "Psychological Factors Influencing Consumer Behavior," *Bachelor's Thesis* (2015), <https://businessjargons.com/psychological-factors-influencing-consumer-behavior.html>.

## **Types of Consumer Buying Behavior**

Consumer buying behavior is determined by the level of involvement that a consumer shows towards a purchase decision.<sup>29</sup> Consumer decision-making will vary based on the type of product they need to purchase. The amount of risk involved in a purchase also determines the buying behavior. Complex and expensive purchases are likely to involve more buyer deliberation and more participants.<sup>30</sup> There are four types of consumer buying behavior:

### **(a) Complex buying behavior**

Complex buying behavior is the consumer buying behavior in situations characterized by high consumer involvement in a purchase and significant perceived differences among brands.<sup>31</sup> It is especially encountered when consumers buy expensive products, high risky, infrequent purchases and are aware of significant differences between brands. Generally, consumers don't know much about product categories. They do thorough research and go through the learning process before buying. They will first develop their belief in the product, then develop their attitude and finally make a thoughtful purchase choice.

### **(b) Dissonance-reducing buying behavior**

Dissonance-reducing buying behavior occurs when consumers are highly involved with an expensive, infrequent or risky purchase, but see little difference among brands.<sup>32</sup> At this stage, consumers usually purchase certain products without

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<sup>29</sup> Clootrack, "Types of Consumer Behavior," accessed April 18, 2020. [https://clootrack.com/knowledge\\_base/types-of-consumer-behavior/](https://clootrack.com/knowledge_base/types-of-consumer-behavior/).

<sup>30</sup> Smriti Chand, "Consumer Buying Behaviours: 4 Important Types of Consumer Buying Behaviours," accessed April 18, 2020. <http://www.yourarticlelibrary.com/consumers/consumer-buying-behaviours-4-important-types-of-consumer-buying-behaviours/22153>.

<sup>31</sup> Maria-Cristiana MUNTIIU, "The Buying Decision Process and Types of Buying Decision Behaviour," *Series A. Economic Sciences* 2, no. 4 (2009).

<sup>32</sup> ZABANGA Marketing, "Dissonance Reducing Buying Behaviour," last modified June 15, accessed June 25, 2020. <https://www.zabanga.us/sales-promotion/dissonancereducing-buying-behaviour.html>.

much research. The brand differences are not significant; therefore, the consumer's purchase speed is relatively fast. They are most likely to respond to high prices or ease of purchase. Consumers may feel discordant when they are aware of some shortcomings of the product or receive information beneficial to the brand they have not purchased.

(c) Habitual buying behavior

Habitual buying behavior is the consumer buying behavior in situation characterized by low consumer involvement and few significant perceived brand differences.<sup>33</sup> Consumers rarely participate in product categories, they don't thoroughly study brand information, and they don't judge brands. When consumers buy cheap or frequently purchased products, such as commodities, they mainly consider brand familiarity rather than firm brand belief. If they continue to pursue the same brand, it's just habit, not strong brand loyalty.

(d) Variety seeking buying behavior

Some buying situations are characterized by low involvement but significant brand differences.<sup>34</sup> Under this behavior, consumers often make many brand changes. Due to the low cost of switching products, consumers may try new products out of curiosity. Consumers usually buy different products not out of dissatisfaction but to diversify.

### **Perception of Hunger Marketing on Buying Behavior**

Perception is regarded as the process of consumer identification, organization and interpretation of information in marketing. In the purchase decision process, it

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<sup>33</sup> MUNTHIU.

<sup>34</sup> Sales/Marketing Management, "Variety Seeking Buying Behavior," last modified March 21, accessed June 28, 2020. <https://www.citeman.com/1644-variety-seeking-buying-behavior.html>.

involves psychological variables and also affects consumer behavior. It is affected by individual factors namely taste, odor, information, health belief, nutritional product, familiarity and brand loyalty.<sup>35</sup> Perception establishes the meaning about a product or brand when a consumer makes initial contact.<sup>36</sup> The customer will decide which brands are remembered and which are forgotten. Instinctive responses are the main indicator of a brand's reputation.

Consumers will selectively perceive what they will classify into their needs and expectations. Product scarcity increases arousal, limiting consumers' ability to process information<sup>37</sup>, therefore they tend to hold perception of a rare product have a higher value and are more eager to own it. In the process of impulse buying behavior, consumers will simplify and dispense with the process of rational judgment and thinking.<sup>38</sup> Relatively, manufacturers also understand the mentality of consumers, so they often attract consumers by manipulating the supply and demand of products to create scarcity and ignite their desire to buy. According to the scarcity concept in commodity theory and its psychological impact on human beings, scarce performance increases the value of any item and people's desires and is generally followed in human life, forming the basis of economic behavior.

### **Major Components Involved in Such Perception Process**

Different people have different ways of thinking, feelings, and they have

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<sup>35</sup> UK Essays, "The Definition of Perception Marketing Essay," last modified May 12, accessed May 19, 2020. <https://www.ukessays.com/essays/marketing/the-definition-of-perception-marketing-essay.php#citethis>.

<sup>36</sup> Vanessa Cross, "The Stages of Perception in Marketing," last modified March 6, accessed May 20, 2020. <https://smallbusiness.chron.com/stages-perception-marketing-22161.html>.

<sup>37</sup> Rebecca Hamilton et al., "The Effects of Scarcity on Consumer Decision Journeys," *Journal of the Academy of Marketing Science* no. 47 (2018).

<sup>38</sup> 林淑瓊 et al., "以體驗行銷觀點探討網路商店促成購買衝動之影響因素," *中華民國資訊管理學報* 23, no. 3 (2016).

different meanings for the same thing. There are three important components involved in perception, which are the perceiver, the target, and the situation.<sup>39</sup> The perceiver means the person who explains the stimulus, his consciousness focuses on the stimulus and starts to perceive it. The target is the entity that the perceptor interprets based on the stimulus generated by the target or a third party and it include people, places, things, and events. The situation includes environmental factors, the time and degree of stimulation that people are exposed to will also affect the perception process.

