

RESEARCH PROPOSAL

MASTER THESIS MARKETING MANAGEMENT/MARKETING ANALYTICS

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Name:	Riano Martinez Francisco
SNR:	2070510
Company:	N/A

1. Business Problem: Background / Probleemachtergrond

Nowadays the circular economy concept has taken place on the agenda of some countries 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 aiming to disunite the economic growth from the consumption of scarce 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, rather they rent or lease it.

This new context, in accordance with Morewedge et al (2021), will produce important changes in consumption through the replacement of legal ownership of private goods with legal access to goods and services owned and used by others. Psychological ownership, among other items, were included in the “bundle of rights” provided by the legal ownership (Morewedge 2020).

Psychological ownership can be understood as a form of emotional attachment between consumers and the goods and services they use (Shu & Peck, 2011). Within this new context, psychological ownership could be threatened by the changes in consumption given that legal ownership, as it was described previously, has been the main source of it in the traditional model (Morewedge et al., 2021). But at the same time, it represents a challenge for companies in order to find new alternatives, that allow to protect or even boost this emotional link between users and products.

One of the alternatives proposed by Morewedge et al (2021) to preserve psychological ownership is through customization. It has a great potential to retain psychological ownership, this statement could be confirmed by the research made by Arora et al (2021) which found that 71% of consumers expect companies to deliver personalized experiences and 76%, of them, get frustrated when this does not happen. Additionally, in accordance with Teasdale (2022) 33% of consumers interested in customization feel that standard products do not meet their expectations. There are important opportunities for companies to enhance customization experiences, offered to their clients, as a replacement of legal ownership.

Despite of the importance of the psychological ownership and the potential of customization to protect it, companies nowadays are not well enough oriented, due to the lack of literature about it, in the search of the level and type of features that are the most appealing for

customers at the time of customizing the products that will be used by them. These findings could be fundamental in order to strength psychological ownership and maximize the perceived market value of the products customized by users even if these are not owned by them.

In addition, customization studies have been able to reveal that in fact, customers designing their own products might be willing to pay premium prices (Schreier, 2006). But the key aspect, that has not been addressed enough so far, is in discovering what variables explain the effect of customization on willingness to pay.

2. Problem Statement and Research Questions/ Probleemstelling en onderzoeksvragen

2.1 Problem Statement

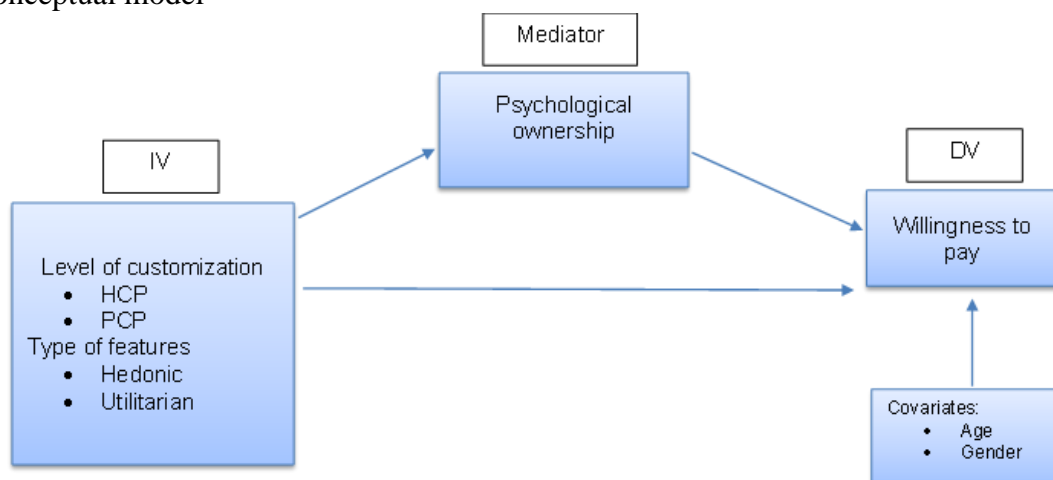
How the level of customization and the type of features (hedonic vs utilitarian) used to customize products could influence the willingness to pay and to what extent are these relationships mediated by the psychological ownership?

2.2 Research questions:

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



The conceptual model depicted above, has been developed with the aim to offer a customization framework in order to determine, through an emotional and economical approach, which are the most appealing type of features (utilitarian vs hedonic) for users when product customization is an alternative available for them. Additionally, it is intended to show the effect of level of customization on both, psychological ownership and willingness to pay. Finally, it is desired to determine the degree to which this emotional link (psychological ownership) explains the relationship between customization and the economic value ascribed to a physical customized good (willingness to pay).

3.2 Hypotheses / Conceptual background

3.2.1 Main effect

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 enhances the communication with the customers (Franke et al., 2009).

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, in the same way as willingness to pay, psychological ownership as well.

It is important to recall that the effect of customization on willingness to pay has been documented already in the literature however, what makes this research different, is that those researches focused their attention in the comparison between standard products and customized products. This research proposes the contrast between products with a high level of customization and products with a low degree of it.

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.

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. Hedonic features are those linked with a sensory experience of aesthetic or sensual pleasure and fun; while utilitarian attributes are those orientated to a specific goal and with the accomplishment of a practical task (Dhar & Wertenbroch 2000).

The inclusion of this variable and the development of the hypotheses in this regard, have been done based in the research made by Dhar & Wertenbroch (2000). In this study they were able to demonstrate that participants tend to assign higher value to a hedonic product than to a utilitarian one, through an experiment which asked participants to imagine that they were to sell their car, therefore the minimum selling price should be stated.

Hedonic products trigger more psychological ownership and more positive affect than utilitarian products (Shu & Peck, 2011). Additionally, as it was demonstrated by Dhar & Wertenbroch (2000), hedonic products also generate more loss aversion. Based on these two studies, the following hypotheses have been stated.

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.

3.2.1 Mediating role

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 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 mediating 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, between product format (digital vs physical) and product valuation (WTP). Similarly, Bonaventure & Chebat (2015) established in their model the mediating role of psychological ownership in the relationship of touch with willingness to pay for extended warranties.

The present research is focused on determining the degree on what psychological ownership explains the effect of customization on willingness to pay for products modified by the potential users. This challenge has not been addressed yet by the current literature so therefore, this is one of the key contributions expected to be given by this present study.

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

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: <ul style="list-style-type: none"> HCP = High customizable product (between 6 to 10 features to customize) PCP = Poor customizable product (between 1 to 5 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

		<p>the following conditions:</p> <ul style="list-style-type: none"> • Hedonic features • Utilitarian features
Mediator	Psychological ownership	Measurement: 5 items scale including: I sense this car its mine; I feel a very high degree of personal ownership towards this car; I feel personally connected to this car; it is hard for me to think about this car as mine; this car 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	<p>The information required will be:</p> <p>Age and gender.</p>

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 shown a standard car. The product was chosen based on the study made by Dhar & Wertenbroch (2000). then, they will be asked to customize that product based on the independent variables' conditions assigned. Later, they will be required to fill out a five-item scale, developed by Pierce & Van Dyne (2004), in order to measure their psychological ownership toward the customized product. Finally, they will be able to give their willingness to pay for the customized object.

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

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