

A Study to Explore How Disposing Old-Goods Factors Influence Consumer's Behavior

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Abstract—It was a good choice for disposing the old-goods in a global economic growth slowdown years. Therefore, this study picked the pre-positive factors that affect disposal of old-goods out and then discussed the relationship between the factors and mental price premium. It will be provided 6 propositions in the study. Besides, this study will adopt SPSS18.0 and AMOS 18.0 to analyze the data. This study hopes to enrich the implications that sellers should make a disposition classification based on these factors in the future.

Index Terms—perceived depreciation, product scarcity, mental price premium, disposal

I. INTRODUCTION

In the situation of salary reduction but still want to buy something as the popularity of, with the rise of global Internet usage, it created a sharp increase of on-line shoppers in worldwide. Today, the electronic commerce (e-commerce) has become an important tool for enterprising to improve their reputation and provides their new product information also. In general, e-commerce combines the business activities of buying, selling, product information, and services together through Web. By this way, it can satisfy the demands of corporations, commodities, and consumers, and then achieve the needs of costs reduction [1]. The e-commerce through on-line transactions, it not only can reduce corporations' operating costs and promotes corporations' name brand, but the consumers can get the benefits from this way also, such as: resale, rental, exchange and etc. Consumers can get lots of information by using Internet to help them to make a better decision.

It is worth to notice, although there are many literatures in purchased products, the discussions in disposition behavior after purchasing is much less. All of the disposition intentions in old-goods are gathered from various factors, it is a series of interactive behaviors. Most of the consumers seem to focus on the process of products purchased, but less on the disposal way of old-goods. When

sellers are making a decision of old-goods disposition, that is a series of complex process, it included the result of people's psychological factors, products' internal factors, external factors of environment changed, and etc. Based on this view, sellers begin to consider, "you will choose what types of disposition in what situations (e.g., resale intention, rental intention, exchange intention, and giving away intention)". So, this study picked the pre-positive factors that affect disposal of old-goods out and then discussed the relationship between the factors and mental price premium.

II. LITERATURE REVIEW

A. Disposition Research

As described by Jacoby *et al.* [2], consumer behavior can be defined as "acquisition, consumption, and disposition of goods, services, time and ideas by decision-making units". As described elsewhere, different disciplines typically focus on different portions of this behavioral process. Nevertheless, for a long time, the research of consumer behavior pays more attention to the decision-making process of products purchased and the consumption style, it is relatively less for the research of disposition behavior after purchasing [3]-[6]. Therefore, Jacoby, Berning, and Dietvorst had ever developed disposition decision taxonomy in 1977 [2], in order to discuss the disposition decision of old-goods. In this study, Jacoby *et al.* set up a conceptual model for consumer's disposition behavior, it included three types of disposal: (1) keep the product, (2) permanently dispose of it, (3) temporarily dispose of it.

Accordingly, Burke, Conn, and Lutz [7] modified that taxonomy and related disposal behavior to demographic and psychographic profiles of different disposer types. These early studies tended to deal with specified products, such as small electrical appliances. Other models that describe the consumer disposition decision process tend to focus on a problem solving orientation [8]. And Hanson [9] looked at the process using three significant elements-situation, object, and person variables.

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Furthermore, Harrell and McConocha [8] acceded to variables of charitable donations, tax deductions, philanthropic behavior and gift giving.

This study investigated the rationales consumers use when selecting prevalent disposition options (keep, throw away, sell, donate with tax deduction, donate without tax deduction, and pass along). Besides, a field study was conducted with consumers to learn more about how their characteristics relate to the selection of several important disposition options, and provided more disposition options for consumers [8].

Unlike previous literatures, we suggest, when we disposal our old-goods, we should not only concentrate our attention on personal psychological factors, but also should focus on the possibility of finances which products brought.

- Factors that affect disposal of decision-making

As stated above, when consumers dispose of the old-goods, they will consider a lot of factors. This study attempts to integrate the concept that factors which affects post-purchase disposition from other scholars:

- The internal factors of product

It included the depreciation, scarcity, volume size, brand characteristics, quality of commodity (major producers, e.g., Japan or China), a speed of drive out the old and bring in the new, and etc.

- The external factors of product (market factors)

It included, the transaction cost, market reference price, original purchase price, market size, and price promotion of commodity, and etc.

- The situational factors of product used

It is including transaction frequency, sustainable needs, temporary, convenience, experience that used, and warranty period of commodity, and etc.

- The psychological factors of person

Consumer's mental price premium, perceived non-usefulness, investment returns, unused amounts for commodity, and etc.

