**RESEARCH PROPOSAL**

### MASTER THESIS MARKETING MANAGEMENT/MARKETING ANALYTICS FALL 2022

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### 1.Business Problem: Background / Probleemachtergrond

Nowadays the circular economy concept has taken place on the agenda of some countries specially in Europe, in order to face some environmental, social and economic set of challenges. According to Lacy et al (2020), the circular economy is a system which has a set of rules and strategies aiming to disunite the economic growth from the consumption of scare resources.

One of the new business models produced by the circular economy is the one known as Product-as-a-service (PaaS). In this model the customers are not the owners of the product, rater they rent or lease it. In accordance with Morewedge et al., (2021) it basically represents a transformation from legal ownership to legal access towards the products promoted by the circular economy. The introduction of new business models, such as Product-as-a-service, represents several challenges for companies. One of them is the shift of the psychological ownership that consumers hold towards daily used products.

Rethinking ownership is necessary because there are global challenges that force us to change our mindset regarding manufacturing products and the way that these are consumed. In accordance with Orasmaa et al. (2020) when consumption is based on the use of services rather than the ownership of products, the financial risk borne by the customer is reduced, the usage of the product is more flexible and it facilitates the efficient circulation of materials.

This shift depicts an important dare, for companies, because, according to Li & Atkinson (2020), psychological ownership fulfills basic psychological needs and therefore increments customer well-being. Additionally, in accordance with Morewedge et al., (2021), psychological ownership is linked positively with important variables, for the organization, such as customer satisfaction and loyalty, market demand and willingness to pay.

Due to the importance of psychological ownership and the unavoidable course towards the circular economy and its new business models, companies will have to create alternatives in order to maintain the emotional connection of the customers towards the products, in a context where they are not going to be able to get legal ownership of those. In few words, organizations have to visualize trade-offs in order to protect psychological ownership developed by customers through their interaction with products, in a new context where they cannot own them.

On this research the focus will be placed on the bicycle manufacturer industry and a bike will be used as a main and unique product through the experiment given that: first, transportation is an industry highly influenced by the circular economy; and second this product represents one of the main means of transport. In accordance with Bhattacharya (2010) this mean of transport constitutes about 30% of all urban trips in the Netherlands.

### 2.Problem Statement and Research Questions/ Probleemstelling en onderzoeksvragen

2.1 Problem Statement

How the level of customization and the type of features (hedonic vs utilitarian) to customize products could influence the willingness to pay and to what extent are these relationships mediated by the psychological ownership?

2.2 Research questions:

* To what extent is the willingness to pay affected by the level of customization on a product?
* What is the impact of the type of features used to customized products on the willingness to pay?
* To what extent does the psychological ownership have a mediating role in the relationship between the level of customization and willingness to pay?
* To what extent does the psychological ownership have a mediating role in the relationship between the type of features used to customize products and willingness to pay?

### 3. Theoretical background/ Theoretisch kader

3.1 Level of customization

According to Lee & Kim (2020) customization is the process where products are designed from common materials, leading to a feeling of uniqueness for consumers or users. In recent year customization has started to be seen as a relevant marketing strategy driven by increase of supply of technology focused on customization, the declining of production costs and the internet, which enables the communication with the customers (Franke et al., 2009).

A shift from legal ownership to legal access, promoted by the circular economy, offers challenges, for companies, in order to protect and maintain the psychological ownership. One of them is through the offering of platforms which could incorporate product customization (Morewedge et al., 2021). Customization may create a greater level of psychological ownership. For this reason, the level of customization on a product was included in the model and thus, it is expected to have a significant relationship with both, psychological ownership and willingness to pay.

It is important to mention that level of customization has been included, as an independent variable, in this paper following the contributions made by Schreier (2006) and Franke et al. (2009) Both were aimed to analyze the effect of customization on willingness to pay, but while the first tested it through the comparison of self-design against standard products; the second made it through the assessment of tailored products belonging to several categories. As it has been mentioned before, willingness to pay is a variable positively related with the psychological ownership (Morewedge et al., 2021), therefore it is expected that customization could influence psychological ownership as well.

**H1:** Highly customizable products will produce a higher willingness to pay than poor customizable products.

**H2:** Highly customizable products will develop a stronger psychological ownership, on customers, than poor customizable products.

