EMBS5 Master Thesis Proposal

Title

The use of Mass Customization toolkits and the proud of authorship: When the self-design of a product leads to social sharing.

Abstract

In the recent years the phenomenon of "Do it yourself" as well as the concept of Mass Customization (MC) have received increased attention from practitioners and scholars alike. More specifically the use of Mass Customization toolkits, allowing customers to self-design products that highly fit their needs, has been largely explored. Over a decade of researches have clearly pointed out that value for the customer lies not only in the product per se but in the designing process as well.

Psychological perceptions of enjoyment, achievement, or difficulty can indeed impact the value customers attribute to the final product.

The researches on MC toolkits have so far directed their attention mainly in analyzing the willingness to pay (WTP) of customer as a result of their interaction with the MC toolkits.

The aim of the present research is to further explore this model adding the social dimension of experience sharing. With the increasing relevance of online sharing communication media, the interaction between individual product designing and social sharing activities becomes a high relevant issue and can lead companies to largely adopt Mass Customization toolkits to exploit a world-of-mouth promotion triggered by the customers themselves.

The exploration of which factors in the product designing process can hamper or enhance the social phenomenon of sharing constitutes therefore the main core of the study.

Introduction/background

The research question

The present research is situated in the field of Mass Customization (MC) toolkits. Focusing on the product design process the aim of this study is to investigate to which extent the experience of positive emotions enhances the sharing among peers of the designing activity or of the resulting product.

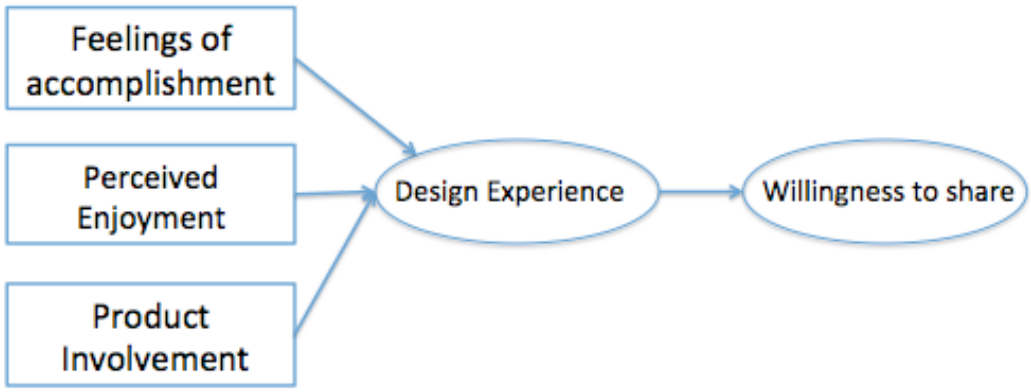
Relevance of the study

Considering Mass Customization as a phenomenon that involves a paradigmatic shift, the number of users willing to adopt it is a crucial factor for its future failure or success. It has already been shown that when alternative procedures

are contemporarily available, their survival and further development is related to the speed at which they can achieve a "critical mass" size and thus acquiring the status of dominant model.
With the explosion of the adoption of social medias, the individual sharing of personal activities has become a powerful marketing tool that can generate a strong promotional effect towards the highlighted product or service.
The understanding of which factors in the product designing process trigger the willingness of social sharing can therefore play an essential role for the successful implementation of Mass Customization strategies.

Design of the experiment: Assumptions Variables and hypothesis

The dependent variable of the study is the willingness and extent of experience sharing. The main hypothesis researched presumes the existence of a direct relationship between the positive experience of designing and the dependent variable.
Furthermore, it is assumed that feelings of enjoyment and accomplishment, as well as the degree of customer's product involvement have important effects on the overall experience of product designing.



The effects of perceived enjoyment, feeling of accomplishment and product involvement on the design experience have already been positively tested.
The novelty of the study is in the dependent variable that shifts from the most used willingness to pay to the extent and modalities of experience sharing.