### **Significance of Perception on Consumers' Buying Behavior**

Consumer perception is a marketing concept that tells us what consumers think about a brand, a company or a product. The perceptions consumers have of a business and its products or service have a dramatic effect on buying behavior.<sup>40</sup> Consumer can be positive or negative feelings, perceptions and expectations. Perception is directly related to consumer behavior.<sup>41</sup> After consumers obtain the product, the overall evaluation of its utility is greater than the expenditure, the higher the customer's perceived value of the product. Consumers' buying behavior depend on the perceived value of the product. The higher the perceived value, the higher their willingness to buy. There are numerous factors that affect perception, both internal and external. From the internal perspective, consumers' perception is greatly influenced by their personal experience while buying and using a certain product.

According to the theory of cognitive dissonance, when post-purchase conflicts

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<sup>39</sup> R Gilorkar, "Organisational Behaviour Perception," accessed June 1, 2020.

<https://www.economicdiscussion.net/organisation/organisational-behaviour-perception/31606>.

<sup>40</sup> Stan Mack, "Role of Perception in Consumer Behavior," last modified March 5, accessed June 7, 2020. <https://smallbusiness.chron.com/role-perception-consumer-behavior-67136.html>.

<sup>41</sup> Durmaz Yakup, "A Theortical Approach to the Role of Perception on the Consumer Buying Decision Process," *Asian Journal of Business and Management Sciences* 1, no. 4 (2011).

occur, people will try to seek support information or distort contradictory information to seek a balance of psychological stereotypes. People are seeking consistency between their perception of marketing and their belief and attitudes.

## **Online Shoppers**

### **The Trend of Online Shopping**

Online shopping that can buy goods all over the world without going out has become a consumer trend sweeping countries. It has been widely accepted as a way of purchasing and become a more popular means in the Internet world. After entering the Internet era, consumers' shopping behavior began to change. Consumers regard the internet as a tool and a part of life and operate it more easily.<sup>42</sup> Consumers have controlled the autonomy of information; online search evaluation and price comparison have become one of the common shopping habits of modern people. Online shopping is easier and more convenient than traditional shopping. Price, the trust, the convenience and the recommendations have been identified as important factors.<sup>43</sup> Even with shopping behaviors related to money, more consumers can successfully complete it through online banking operations. Increasingly social media has evolved into a space that serves the needs of businesses – everything from advertising, to brand-consumer engagement and ecommerce sales.<sup>44</sup> Nowadays, consumer shopping is no longer restricted to physical stores, and shopping opportunities happen almost all the time. The sources of information consumers obtain have gradually shifted from televisions, newspapers and magazines to

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<sup>42</sup> EOL 東方線上消費者研究集團, "2020 消費者生活型態趨勢研究," last modified December 20, accessed November 26, 2020. <https://www.brain.com.tw/news/articlecontent?ID=48446>.

<sup>43</sup> Sajjad Nazir et al., "How Online Shopping Is Affecting Consumers Buying Behavior in Pakistan," *International Journal of Computer Science Issues* 9, no. 3 (2012).

<sup>44</sup> Stefani Lanteri, "Persona Spotlight: The Online Shopper," last modified Nov 19, accessed Oct 15, 2020. <https://blog.globalwebindex.com/marketing/persona-spotlight-the-online-shopper/>.

communities and online search engines. Online shopping has provided more satisfaction to modern consumers seeking convenience and speed.

### **Online Shopper Decision-Making Process**

The decision-making process of traditional shopping and online shopping is not exactly the same. The differences rely on consumer's information search process and purchase environment.<sup>45</sup> The information mainly includes website marketing work and social and cultural influences. Website marketing uses direct external factors, such as TV or website advertising and promotion. While these shifts in marketing may seem very different, the underlying theme is the same: customers are becoming more powerful in making their own purchasing decisions.<sup>46</sup> When customers browse websites and see banner ads or online promotions, these advertisements may attract their attention and stimulate particular products that interest them, but also provide their product features and where to buy. Online shopping makes it easy for customers to obtain product information, and buyers can also use an online shopping list with a preservation engine to purchase products they have purchased. Consumers even store the list of products they are interested in the shopping cart of the website, which can be browsed and ordered at any time. Online shoppers are more conservative and sensitive to products, and price is also an important factor in consumer decision-making. The product information on the website is usually more detailed and the price is usually lower. Compared with traditional purchases, online shopping can save consumers more money.

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<sup>45</sup> Liying Wei, "Decision-Making Behaviours toward Online Shopping," *International Journal of Marketing Studies* 8, no. 3 (2016), <http://dx.doi.org/10.5539/ijms.v8n3p111>.

<sup>46</sup> Bill Su, "The Evolution of Consumer Behavior in the Digital Age," last modified Nov 17, accessed Oct 15, 2020. <https://medium.com/analytics-for-humans/the-evolution-of-consumer-behavior-in-the-digital-age-917a93c15888>.

## Method of Data Collection

### Methodological Approach for Similar Studies

There are many kinds of marketing strategies and hunger marketing is a fairly new term in the market. However, with the spread of the media, it becomes more familiar and popular. Nowadays, hunger marketing is a common marketing strategy which is used by more and more suppliers. Based on the data collected, the most common claim was that emphasizing scarcity has always been the main method of hunger marketing. That is, the supplier deliberately reduces the amount of supply each time and expects to create the illusion that supply exceeds demand.

Although hunger marketing has become common, its related research is quite lacking. According to literature and online information, it can be known that consumers' buying behavior may affect the effectiveness of hunger marketing. However, how the scarcity of products affects consumers' purchase intention and the perceived value of consumers in the face of hunger marketing is still not clearly understood. Therefore, this study intends to integrate the different factors that mainly affect hunger marketing and provide a more complete framework.

Based on research by Luo, Wang, Kang, and Tsai: An Exploratory Study of Hunger Marketing: Investigating the Effects of Limited Edition on Consumers' Purchase Intention<sup>47</sup> they attempted to explain how the effect of product rarity affects consumers' perceived value and purchase intention through hypothetical expensive, perceived quality and perceived sacrifice. Through the structural equation patterns analysis, it was found that perceived scarcity positively affects the product's hypothesis of expensive, hypothesis expensive positively affects perceived quality,

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<sup>47</sup> 羅聖凱 et al., "飢餓行銷之探索性研究-限量品對消費者購買意圖之影響," 國立高雄科技大學企業管理系 (

perceived quality positively affects perceived value, and perceived value positively affects product purchase intention.