As mentioned above, most of studies that discussed the reasons of affects purchase decision-making from a buyer standpoint, but there is relatively few from a seller standpoint. However, not only a buyer, but a seller is playing an important role in transaction process. Because of seller is making a decision, he considers other factors also, such as: scarcity, transaction cost, mental price premium, and etc. All of these elements will affect the final intention of disposition decision-making for seller. Consequently, this study plays a role of seller to explore consumer's post-purchase disposition intentions, as well as dig out the reasons of disposal old-goods and the correlations between some certain variables.

B. Perceived Depreciation

Depreciation means a curtrate value by using. The Economics had ever mentioned, the goods a lot of wear and tear when we used in a long time, it will result in a phenomenon of value decreased, and this phenomenon we call "depreciation". Besides, it also includes other factors, for instance: The cognition on seller's perception, such as the psychological factors of seller will lead him to feel this

goods is falling in price, or it should be eliminated for its functions, or the goods which we bought was too bad to be used, or even the lost on spiritual that spent too much time in repairing a goods, and etc. All of these factors will lead to depreciation. In other word, "when this product had been using a certain time by person and lost its original value, it led a seller to think this product was not newly anymore, the depreciation would occur". Moreover, depreciation is mainly made from these three elements as follow. It included, physical deterioration, functional obsolescence, external obsolescence [10].

According to above we said, this study inferred five dimensions of perceived depreciation and organized it in Table I:

TABLE I. FIVE DIMENSIONS OF PERCEIVED DEPRECIATION

Dimensions	Definition
Abrasion depreciation	The wear degrees of product, that is physical wear, including external and internal deterioration.
Time depreciation	The length of time will affect product's value, even if there is no physical wear for product, but over time, it still has a depreciation generated, ex: expiration date is nearly.
Mental depreciation	It derived from consumers' subjective consciousness, even though this product has been used with low frequency, but it has become an old-goods for consumers.
Performance depreciation	It means a elimination of function. For the same product, a new product is better than an old one, and its accessories also.
Market depreciation	The external factors of product. For example: this product is over-supply in market.

C. Product Scarcity

Mentioned to scarcity, the first reaction we thought was "limited edition". Scarcity tactics can be classified into two types: quantity limit and time limit.

However, does scarcity just limit on quantity and time only?

Saloner and Shepard [11] had ever suggested, a product which has an effect of network will increase itself value with the numbers who hold it, but not suit the product which has scarcity effect, the benefits of rarity products will decrease with the holder increased. Brock and Yoder [12] pointed out "Commodity Theory" and noted, "Any commodity will be valued to the extent that it is unavailable", in other words, it claimed if the commodity has a feature of unavailability, it will increase its own value. According to Barney's Resource-Based View, Barney [13] argued that sustained competitive advantage derives from the resources and capabilities a firm controls that are valuable, rare, imperfectly imitable, and not substitutable.

Hence, under the viewpoint of RBV, it argued, if a resource with produced valuable is more rarity, its competitive advantage is stronger. In other words, if you can utilize the scarcity well then create a great value for yourself [14].

D. Transaction Reference Price

While consumer is making a purchasing decision, the buying intention usually determines on a perceived acquisition value, that is consumer's alternatives between perceived benefits and perceived sacrifices. When you feel this product's perceived benefits is large than perceived sacrifices, then the probabilities of you chose this product will become higher [15]-[16]. Reference price is assumed to be "a benchmark when we do a price comparison". The price which below the reference price are called low-price (it's relatively inexpensively); and the others which above the reference price are called high-price (it's relatively expensive). For a general market, reference price refers to a related information which people could recall from their memories when they purchased a commodity [17]. In a nutshell, reference price was defined as: "When people purchase a product, a related price information of product that he/she is acceptable" according to resources of price information, it can divide into internal reference price and external reference price. Furthermore, Chang and Chou argued, it is an adaptation of price after consumer assessing that appeared in their mind, it's also called "adaptation level price" [18]-[19].

Simply, that is, "Reference price is a price which sellers made based on the internal or external information when he/she wants to sell old-goods; and this type of related price information of product that he/she recalled, will affect his/her price decision".

- The effect of perceived depreciation on transaction reference price

Stroker and Antonides [20] found that when consumer faces an uncertainty of purchasing, the price that they were willing to pay is obviously impacted by product's lifespan or product's fixed-price. Once the product had been used by people, the product would come into depreciation. So, if sellers wanna sell an old-goods, they will consider five dimensions of perceived depreciation, these dimensions have a great impact for sellers and buyers at the same time, and transaction reference price further. Besides, there is an economic life for assets, it means "Assets' operation service life which could maintain effectiveness". For this reason, if a product's depreciation is high, there is no valuable to sell it. As well as, it will increase its depreciation again after sells it, such as a used car, its price is getting lower only. Thus, following the above arguments, we hypothesize that:

- P1: Perceived depreciation provides a negative influence on transaction reference price.
- The effect of product scarcity on transaction reference price

There was a scholar combined the scarcity with Need-For-Uniqueness Theory. Based on a standpoint of Need-For-Uniqueness Theory, people have a uniqueness demand [21]-[22]. There is a negative reflection for all of person gets the same information, yet a way to enhance people owns their uniqueness, is holding a scarcity commodity [23]. Thus, we can find that there is a correlation to a certain extent between the Need-For-Uniqueness Theory and the scarcity of Commodity Theory.