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Review of Literature

In the last decades practitioners and scholars increased their attention toward the phenomenon of Mass customization (MC), defined as the ability to provide individual-tailored products without losing the cost benefits of the mass production systems (Jiao, Ma and Tseng 2003).
The rise of Mass Customization has its origin in the increase of competition in the global market that has led companies to provide products with the highest fit for every customer, pursuing the ideal of serving "markets of one" (von Hippel and Katz, 2002).
In order to adopt a mass customization strategy companies must adapt their organization in several areas like manufacturing, distribution and marketing and integrate all the relevant information across these departments.
The essential conceptual shift brought by mass customization strategies is the integration of customers in the generation of new products (Piller, Moeslein and Stokto, 2004).
Companies abandon the attempt of measuring the customer preferences to introduce successful new product and instead they offer instruments for customers to express their individual needs themselves by selecting and combining product attributes in a unique original solution (Franke and von Hippel, 2003).
The use of Mass Customization toolkits enables the self-design of products by customers and their extensive use has led to extraordinary successful business model, as for the case of Dell computers, as well as to spectacular failures in the case of Levi's One project. (Franke and Shreier, 2010).
The relevance of the empirical result stemming from the implementation of Mass Customization enhanced the attention to MC toolkits from scholars.
A review of the existing literature reveals several approaches to the Mass Customization phenomenon.

Lines of researches in the literature

The literature on Mass Customization can be firstly divided in conceptual papers and research works. Many scholars have linked different sources of information about Mass Customization to offer a global overview or a personal perspective (Piller, Moeslein and Stokto, 2004; Piller and Müller, 2004; Berger and Piller, 2003; von Hippel and Katz, 2002; Lampel and Mintzberg, 1996; Gilmore and Pine, 1997; Zipkin, 2001; Thompke and von Hippel, 2002).
More recently some empirical experiments implementing the use of toolkits have been conducted. In this branch of studies, the main focus has been the value generated by the use of Mass Customization toolkits, measured in terms of

willingness to pay (WTP), sometimes integrated with measures of purchase likelihood[1] and attitude towards the product (Franke, Keinz and Steger, 2009; Franke, Schreier, and Kaiser, 2009; Franke and Schreier, 2010). The empirical evidences derived from these studies depict mass customization as a high promising marketing strategy generating benefits that customers are willing to reward with high premium prices (Franke, Keinz and Steger, 2009). Another important aspect emerged from the research is the conditions under which the customer can obtain the maximum utility from the use of MC toolkits. It has in fact pointed out that the type of interface given to customers for performing the product self-design task has a strong influence on the value they attribute to the final outcome. Factors as perceived process complexity, cognitive effort as well as the type of option framing can revert the benefits generally associated with Mass Customization (Dellaert and Stremersch, 2005; Valenzuela, 2009; Park, Jun and McInnis, 2000).

Furthermore it has been shown how psychological experiences involved in the process of designing a product are used from the customers as a crucial point of reference to judge the product itself (Franke and Schreier, 2010). This result that can be surprising at first glance has important theoretic and practical implications. Recent researches have shifted the focus from the cognitive to the emotional dimension of the product self-designing by considering factors as the perceived enjoyment and the proud of authorship (Franke, Schreier, and Kaiser, 2009). Recent researches on the subjective feelings experienced during the designing process show that the benefit perceived by the customers as positive emotions are transferred to product as the final outcome of the process (Valenzuela 2009; Franke, Schreier, and Kaiser, 2009; Dellaert and Stremersch, 2005; Franke, Keinz and Steger, 2009). There are two explanations of this phenomenon. The first interpretation is that customers break the assumptions embedded in the concept of rational agent of classic economic theories and they are willing to pay for a good they have already consumed.

A second interpretation assumes that the product resulting from the designing process becomes a symbol of the positive emotions experienced and thus incorporates more value for its author.

[1] A resume table with empirical researches on MC toolkits is presented at the bottom of the document.

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Methodology

Overview of the methodological framework

The study aims to explore the relation between the use of MC toolkits and the share of experience through the implementation of an experiment.
The basic design of the experiment is graphically shown in the section Introduction/Background.

Variables Measurement

There are 3 independent variables that will be measured: Accomplishment; Process Enjoyment and Product Involvement.

Accomplishment

As in the research conducted by Franke, Schreier, and Kaiser (2009) the feeling of accomplishment associated with the self-designed product is measured using the following three items: When I look at the product I have self-designed (1) " the feeling I have can best be described by the word 'pride' "; (2) "I feel proud of having accomplished something"; (3) "I feel proud because I did a good job".

Process Enjoyment

Following the work of Franke and Schreier (2010), process enjoyment is measured using five items taken from the established Intrinsic Motivation Inventory; (see http://www.psych.rochester.edu/SDT).

Product Involvement

In line with the study conducted by Franke, Keinz and Steger (2009) product involvement is measured using a reduced version of the personal involvement inventory scale (Zaichkowsky 1985), which consists of six five-point semantic differential scales measuring the subjective importance of newspapers, anchored with "matters" versus "doesn't matter", "important" versus "unimportant", "useless" versus "useful", "boring" versus "interesting", "not needed" versus "needed" and "essential" versus "nonessential".