According to Su's research was *The Influence of Consumer Buying Behavior, Perception of Brand and Hunger Marketing Effect on Purchase Intention*.<sup>48</sup> He believed that if the hunger marketing method is properly operated, the added value of the brand can be increased. He also raised the question that such a large scale of marketing growth can be achieved only through marketing? His research mainly explored the influence of consumer buying behavior on the effectiveness of hunger marketing and brand recognition, which in turn affects the degree of purchase intention. The result showed that different consumers have different purchasing behaviors, so their acceptance of hunger marketing is also different. According to different demographic variables and the degree of brand emphasis, they might have related effects, and thus change purchase intention.

### **A Survey Based on Questionnaire**

Questionnaire is one of the most common method to collect quantitative data and it can efficiently collect a large number of samples. It has no time and space limits, this research was allowed to send the questionnaire to anyone anywhere with online and mobile tools, as long as they have the corresponding link. Since there was no need to visit the interviewees in person or continue the study over a long period, the research can receive the response more easily and quickly. It was essentially valid and cost-effective. The original data collected from the questionnaire can be compared and summarized by statistical analysis. In contrast, the sample of the qualitative

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<sup>48</sup> 蘇柏龍, "消費者購買行為與品牌重視度和飢餓行銷成效對購買意願的影響," *義守大學資訊管理學系碩士論文* (2015).

method was small and most of them are answered in a general term. Therefore, it was less suitable for statistical analysis of marketing. In addition, previous related researches were based on the questionnaire survey, so this method was the most suitable for this research.

## METHODOLOGY

### **Research Design**

This study is a questionnaire survey. Mainly understand the online shoppers' online shopping usage and their recognition of the description of various factors in hunger marketing. In order to further understand what factor will affect their purchase intention, and further explore the perceived impact of hunger marketing on online shoppers' buying behavior.

### **Sources of Data**

The study mainly took online shoppers as the study population and targeted specific sites that frequently conducts hunger marketing promotions such as Shopee, Yahoo, etc. Seek for the specific online shoppers that have purchased products under countdown clock and once gave a product evaluation then emailed those people a questionnaire for further research. Although it was possible to know who left an evaluation under the product from the shopping website, the site's mechanism did not allow direct mail to consumers so that their contact information cannot be obtained. Therefore, a survey of non-specific websites is an alternative to this research.

The questionnaires were provided to random consumers over the public Internet, who must be online shoppers. The feasible way to send the questionnaire was go through the private messages and line groups of friends surrounding, as well as Instagram and Facebook communities. In addition, questionnaires were sent again to friends around them or to their public social networking sites through classmates or friends.

## **Instrument and Data Collection**

Before the questionnaire was officially sent, this study will go through some steps. First, divide the questionnaire into specific parts according to the indicators, then design related questions according to the literature and finally ensure the validity of the content to collect valid data. The questionnaire was designed by Likert's five-point scale, with five options of "strongly disagree", "disagree", "no opinion", "agree", and "strongly agree", giving them quantitative scores as 5, 4, 3, 2, 1.

The questionnaire was divided into three parts, demographic variables, attitude scale and online shopping usage status of online shoppers. The first part was demographic variables, which were mainly used to investigate the background information of respondents. It included gender, age, occupation, education level, living area, and average monthly income. There were four attitude scales in the second part: hunger marketing, brand impression, media campaign, and scarcity then there were corresponding questions in each attitude scale. For example, whether the basic techniques of hunger marketing, respondents' impression of brands and the promotion of limited products through media will stimulate their purchase intention. In scarcity, it mainly discussed the psychological aspects of respondents. Since the study population was online shoppers, the last part was to investigate their monthly online shopping times, the most commonly used online shopping platforms, the main types of goods purchased, and the average monthly amount spent on online shopping.

### **Tools for Data Analysis**

Based on the collected valid samples, the study mainly had two parts: descriptive statistics and inferential statistics. The study first described the statistical information on demographic variables and the usage of online shopping by respondents. The tool for data analysis was SPSS. In descriptive statistics, it included testing differences between genders under various factors with independent sample T-test; One-way ANOVA was used to compare the differences in the factor among the respondents from different age, occasion, education and average monthly income. When the p-value was higher than 0.05, the differences between groups would be regarded as insignificant. In ANOVA, if there were significant differences in the sample averages of groups, post hoc would be further used to analyze in detail about which groups had the significant differences. In inferential statistics, this study used linear regression to explore the correlation between hunger marketing, brand image, media campaigns, and scarcity. In order to verify whether different variables were relevant to hunger marketing.

## DATA ANALYSIS

### **Demographic Information of the Collected Data**

A total of 384 valid questionnaires were collected, the detailed demographic information of respondents was shown in Appendix 1. The respondents were mostly female. For the age group, 21 to 30 years old respondents were the largest percentage, and there were no respondents over 50 years old. In terms of education, the respondents in University were the most. The respondents with education level of Junior High School and Elementary School accounted for only a small part. In the occupational distribution, student was the most and the second was service industry. Other occupations accounted for very few parts, including technology industry, designer, architect, etc. The highest living area of respondents was Northern. Because the respondents were students in the majority, the average monthly incomes located less than 10,000 had the highest percentage. However, there were also a few people earn more than 80,000 a month.

## **Online Shopping Profiles of Respondents**

In addition to basic demographic variables, the study also surveyed respondents' online shopping profiles. The detailed statistics were shown in appendix 2. Among the respondents, the average number of online shopping per month was 1 to 3 times accounted for the most. Two of them averaged more than 11 times per month. The online shopping platform most frequently used by respondents was Shopee. There were also some platforms that respondents often use, including official websites, shopping clubs, Amazon and surrogate shopping. The type of product that respondents often buy online were clothing. There were also other products that they often buy online, including star accessories, pet products, camping supplies and toys. The most respondents spend 1000 to 3000 dollars on online shopping each month. There were only three respondents spend more than 10000 dollars.

