



1. Paul BLAZEK, 2. Klaus PILSL

## LEARNINGS FROM SETTING UP PRODUCT CONFIGURATOR PROJECTS

<sup>1</sup> Combeentation, IndiValue GmbH, Sarleinsbach & Vienna, AUSTRIA

**Abstract:** A large number of product configurator projects fail and doesn't achieve the goal to foster a conversion-driven online interaction between customers and the companies' product or service offerings. In analyzing these failures it is important to understand and prioritize the requirements of users and the requirements of companies in customization approaches. Matching these requirements with lessons learned from accompanying configurator projects four general recommendations can be identified.

**Keywords:** Product Configurator, Mass Customization, Lessons learned

### INTRODUCTION

The Configurator Database Report 2015 [1] states that »mass customization is in a constantly evolutionary process«, which can be seen very ambiguously. In this report 1050 online B2C product configurators in 16 different industries - that are listed in the Configurator Database (www.configurator-database.com) - have been analyzed and compared with the number of configurators that were captured a year earlier in the Configurator Database Report 2014 [2]. As depicted in figure 1 generally a growth in numbers has taken place - between 3% to 52% of configurators depending on the industry have been added from 2014 to 2015.

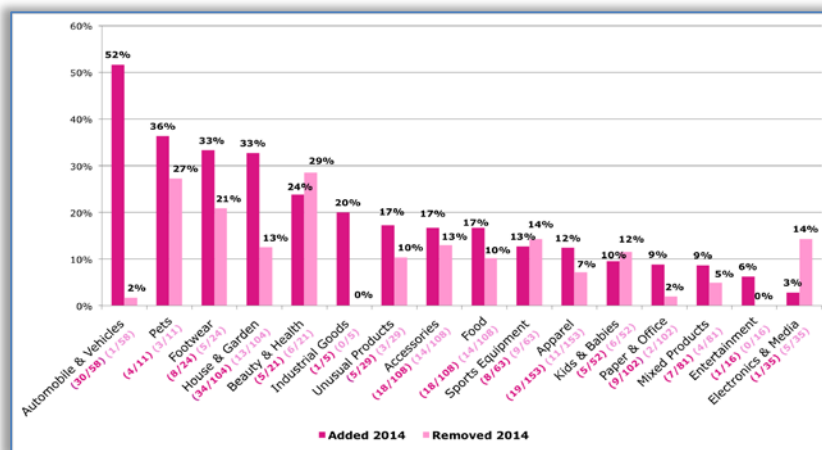


Figure 1. Added versus removed configurators in 2014

there is a quite high dropout quote of configurators every year. The following paper focuses on detecting why configurators are vanishing and what the failures of configurator projects may be. By taking a closer look at literature and by analyzing configurator projects that use Combeentation as configurator management system, challenges of configurator projects are identified. With Combeentation companies can develop their own flexible product configurators and adapt the user interfaces easily and quickly to find the right interaction environment that drives customer satisfaction. The research takes advantage of the experience gathered through numerous configurator projects which were personally supervised by the authors.

Nevertheless up to 29% of the configurators have been removed within one year [1]. The study The Customization 500 analyzed initially 600 product configurators. About 17% of the monitored configurators went out of business during the time of conducting the study, so in the end only 500 configurators are listed in the study [3].

As observed by both sources





## FAILURE OF MC PROJECTS

Various reasons for failed mass customization projects can be found in literature. Walcher and Weger [4] analyzed the question whether these closures and failures of mass customization organizations are a result of conventional business failure reasons or caused by weak points in the concept of mass customization. They developed a classification system for failure reasons based on publications and qualitative expert interviews. This classification system distinguishes between the categories market & customer (customer benefits, configuration, communication), product & process (finance, production, organization) personal factors) and mass production to mass customization & change management. Each being separated into four phases: innovation phase, customer requirements & customer interaction, inbound logistics & operations and outbound logistic & after sales derived and adjusted from Porter's value chain [4].

By taking a closer look at startups a failure might be that they do not progress out of their startup phase into a scalable business model. Reasons may be a lack of money, a wrong or no investment policy, a poor business model or even a wrong team structure [3]. But also existing companies, which want to expand their product range with individualized products may have problems introducing a mass customization strategy. The main reason for failure is that many companies don't focus on a specific target group for the configurable product and don't address this customers' specific needs in an appropriate way; instead the companies just offer features fitting to their existing process. Consequently the configurator is not used or the products are not purchased resulting in waisted money and lost efforts [5].

## DEFINED CHALLENGES OF CONFIGURATOR PROJECT PROCESSES

A growing number of mass customization companies utilize the powerful SaaS product configurator management system Combeentation to run their customer-product interaction ([www.combeentation.com](http://www.combeentation.com)). In accompanying these configurator projects frequently recurring challenges have been observed. A number of detected challenges in eight analyzed projects based on the matrix of Walcher and Weger [4]. To protect the privacy policy of the companies their names are not stated. Nevertheless all of them are operating in the field of B2C mass customization.