Extent and modalities of sharing

The dependent variable regarding the willingness of consumer to share with others the experience or the final outcome of product designing can be measured with a composite index integrating the different modalities of sharing.

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Overview of Chapters

Chapter 1 – Introduction: The promise and the challenges of Mass Customization

- Explain the concept of Mass Customization, its attractiveness and the reorganization required to companies for its implementation.
- Provide real case examples

Chapter 2 - The research on Mass Customization: an overview of the existing literature

- Introduce the theoretical framework
- Highlight the sub-field of MC toolkits research (Interaction with consumer behavior)
- Describe the recent findings and the shift on focus: the importance of the process and the emotional dimension of creation.

Chapter 3 – Communication Theory and the phenomenon of experience sharing

- Brief overview of the selected communication theory framework
- Focus on the social sharing phenomenon
- References in the literature

Chapter 4 – The research study

- Aim of the Study: contribution and potential practical implications
- Experiment Design
- Method and Measurements; description of the sample
- Results Analysis
- Main Findings

Chapter 5 – Deepening on methodology and research limitations

- The rationale behind the selected measurement instruments and the type of data analysis. Sources and bibliographic references
- The limits of the research

Chapter 6 – General discussion

- Interpretation of findings
- Practical Implications

Chapter 7 – Conclusions

- Brief summary of the dissertation and final conclusions

Chapter 8 - Bibliography

Plan of Work

A chart showing the overview of the time scheduling for the research activity (GANNT) is inserted after the explanation of the work subcategories.

Designing of the experiment (25 days)

- Review of the experiment design
- Develop and fix the scale for the independent variables measurement
- Check consistency between measurements and data analysis method
- Review of the literature on communication theory to develop the dependent variable and its measurement
- Find an appropriate MC toolkit to be used for the experiment
- **Pretest of the level of enjoyment for the 2 MC toolkits**
- Choose the setting of the experiment
- Prepare the questionnaire

Recruit subjects and run the experiment (21 days)

- Understand the required size of the sample to obtain statistical significance for the results
- Recruit subjects
- Run the experiment (Average time for the designing task: 20 min. – Average time for subject: 30 min.)

Write the draft of the first 4 chapters (10 days)

Initial data analysis (10 days)

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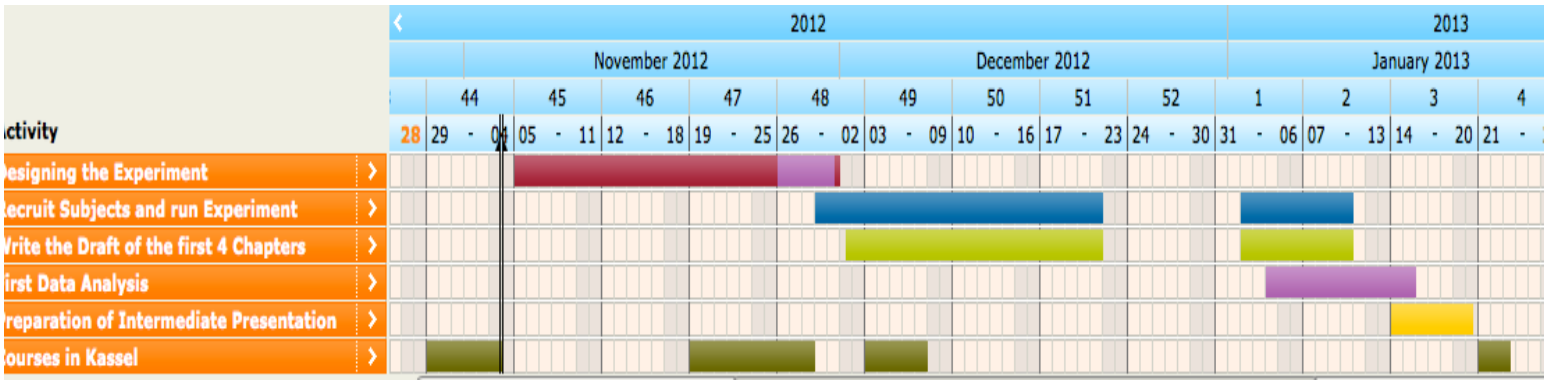
Figure 1 - Master Thesis in Kassel GANNT Chart



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