## **Factor Analysis**

Before data analysis, the study had carried out two steps. First, organizing and coding all valid questionnaire data in SPSS. The questionnaire was divided into four factors: hunger marketing, brand impression, media promotion and scarcity. Second, the study tested the construct validity of them through factor analysis to understand whether the variables were classified into appropriate factor. The results were displayed in the Table 1. It showed that all of variables were positive factor loadings which were greater than 0.4 and provided only one factor score. However, in the Brand Impression factor, one of the questions “No matter whether the brand or public praise is known to me or not, as long as the limited-edition products are what I like, I will buy them.” did not provide a factor score, which proved that it was not a meaningful functional factor. In order to allow the further analysis successfully, this question will not be used. With only one factor score in each construct, the study was allowed to use construct average score to perform analysis.

**Table 1. Summary of Factor Analysis for Hunger Marketing****Table 1. Summary of Factor Analysis for Hunger Marketing**

<b>Factors</b>	<b>Code</b>	<b>Questions</b>	<b>Factor Loadings</b>
Hunger Marketing	HM1	When the product is "limited" supply, I will buy it as soon as possible.	.863
	HM2	When the product is only available during the "limited period", I will buy it as soon as possible.	.899
	HM3	When the product is at a "limited time" discount, I will buy it as soon as possible.	.790
Brand Impression	BR1	Before deciding whether to snap up a limited-edition product, I will first consider the degree of trust in the brand.	.778
	BR2	I think the limited-product brand must have a certain degree of popularity and reputation to make me willing to buy.	.797
	BR3	Even if a limited-edition product is snapped up, if it is a brand that I am not familiar with, I would not want to buy it.	.742
	BR4	No matter whether the brand or public praise is known to me or not, as long as the limited-edition products are what I like, I will buy them.	
Media Promotion	ME1	When the media reported that a certain product was sold in a limited amount and caused a rush, it would make me want to follow the rush.	.794
	ME2	When I see an advertisement for a product with a limited time discount, it will attract me to buy further.	.787
	ME3	When I see a limited product recommended by professionals, it makes me want to buy too.	.820
	ME4	When I see a limited product endorsed by a celebrity, it makes me want to buy it too.	.829
	ME5	I think that the trend of limited products conveyed on mass media and social websites will make me want to buy along.	.794
Scarcity	SC1	When the commodity is scarce or unavailable, the more I want it.	.829
	SC2	If I don't buy the limited items in time, they will no longer be available, which will prompt me to buy immediately.	.837
	SC3	When the product is discounted for a limited time, I will buy it quickly because I am afraid of missing the discount.	.761
	SC4	I think limited products have a higher value than general products.	.762
	SC5	I am willing to pay a higher price than general products for limited products.	.812

After confirming the questions of each construct, the various variables of four different constructs were summed and averaged to generate new variable scores but not include the aforementioned meaningless functional factor. Take the hunger marketing factor as an example, it contained three variables. The way to calculate a new average score was to add the three variables and divide by three  $(HM1+HM2+HM3)/3$ .

The study had three research questions. The first one was “Whether consumers' willingness to buy hunger marketing products is related to their brand impressions of the product?” with its average score  $BR1+BR2+BR3/3$ . The second was “Whether media campaigns drive consumers' desire to buy hunger marketing products?” with its average score  $ME1+ME2+ME3+ME4+ME5/5$ . The third was “Whether scarcity drive consumers' desire to buy hunger marketing products?” with its average score  $SC1+SC2+SC3+SC4+SC5/5$ .

Based on the average score, this study used different analysis methods for the next analysis. It included the mean score of the T-test and ANOVA were used to illustrate the difference between demographic variables in different factors. The average scores of various constructs were used to perform regression analysis on the correlation between different variables and hunger marketing to further answer each research question. The process and results were described in detail below.

### **The Correlation between Brand Impression and Hunger Marketing**

The result for research question one showed that there was a positive correlation between brand impression and hunger marketing. Brand impression was a part of hunger marketing, but also a consideration of consumer purchase decision. When they have insufficient trust in the brand or are not familiar with it, they will not buy easily. According to line regression,  $\beta=.168$  and  $p=.001$ .  $\beta$  was positive and  $p$  below 0.05, which mean brand impression and hunger marketing were positively correlated. Therefore, when consumers have a good impression or well-known of the brand in hunger marketing, the marketing was beneficial.

### **Differences between Demographic Variables in Brand Impression**

#### **On Gender Difference**

There was no significant difference in brand impression between males and females in hunger marketing. The females were much more than males, so this study wanted to understand whether females attached more importance to brand impression than males. The study used T-test to compare the average brand impression of hunger marketing for two groups. The result showed that the  $t$  value was 0.649 and  $p$  was 0.517 which was higher than 0.05. It has not been proven that which group had significant difference greater than the other.

### On Age Difference

The different age groups had no significant differences in brand impression.

ANOVA was used to compare the average brand impression among each group. The result showed that  $p=.069$  which was higher than 0.05 and it responded the difference in brand impression among different ages was not significant.

### On Education Difference

There were significant differences in brand impression among different education groups. The education of the respondents was divided into five groups, and ANOVA was tested to compare the average brand impression of each groups. According to the result,  $p=.000$  which was below 0.05. Then Scheffe table in Post Hoc test showed that there was a significant difference between education with high school and college, and also between high school and graduate school. The mean score of college was 4.3333, it was higher than the mean score of high school which was 4.0437; the mean score of graduate school was 4.5507 and it was also higher than the mean score of high school. In other words, both education with college and graduate school attach significantly difference than high school in brand impression of hunger marketing. The more educated people are, the more important they are to the brand, they will not easily buy unknown brand goods.

### On Occupation Difference

The different occupation groups had no significant differences in brand impression of hunger marketing. According to ANOVA, the p value was 0.105. It responded the difference in brand impression among different occupations were not significant.

### On Monthly Income Difference

There were no significant differences of brand impression among people with different monthly income in hunger marketing. After running ANOVA, the result showed that  $p=.442$ . Because p value was higher than 0.05, it agreed the statement above.

## **The Correlation between Media Campaigns and Hunger Marketing**

The result for research question two showed that media campaigns was significantly and positively related to hunger marketing. Media campaigns have become the key to increasing consumers' purchasing intentions in hunger marketing. The recognition of celebrities provides a good reputation for the product, and the influential advertising helped to make consumers aware of the event. Based on regression,  $\beta=.574$  which was positive and  $p=.000$  which below 0.05. It meant the two variables had significantly and positively correlation. In conclusion, it was beneficial to hunger marketing when the information of activities was known by consumers and the endorsement or recognition of products by celebrities through media publicity.