Therefore, a thing that is more unique, is got more attention by people, and desires to get it. In this situation, the value of existence for this goods is higher than the others, and its reference price will enhance correspondingly; on the contrary, if sellers want to sell a goods which has no scarcity, the reference price is getting low for this goods. Thus, following the above arguments, we hypothesize that:

- P2: Product scarcity provides a positive influence on transaction reference price.

E. Perceived Transaction Cost

A term of transaction cost came up from The Nature of The Firm by Coase in 1937 and claimed, in a transaction process, the transaction cost will increase because of a uncertainty of environment and bounded rationality (the operation system is imperfect) [24]. In 1975, Williamson integrated Coase's concepts with his opinions, and proposed a complete theory of transaction cost [25]-[26]. Transaction cost can be regard as a time-cost, searching-cost and spiritual-cost they paid for completing the transaction [27].

However, for disposition of old-goods, sellers attempt to get returns by transacting. But old-goods are not a new product after all, it might has a same product exists in the market and renting or reselling. In this moment, a reference price of product not only affect buyers' buy intention and sellers' sell intention, but also affect how much monetary returns sellers received and the deal is success or not. Therefore, sellers have to price a reference price which is accepted by everyone and then bargain with buyers, so that accomplish a transaction.

In a series of processes, sellers might face various transaction costs in the market, such as: searching cost of ex-ante, bargaining cost of ex-middle and monitoring cost of ex-post.

Searching cost of ex-ante: In order to set a price which is accepted by buyers (in the situation of protect their maximum of benefits), sellers set a reference price by searching the related-information about the goods on market (because it can prevent the reference is too high or too low). In particularly, if this product's volume is rare and buyers do not realize its functions, sellers should put a lot of searching costs in the progress to illustrate its characteristics, so that support a rationality for the reference price.

Bargaining cost of ex-middle: In a transaction, both of buyers and sellers don not know each other, there is a low trust between them, so sellers have to spend a lot of time to communication with buyers. Furthermore, if this goods has been used by someone, buyers have a query about its efficiency and quality, for this reason, sellers should try their hard to negotiate with buyers and convince them of its value. But, there is a failure outcome for two parties stand in the information asymmetry or do not reach an agreement on price.

Monitoring cost of ex-post: After two parties have signed a contract (sellers do not get a payment and buyers do not get a commodity), in order to prevent each other to break a contract (ex: buyer turned to doing a transaction with other seller whose price is much cheaper) and lead to large of

bargaining costs, sellers will spend a lot of monitoring costs to observe this contract's progress and quality while executing it.

In short, transaction cost will be different with commodity's scarcity or uncertainty of efficiency. Therefore, the transaction cost that we mentioned above will be incorporated in a consideration by sellers when they price a reference price.

- The effect of perceived depreciation and perceived transaction cost

In brief, there is a high degree of depreciation for product, it represents consumers are familiar with this product already and are accepted by everyone, hence, sellers could spend lower costs (such as searching cost) doing a transaction. Both of buyers and sellers are deeply affected by five dimensions of perceived depreciation (ex: the risks of time, mental, performance), so if sellers think this product has high depreciation, it influences the transaction costs in turn. In a nutshell, when sellers want to sell this goods, he/she must be consider that buyers have copious knowledge about this goods, so sellers do not waste their time on searching, bargaining and monitoring. Thus, following the above arguments, we hypothesize that:

- P3: Perceived depreciation provides a negative influence on transaction cost.
- The effect of product scarcity and perceived transaction cost

Moreover, we thought there is a positive relationship between product scarcity and transaction cost. As Brock noted in Commodity Theory, "Any commodity will be valued to the extent that it is unavailable"[12]. On the whole, product scarcity represents the volume is few or there is a limitation on acquirement (limited editions). However, while sellers sell a goods which is scarcity and uniqueness, they are afraid that buyers would negotiate the price with sellers or break the contract, all of these would the bargaining costs and monitoring costs to increase. In other words, if sellers perceive this commodity is much scarcity, it means the non-monetary cost is getting higher for this commodity. Thus, following the above arguments, we hypothesize that:

- P4: Product scarcity provides a positive influence on transaction cost.