### 3.2 Type of features used to customize products

### Products could be seen as bundles of features with their attractiveness determined as a compensatory function of feature levels (Lancaster, 1966). At a fundamental level, the appeal of a product can be viewed as a function of two sets of factors: product features and marketing efforts (Du et al., 2015).

### In accordance with the purposes of this research, type of features used to customize products is going to be classified in two conditions: hedonic and utilitarian. This classification was done based in two researches. The first one was carried out by Dhar & Wertenbroch (2000) where was demonstrated a fundamental asymmetry in how consumers trade off both dimension, hedonic and utilitarian, in acquisition and forfeiture choices; the second one, done by Norton et al. (2012) showed that in fact, respondents could easily differentiate between both dimensions through the well know Ikea effect.

### H3: Products customized through hedonic features will produce a higher willingness to pay than products customized through utilitarian features.

### H4: Products customized through hedonic features will develop a stronger psychological ownership than products customized through utilitarian features.

3.3 Psychological Ownership

Ownership could be divided in two broad terms, the first is psychological ownership and the second one is legal ownership. According to Li & Atkinson (2020) psychological ownership could be understood as the individual sense or feeling of possession a consumer could hold for a target, it is based on subjective feelings. Legal ownership, on the other hand, is the possession of a product, endorsed by a legal document, usually a deed, a bill or a receipt.

Based on the literature review done in order to carry out this research, the effect of psychological ownership on willingness to pay has been already documented. For instance, Atasoy & Morewedge (2017), determined the influence of psychological ownership, as a mediator, on product valuation. But what has not been discussed yet, is the mediating role of this variable in a customization context.

Embracing previous researches, it is going to be followed the contribution made be Li & Atkinson (2020) in order to measure psychological ownership. On their work it was used a five-item scale previously developed by Pierce & Van Dyne (2004). Suiting this model to the purposes of this research, the five-item scale would include: I sense this bike its mine; I feel a very high degree of presonal ownership towards this bike; I feel personally connected to this bike; it is hard for me to think about this bike as mine; this bike does not make me feel that it is mine.

**H5:** Highly customizable products will produce a higher willingness to pay than poor customizable products and the relationship will be mediated by the psychological ownership

**H6:** Products customized through hedonic features will produce a higher willingness to pay than products customized through utilitarian features and the relationship will be mediated by the psychological ownership

3.4 Willingness to pay

* 1. ***Conceptual Model/schematical overview***

Level of customization

* HCP
* PCP

Type of features

* Hedonic
* Utilitarian

Psychological ownership

Willingness to pay

IV

Covariates:

* Age
* Gender

Mediator

DV

### 4. Research Design/Onderzoeksmethode

|  |  |  |
| --- | --- | --- |
| Variable | Name | Measurement |
| Independent | Level of customization | It is going to be treated as a categorical variable. In total there are going to be just 2 conditions. Each condition is going to be stated as follows:   * HCP = High customizable product (between 5 to 10 features to customize) * PCP = Poor customizable product (between 1 to 3 features to customize |
| Independent | Type of features | It is going to be treated as a categorical variable. In total there are going to be just 2 conditions. Each participant is going to be assigned randomly to one of the following conditions:   * Hedonic features * Utilitarian features |
| Mediator | Psychological ownership | Measurement: 5 items scale including: I sense this bike its mine; I feel a very high degree of personal ownership towards this bike; I feel personally connected to this bike; it is hard for me to think about this bike as mine; this bike does not make me feel that it is mine. Respondents will be asked to indicate their opinion on a seven-point scale (1= strongly disagree; 7 strongly agree) |
| Dependent | Willingness to pay | Respondents will be asked to give their willingness to pay for the customized product. |
| Covariate | Demographic data | The information required will be:  Age and gender. |

The study will be carried out through a 2 (HCP, PCP) x 2 (hedonic, utilitarian) between subject design online experiment in order to test the hypotheses previously developed. For the experiment, the respondents will be asked to fill out an online questionnaire and randomly will be assigned to one of the four experimental conditions.

Participants will be asked to customize that product based on the independent variables’ conditions assigned. Then, they will be required to fill out a five-item scale, previously described, in order to measure their psychological ownership toward the customized product. Finally, they will be able to give their willingness to pay.

An ANOVA will be carried out, complemented with a mediation analysis that is comprised of three sets of regressions: X → Y, X → M, and X + M → Y (Kim, 2016). The whole analysis will be supported through the bootstrapping technique in order to get the expected results.

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