## **Differences between Demographic Variables in Media Campaigns**

### **On Gender Difference**

In media campaigns of hunger marketing, there was significant difference between males and females. Because the results showed  $p=0.009$  which was below 0.05 after doing T-test. The mean score of males was 2.9604 and the mean score of females was 3.2451. Therefore, females had more significant difference in media campaigns than males. Media campaigns are more influential for female. If a product is promoted or advertised by the media, female will be more willing to buy than male

### On Age Difference

There was significant difference between different age groups in media campaigns of hunger marketing. According to ANOVA, p value was 0.001. The Scheffe table in Post Hoc test indicated that the age between 21 to 30 and 31 to 40 and the age between 31 to 40 and 41 to 50 had significant difference. The mean score of the age 21 to 30 was 3.2900, the mean score of the age 31 to 40 was 2.6867 and the mean score of the age 41 to 50 was 3.3600. In conclusion, the differences of the group 21 to 30 years old and 41 to 50 years old were more significant than 31 to 40 years old in media campaigns.

### On Education Difference

Based on ANOVA, there were significant differences in media campaigns among different education groups with  $p=.006$ . However, Post Hoc test did not clearly indicate which groups had significantly different.

### On Occupation Difference

The result of ANOVA showed that  $p=.183$  which was higher than 0.05. It proved there were no significant differences in media campaigns among people of different occupation groups.

### On Monthly Income Difference

The result turned out to have no significant differences in media campaigns of hunger marketing among people with different monthly income. After doing ANOVA, the result showed  $p=.137$  and it was higher than 0.05 which agree to the above statement.

### **The Correlation between Scarcity and Hunger Marketing**

The result for research question three showed that scarcity was also significantly and positively related to hunger marketing. Scarcity was a universal aspect of people's life and a basic element of hunger marketing. It can not only stimulate consumers' purchase intentions, but also encourage them to pay relatively higher prices. According to line regression,  $\beta=.615$  and  $p=.000$ . The beta value was positive and  $p$  below 0.05 which further proved that scarcity and hunger marketing were positively correlated. In conclusion, the scarcity made consumers worry about missing out on goods or time and quickly buy which can be beneficial to hunger marketing.

### **Differences between Demographic Variables in Scarcity**

#### **On Gender Difference**

There was no significant difference between males and females of scarcity in hunger marketing. After running T test, the result showed  $p=.361$ . It was higher than 0.05 and further agree with the statement above.

#### **On Age Difference**

There was no significant difference in scarcity among each age group of hunger marketing. ANOVA was used to analyze the differences, the result indicated  $p=.141$  which was higher than 0.05. Therefore, the statement above was supported.

#### **On Education Difference**

The different education groups had significant differences in scarcity of hunger marketing. According to ANOVA, the result showed  $p=.025$  which below 0.05. The

Scheffe table in Post Hoc test indicated that there was significant difference between education group of elementary school and junior high school. The mean score of group elementary school was 4.8000 and the mean score of group junior high school was 2.4000. Therefore, group elementary school was significantly different than group junior high school. Less educated people are more attracted to scarcity. They usually don't think twice when they get the news that the quantity of goods is limited. Instead, they will buy on impulse.

#### On Occupation Difference

The different occupation groups had no significant differences in scarcity. After running ANOVA, the result showed  $p=.654$ . It was higher than 0.05 and further agree with the statement above.

#### On Monthly Income Difference

The result turned out to have no significant differences in scarcity among people with different monthly income after doing ANOVA. The p value was 0.734 which was higher than 0.05. Therefore, it was proved to be insignificant.

## **Data Summary**

Based on data analysis, the major findings for research questions can be summarized into the following:

1. There was a significant positive correlation between brand impression and hunger marketing.
2. There was a significant positive correlation between media campaigns and hunger marketing.
3. There was a significant positive correlation between scarcity and hunger marketing.

In term of different demographic variables, gender and age groups had significant differences in media campaigns and education levels had significant differences in all factors. However, occupation and monthly income groups had no significant differences in each factor.

## CONCLUSION AND SUGGESTION

The three factors included in hunger marketing which were brand impression, media campaigns and scarcity will indeed have a relative increase in its effectiveness.

### **Discussion one: Whether consumers' willingness to buy hunger marketing products is related to their brand impressions of the product?**

From the significant correlation between brand impression and hunger marketing, it can be known that brand is still one of consumers' priority considerations. Higher depth of brand awareness leads to increased sales if consumers are more likely to think of the brand when the need arises.<sup>49</sup> Before deciding whether to snap up a limited-edition product, online shoppers usually first consider their trust in the brand. According to the questionnaire responses, most people think that limited-product brands must have a certain degree of popularity and reputation to make them willing to buy. Therefore, consumers' impression of the brand is an important factor in hunger marketing. Even if the product is limited, they may not buy it if the brand is not known or unfamiliar for them.

### **Discussion two: Whether media campaigns drive consumers' desire to buy hunger marketing products?**

The media campaigns can be one of the factors that motivates online shoppers to buy hungry marketing products. Networks and communities are the most frequently contacted platforms for online shoppers. The information publicized by the media may successfully influence their buying intention. Although online shoppers do not make very large online shopping per month on average, when they see an

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<sup>49</sup> Hoeffler and Kelle.

advertisement for a product on a special offer for a limited time, they will usually be attracted to buy further. In addition, limited products are recommended by professionals and endorsements by celebrities usually make them want to buy too. However, some of them will not be attracted. For online shoppers, the trend of limited-edition products communicated on mass communication and social networking sites may be a factor in their willingness to buy.

### **Discussion three: Whether online shoppers increase their purchasing desire due to scarcity?**

The past research pointed out that when consumers realize that it is impossible to buy a certain product, they will give the product a higher purchase value, and the motivation to obtain the product will be strengthened.<sup>50</sup> This study found that there was indeed a positive correlation between scarcity and hunger marketing. The scarcity of goods or the limited time for discounts made people no longer available if they were not in time will encourage people's purchase intention. In addition, it's valuable for consumers to obtain things that others have not obtained. Scarcity not only stimulates consumers' willingness to buy but may also encourage them to pay relatively high prices.