F. Mental Price Premium

The economics literature defines price premiums as price that above-average profits [28]-[29]. Ba and Pavlou [30] had ever noted a price premium as the monetary amount above the average price received by multiple sellers for a certain matching product. It is crucial to clarify that price premiums do not imply that action sellers receive higher price than from other selling channels. Besides, Rao and Bergen [31] explained, a price premium can be thought of as the excess price paid, over and above the "fair" price that is justified by the "true" value of the product. This excess price has typically been view as the amount paid over and above all economic costs of manufacture.

In fact, Kauffman and Wood [32] showed that price in Internet actions are significantly lower than standard retail

value. A major reason for the existence of price premiums is the need to compensate the seller for reducing transaction risks [33]. Therefore, in an efficient market with dynamic pricing, we argue that buyers are willing to compensate reputable sellers with price premiums to assure safe transactions.

As above mentioned, no matter whether seller/buyer experiences or searches this goods or not, if only they still thought of its quality or functions were larger than the original price prior to purchase, both of them have high mental price premiums for goods, in turn, there will be a rise in success rate. Thus, we develop the mental price premium in our study, and means: "In certain conditions and influences of external environmental changes, it would make commodity's value higher than the original value when we resold. If there is higher valuable, the transaction price is getting higher also".

- The effect of reference price and mental price premium

In a transaction process, if seller/buyer perceives there is a great activating unused amounts to use, then both of them will think of this goods is valuable for selling/buying, in turn enhances the transaction reference price of this goods. Shafir and Thaler [34] demonstrated, consumer would open a mental accounting in their mind when they are purchasing, and consider that the money which they paid for goods is seen as a "loss", the benefits which they continually to use for goods is regarded as a "gain". When they think "loss" is larger than "gain", they are unwilling to buy this goods because it will cause the utilization of goods to loss; on the contract, while seller perceives the transaction reference price (deal with buyer) is larger than he/she paid for goods, then seller will consider that he/she could get a monetary return because of this goods, therefore, it not only enhance the perceived value, but enhance the transaction intention for goods also. Thus, following the above arguments, we hypothesize that:

- P5: Transaction reference price provides a positive influence on mental price premium.
- The effect of transaction cost and mental price premium

Douma and Schreuder [35] mentioned the concept of researching cost and means: Both of buyers and sellers should bear the transaction costs in a transaction process. Hence, for consumers, if they want to buy a specific commodity, they are more willing to spend their time searching the information about the goods or negotiating with sellers, such as: price comparison, store reputation, product quality, and etc. In a process, ex-ante costs and ex-post costs would accumulate with time. People wouldn't buy goods when they found the value of goods is lower than an accumulation of costs and an uncertainty of status. Similarly, because sellers perceive the occurrence of buyers' mindset, sellers will consider that whether it bring large benefits for him/her or not before they disposal it. If sellers perceived that there were a lot of negotiations at the first time as well as felt troublesome, and then they would consider that goods was no valuable to them, in turn caused this transaction failure.

- P6: Transaction cost provides a negative influence on mental price premium.

III. METHODOLOGY

The conceptual model of this study as shown in Fig. 1:

In the study, we will totally develop 22 question items according to our 5 variables, and adopt an international luxury bag to be an object. The ages of the population of the study is all above 20 years old, and live in Taiwan. We will send 500 questionnaires out in total; the respondents will answer questions regarding their experiences using seven-point scales ranging from “strongly disagree” to “strongly agree”. Besides, the study will adopt SPSS18.0 to acquire the reliabilities and validities of questionnaire; moreover, the measurements and structural models were tested by using AMOS 7.0 program.

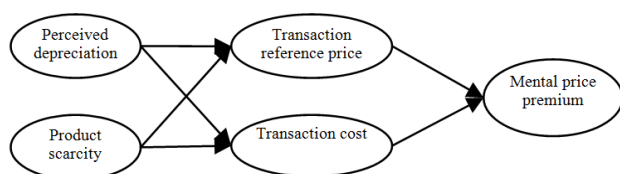


Figure 1. Conceptual model

IV. CONCLUSIONS

It not similarly with previous studies, this study picked the pre-positive factors that affect disposal of old-goods out and then discussed the relationship between the factors and mental price premium, and adopted TCE and RBV to be based. This study hopes to provide some implications to explore: 1. Do transaction reference price and transaction cost are influenced by perceived depreciation and product scarcity, and in turn influence on the mental price premium? 2. This study hopes to clarify that does consumer is influenced by these pre-positive factors before they want to dispose of their old-goods. 3. If the 6 propositions that we mentioned above was confirmed, does it influence consumer's decisions that what disposal intentions (resale, rental, bartering, giving away or throw it out) they would choose? We hope not only to enrich consumer behavior but also enhance the concept of eco-life, but also could keep the faith of 3R in the study.

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