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<sup>50</sup> 楊雅棠, 邱美惠, and 翁郁權, "獨特性需求、限量策略之消費知覺價值與購買意願關係之研究—以中式白酒產品為例."

## Conclusion

According to the past study, the effectiveness of hunger marketing will be significantly affected by different demographic variables, and the most direct correlation is monthly income.<sup>51</sup> However, the different monthly income groups in this study had no significant differences in each factor of hunger marketing. There was not much difference between attitude scales in the various factors of hunger marketing. Online shoppers' perception of hunger marketing did not vary greatly with age, gender, income and education level, and had little impact on the effectiveness of hunger marketing.

Regardless of the brand, media, or consumer perception of the scarcity of goods, they are an important component of hunger marketing operations. At the same time of media publicity, brand is also regarded as an important component. Developing a relationship with the brand is crucial, that's where social media comes into play.<sup>52</sup> Therefore, if the brand of limited products is well-known, and the information is conveyed through the media, it will be very beneficial to the manufacturers operating this strategy.

## Suggestion

The effectiveness of hunger marketing may require consideration of different demographic variables in order for the effectiveness to be visible. However, the majority of respondents to this study were students, so that the results did not differ significantly in different demographic variables. The monthly income of students was generally not high. Even if their buying intention were stimulated by hunger marketing, they were not willing to pay a higher price than the general commodity to

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<sup>51</sup> 蘇柏龍, "消費者購買行為與品牌重視度和飢餓行銷成效對購買意願的影響," (2015).

<sup>52</sup> Nancy Engelhardt Furlow, "Find Us on Facebook: How Cause Marketing Has Embraced Social Media," *Journal of Marketing Development and Competitiveness* 5, no. 6 (2011).

own it. For them, hunger marketing itself was less a reference focus than a financial consideration. If the distribution of the ethnic groups was more even, it might improve the effectiveness of hunger marketing and show which ethnic group was mainly attracted.

## APPENDIX A

### 飢餓行銷對網路購物者購買行為的感知影響之問卷調查

親愛的先生/小姐：

這是一份學術研究問卷，主要目的是探討「飢餓行銷對網路購物者購買行為的感知影響」。在此希望能耽誤您幾分鐘的時間，依您的真實感受填寫問卷，懇請您提供寶貴意見。

本問卷採不記名方式作答，您的回答僅供學術研究使用，絕不對外公開，請放心填寫。感謝您在百忙之中抽空填答此問卷，您的協助將使本研究更具貢獻，在此獻上最誠摯的謝意。

敬祝 事事順心、健康愉快！

文藻外語大學國際事務系

指導老師：林建宏 教授

學生：羅祉麟

#### 第一部分：網購使用狀況

1. 平均每個月網購次數：

1~3 次 4~6 次 7~10 次 11 次以上

2. 最常使用的網購平台：

蝦皮商城 momo 購物網 PChome 淘寶 Yahoo 奇摩拍賣

博客來 樂天市場 松果購物 其他：\_\_\_\_\_

3. 通常在網路上購買哪一種類的商品?(可複選)

文具 食品/保健 美妝/保養 3C 電子 家電/視聽

鞋、包、配飾 服飾 傢俱/寢室 書籍 其他：\_\_\_\_\_

4. 平均每個月花在網購上的金額：

500 元以下 501~1000 元 1001~3000 元 3001~5000 元

5001~7000 元 7001~10000 元 10001 元以上

## 第二部分：飢餓行銷

1. 當商品是「限量」時，我會趕快購買

非常同意 同意 普通 不同意 非常不同意

2. 當商品在「限定期間」才能買到時，我會趕快購買

非常同意 同意 普通 不同意 非常不同意

3. 當商品在「限時」特價時，我會趕快購買

非常同意 同意 普通 不同意 非常不同意

## 第三部分：品牌印象

1. 在決定要不要搶購限量商品前，我會先考慮對該品牌的信任程度

非常同意 同意 普通 不同意 非常不同意

2. 我認為限量品的品牌必須具有一定的知名度和口碑我才會購買

非常同意 同意 普通 不同意 非常不同意

3. 即使某限量商品被瘋狂搶購，若為我不熟悉的品牌我就不會想要購買

非常同意 同意 普通 不同意 非常不同意

4. 無論品牌、口碑是不是我所知悉，只要限量商品是我喜歡的我都會購買

非常同意 同意 普通 不同意 非常不同意

## 第四部分：促銷、媒體宣傳

1. 當媒體報導某商品因限量販售而造成搶購時，會使我也想跟著搶購

非常同意 同意 普通 不同意 非常不同意

2. 當我看見某商品正在限時特價的廣告，會吸引我進一步購買

非常同意 同意 普通 不同意 非常不同意

3. 當我看見某限量品受專業人士推薦時，會讓我也想購買

非常同意 同意 普通 不同意 非常不同意

4. 當我看見某限量品受名人代言時，會讓我也想購買

非常同意 同意 普通 不同意 非常不同意

5. 我認為大眾傳播及社群網站上傳達的限量品風潮會讓我想跟著購買

非常同意 同意 普通 不同意 非常不同意

### 第五部分：知覺稀少性

1. 我會因為商品越是稀少或越是得不到就越想要

非常同意 同意 普通 不同意 非常不同意

2. 如果不及時購買限量商品就將不再能夠獲得，會促使我立即購買

非常同意 同意 普通 不同意 非常不同意

3. 當商品在限時特價時，我會因為害怕錯失優惠而趕快購買

非常同意 同意 普通 不同意 非常不同意

4. 我認為限量商品相較於一般商品具有較高的價值

非常同意 同意 普通 不同意 非常不同意

5. 我願意支付相對一般商品較高的價格購買限量品

非常同意 同意 普通 不同意 非常不同意

## 第六部分：基本資料

### 1. 性別：

男生 女生

### 2. 年齡：

20 歲以下 21~30 歲 31~40 歲 41~50 歲 51 歲以上

### 3. 教育程度：

國小 國中 高中（職） 專科及大學 研究所及以上

### 4. 職業：

學生 服務業 農林漁牧 製造業 金融業 軍公教

自由業 家庭主婦 其他：\_\_\_\_\_

### 5. 居住地區：

北部 中部 南部 東部 外島

### 6. 平均每月收入：

10000 元以下 10001 元~20000 元 20001~30000 元

30001~40000 元 40001~50000 元 50001~60000 元

60001~70000 元 70001~80000 元 80001 元以上

## APPENDIX B. Demographic Information of Respondents

**Table 2. Demographic Information of Respondents**

Attribute	Demographic	Percentage
Gender	Male	23.7%
	Female	76.3%
Age	Under 20	25.3%
	21 to 30	60.2%
	31 to 40	7.8%
	41 to 50	6.5%
	Over 51	0%
Education	Elementary School	0.5%
	Junior High School	1.3%
	High School	15.9%
	University	64.3%
	Graduate School	18%
Occupation	Student	69.8%
	Service industry	10.7%
	Agriculture, Forestry, Fishing, and Animal husbandry	0.8%
	Manufacturer	4.7%
	Financial sector	1.6%
	Government employee	5.5%
	Freelance	2.3%
	Housewife	1.8%
Living area	Northern	49.5%
	Middle	17.4%
	Southern	29.9%
	Eastern	2.6%
	Outlying island	0.5%
Average monthly incomes	Under 10000	44%
	10001 to 20000	22.1%
	20001 to 30000	11.5%
	30001 to 40000	8.6%
	40001 to 50000	3.9%
	50001 to 60000	3.6%
	60001 to 70000	1%
	70001 to 80000	1.3%
	Over 80000	3.9%

## APPENDIX C. Online Shopping Usage of Respondents

**Table 3. Online Shopping Usage of Respondents**

Attribute	Demographic	Percentage
Average number of Online Shopping per month	1 to 3 times	75%
	4 to 6 times	21.1%
	7 to 10 times	3.4%
	Over 11 times	0.5%
The most commonly used online shopping platform	Shopee	77.3%
	momo	4.4%
	PChome	4.7%
	Taobao	2.3%
	Yahoo	1.8%
	Books(博客來)	5.7%
	Rakuten	0%
Others	3.8%	
What kind of products are usually purchased online?	Stationery	16.4%
	Food / Health care	18.8%
	Beauty/ Care Products	38%
	Electronic devices	26%
	Appliances / Audiovisual	2.3%
	Shoes, Bags, Accessories	51.3%
	Clothing	61.7%
	Furniture	5.7%
	Books	15.4%
Others	5%	
The average amount spent on online shopping per month.	Under 500	14.6%
	501 to 1000 dollars	33.3%
	1001 to 3000 dollars	36.5%
	3001 to 5000 dollars	10.9%
	5001 to 7000 dollars	2.1%
	7001 to 10000 dollars	1.8%
	Over 10000 dollars	0.8%

\*Source: sorted by the author

## APPENDIX D. Regression

**Table 4. Regression**

<b>Standardized Regression Coefficients from Analyses Predicting Hunger Marketing(N=384)</b>	
<b>Independent Variable</b>	<b>Model 1</b>
<b>Brand Impression</b>	0.168**
<b>Media Campaigns</b>	0.574***
<b>Scarcity</b>	0.615***
<b>F</b>	100.534
$\Delta F$	100.534
<b>R<sup>2</sup></b>	0.442
$\Delta R^2$	0.442
<b>Adjusted R<sup>2</sup></b>	0.438
P<0.05* ; P<0.01** ; P<0.001***	

## APPENDIX E. T test of Gender on Different Attitude Scale

**Table 5. T test of Gender on Different Attitude Scale**

<b>Attitude Scale</b>	<b>Gender</b>	<b>Number of samples</b>	<b>Mean</b>	<b>S.D.</b>	<b>DF</b>	<b>t value</b>	<b>p value</b>
<b>Brand Impression</b>	Male	91	4.3553	0.63596	382	0.649	0.517
	Female	293	4.3038	0.67000			
<b>Media Campaigns</b>	Male	91	2.9604	0.94385	382	2.637	0.009
	Female	293	3.2451	0.88497			
<b>Scarcity</b>	Male	91	3.0352	0.94309	382	0.914	0.361
	Female	293	3.1386	0.94219			

**APPENDIX F. ANOVA of Age on Different Attitudes Scale**

**Table 6. ANOVA of Age on Different Attitudes Scale**

<b>Attitude Scale</b>	<b>Age</b>	<b>Number of samples</b>	<b>Mean</b>	<b>S.D.</b>
<b>Brand Impression</b>	Under 20	97	4.1718	0.70237
	21 to 30	231	4.3463	0.65225
	31 to 40	30	4.4778	0.61702
	41 to 50	25	4.3733	0.57187
	Total	383	4.3142	0.66157
<b>Media Campaigns</b>	Under 20	97	3.0371	0.91211
	21 to 30	231	3.2900	0.82832
	31 to 40	30	2.6867	1.07342
	41 to 50	25	3.3600	1.03602
	Total	383	3.1833	0.90046
<b>Scarcity</b>	Under 20	97	3.0103	0.98673
	21 to 30	231	3.2052	0.83091
	31 to 40	30	2.8733	1.30514
	41 to 50	25	3.0480	1.10042
	Total	383	3.1196	0.93719

<b>Attitude Scale</b>		<b>Sum sq</b>	<b>df</b>	<b>Mean sq</b>	<b>F value</b>	<b>p value</b>
<b>Brand Impression</b>	Between Groups	3.095	3	1.032	2.383	0.069
	Within Groups	164.098	379	0.433		
	Total	167.193	382			
<b>Media Campaigns</b>	Between Groups	12.885	3	4.295	5.484**	0.001
	Within Groups	296.848	379	0.783		
	Total	309.733	382			
<b>Scarcity</b>	Between Groups	4.799	3	1.600	1.883	0.141
	Within Groups	330.725	379	0.873		
	Total	335.523	382			

**APPENDIX G. ANOVA of Education on Different Attitudes Scale**

**Table 7. ANOVA of Education on Different Attitudes Scale**

<b>Attitude Scale</b>	<b>Education</b>	<b>Number of samples</b>	<b>Mean</b>	<b>S.D.</b>
<b>Brand Impression</b>	Elementary School	2	4.0000	0.00000
	Junior High School	5	3.6667	0.00000
	High School	61	4.0437	0.78758
	University	247	4.3333	0.64040
	Graduate School	69	4.5507	0.52651
	Total	384	4.3160	0.66163
<b>Media Campaigns</b>	Elementary School	2	4.8000	0.00000
	Junior High School	5	3.1600	0.66933
	High School	61	3.0754	1.01401
	University	247	3.1166	0.85369
	Graduate School	69	3.4406	0.94033
	Total	384	3.1776	0.90615
<b>Scarcity</b>	Elementary School	2	4.8000	0.00000
	Junior High School	5	2.4000	1.64924
	High School	61	3.1246	0.98939
	University	247	3.0753	0.90903
	Graduate School	69	3.2464	0.91789
	Total	384	3.1141	0.94220

<b>Attitude Scale</b>		<b>Sum sq</b>	<b>df</b>	<b>Mean sq</b>	<b>F value</b>	<b>p value</b>
<b>Brand Impression</b>	Between Groups	10.706	4	2.677	6.463***	0.000
	Within Groups	156.956	379	0.414		
	Total	167.662	383			
<b>Media Campaigns</b>	Between Groups	11.594	4	2.898	3.627*	0.006
	Within Groups	302.893	379	0.799		
	Total	314.487	383			
<b>Scarcity</b>	Between Groups	9.820	4	2.455	2.818	0.025
	Within Groups	330.184	379	0.871		
	Total	340.004	383			

## APPENDIX H. ANOVA of Occupation on Different Attitudes Scale

**Table 8. ANOVA of Occupation on Different Attitudes Scale**

<b>Attitude Scale</b>	<b>Education</b>	<b>Number of samples</b>	<b>Mean</b>	<b>S.D.</b>
<b>Brand Impression</b>	Student	268	4.3445	0.63295
	Service industry	41	4.2439	0.68323
	Agriculture, Forestry, Fishing, and Animal husbandry	3	3.8889	0.19245
	Manufacturer	18	4.2963	0.87738
	Financial sector	6	4.2778	0.13608
	Government employee	21	4.2222	0.74784
	Freelance	9	4.2593	0.74120
	Housewife	7	3.6667	0.96225
	Others	11	4.6970	0.43345
	Total	384	4.3160	0.66163
<b>Media Campaigns</b>	Student	268	3.2254	0.83712
	Service industry	41	3.2098	0.98179
	Agriculture, Forestry, Fishing, and Animal husbandry	3	3.8667	1.61658
	Manufacturer	18	3.0222	1.14149
	Financial sector	6	2.4000	1.44222
	Government employee	21	2.8095	0.94758
	Freelance	9	3.0222	0.86281
	Housewife	7	3.1143	1.31076
	Others	11	3.2545	0.86760
	Total	384	3.1776	0.90615
<b>Scarcity</b>	Student	268	3.1403	0.87084
	Service industry	41	3.0439	1.12295
	Agriculture, Forestry, Fishing, and Animal husbandry	3	3.6667	1.96229
	Manufacturer	18	3.1222	1.04968
	Financial sector	6	3.0667	1.10755
	Government employee	21	2.7714	1.23820
	Freelance	9	2.9111	1.01050
	Housewife	7	3.0857	1.05108
	Others	11	3.4364	0.61200
	Total	384	3.1141	0.94220

<b>Attitude Scale</b>		<b>Sum sq</b>	<b>df</b>	<b>Mean sq</b>	<b>F value</b>	<b>p value</b>
<b>Brand Impression</b>	Between Groups	5.756	8	0.719	1.666	0.105
	Within Groups	161.906	375	0.432		
	Total	167.662	383			
<b>Media Campaigns</b>	Between Groups	9.279	8	1.162	1.428	0.183
	Within Groups	305.191	375	0.814		
	Total	314.487	383			
<b>Scarcity</b>	Between Groups	5.301	8	0.663	0.742	0.654
	Within Groups	334.703	375	0.893		
	Total	340.004	383			

## APPENDIX I. ANOVA of Monthly Income on Different Attitudes Scale

**Table 9. ANOVA of Monthly Income on Different Attitudes Scale**

<b>Attitude Scale</b>	<b>Monthly Income</b>	<b>Number of samples</b>	<b>Mean</b>	<b>S.D.</b>
<b>Brand Impression</b>	Under 10000	169	4.3314	0.64498
	10001 to 20000	85	4.3176	0.69180
	20001 to 30000	44	4.1288	0.72681
	30001 to 40000	33	4.2929	0.71082
	40001 to 50000	15	4.4000	0.70373
	50001 to 60000	14	4.4048	0.43713
	60001 to 70000	4	4.5000	0.63828
	70001 to 80000	5	4.8667	0.18257
	Over 80000	15	4.3333	0.56344
	Total	384	4.3160	0.66163
<b>Media Campaigns</b>	Under 10000	169	3.1988	0.87246
	10001 to 20000	85	3.1224	0.85026
	20001 to 30000	44	3.3409	0.77948
	30001 to 40000	33	2.9818	0.98788
	40001 to 50000	15	2.8800	1.04143
	50001 to 60000	14	2.9000	1.23226
	60001 to 70000	4	4.0000	0.74833
	70001 to 80000	5	3.1200	1.72395
	Over 80000	15	3.5600	0.84245
	Total	384	3.1776	0.90615
<b>Scarcity</b>	Under 10000	169	3.1503	0.93447
	10001 to 20000	85	3.0682	0.84603
	20001 to 30000	44	3.2227	0.81294
	30001 to 40000	33	2.9030	1.03576
	40001 to 50000	15	3.0800	1.12071
	50001 to 60000	14	3.1143	1.26422
	60001 to 70000	4	3.1000	1.08934
	70001 to 80000	5	2.5600	1.51621
	Over 80000	15	3.3333	1.02446
	Total	384	3.1141	0.94220

<b>Attitude Scale</b>		<b>Sum sq</b>	<b>df</b>	<b>Mean sq</b>	<b>F value</b>	<b>p value</b>
<b>Brand Impression</b>	Between Groups	3.472	8	0.434	0.991	0.442
	Within Groups	164.190	375	0.438		
	Total	167.662	383			
<b>Media Campaigns</b>	Between Groups	10.097	8	1.262	1.555	0.137
	Within Groups	304.391	375	0.812		
	Total	314.487	383			
<b>Scarcity</b>	Between Groups	4.664	8	0.583	0.652	0.734
	Within Groups	335.340	375	0.894		
	Total	340.004	383			

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