Market & Customers:

- ≡ no clear definition of the target group concerning the MC product
- ≡ didn't speak to target group
- ≡ no appropriate solution space (too many choices) → product complexity is too high/too much customization options
- ≡ market not appropriate for MC → enough standardized products
- ≡ to complex process
- ≡ no marketing budget or knowhow to promote the product
- ≡ too much time wasted on adjusting the configurator before launch
- ≡ no clear or tested product price strategy (to high price)
- ≡ wrong expectation/assessment of the defined target group (market not appropriate) → not meeting customers' expectations

Product & Process:

- ≡ no clearly defined targets → output of the configuration – no measurement
- ≡ inability to make a got for it → lack of management knowledge or marketing skills

Mass Production (MP) to Mass Customization (MC) & Change Management:

- ≡ no responsible project manager
- ≡ MC approach is not fitting to brand

The graphic below shows all elicited challenges in the matrix of Walcher and Weger [4]. Each company who faces a challenge of the previous list has been marked in the adequate field. The total sum of each field is visualized by the color red. The darker the field the more companies face challenges in this category. The heat map depicts that the most common challenges occur in A1 (market & customer/innovation phase), B1 (market & customer/customer requirements/interaction) and C1 (market & customer/inbound logistics). Summing up most of the evaluated companies face challenges in the category market &

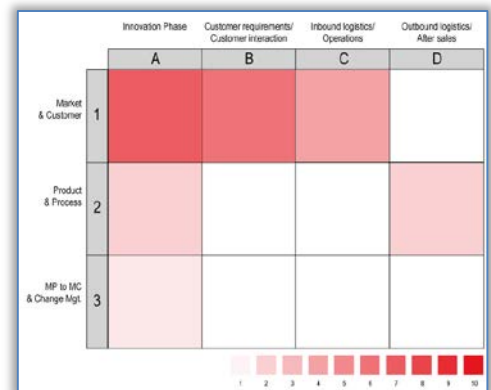


Figure 2. Heat map with challenges of the analyzed configurator projects (own representation based on Walcher and Weger [4])





customer as well as in the innovation phase and customer interaction phase. So it seems that the requirements of companies and customers have not been defined from the very beginning. Nevertheless the requirements should be detected and prioritized as a starting point.

## **REQUIREMENTS FOR CONFIGURATOR PROJECTS**

### **Requirements of customers**

To provide customers with a positive configuration experience the following criteria should be considered: help, usability and visualization. Help can for example be offered with an overall customer-help, a process navigation bar stating the progress of the process, an overall overview of the already done selection, system recommendations and many more. By means of usability the configurator should be easy in use, user-friendly designed and consequentially structured [5] [6].

### **Requirements of companies**

The main objectives companies pursue by offering individual products are image, profit and learn. Especially big companies focus on improving their image by offering custom products. Learn means that companies want to gather information from configured products to get a better insight in possible product trends as well as the preferences and demographic characteristics of their target group [5].

Successful MC startups want to react flexible and quickly to the demands of the market. They desire to develop minimal viable products to enter the market at an early stage. By constantly testing their offerings with different options they try to identify what their customers want [5].

Matching these requirements with lessons learned from accompanying configurator projects we introduce the following recommendations for companies they may consider when setting up a product configurator project.

## **LEARNINGS AND RECOMMENDATIONS**

The findings show that already in the innovation phase companies face challenges. The following recommendations should give a basis to avoid misleading in the beginning of a configurator project.

1. Target groups should be defined from the very beginning by using personas and customer journeys. It is essential to specify who the customer is, what his/her requirements and expectations according the customization process are and where he/she is being found (online vs. offline). This can be done by creating personas, who are fictitious characters with a specific look, habits and curriculum. Personas should have special characteristics such as a certain age, sex, desires, and predilection for devices (laptop, smartphone etc.), special shopping habits and many more. Visualizing a persona has no limits - pictures from the internet (i.e. photo databases) or comic characters can be used. The more details a persona has the more it comes to life. The main function of personas is to reflect a certain customer and target group and they are usually developed only for the internal use. By sketching preferred customer journeys for these personas, the essential requirements for the whole project can be determined. The customer journeys can include several components such as touchpoints, used devices, location, desires and many more. Not only for the configuration process these components are necessary, also for the overall marketing strategy and sales force it is crucial to know how and where to reach the customers.
2. Configurator projects should start slim and stay flexible after launch. In a customization project the configurator is the main touchpoint to the customer. That is why a lot of effort is put in the concept phase and implementation of the configurator. However, we recommend not to wait too long to launch the configurator or delay the initial launch; instead it makes sense to start slim and extend the configurator over time. This guarantees no delay in the project planning and saves money from the very beginning. Even if the configurator had a great launch, it is important to stay open according to the customer needs [7]. To name an example the company Flaschenhelden GmbH launched a brand to individualize sparkling wine called DeinSekt.de – during operations the user tracking data showed that a growing number of customers use the website and the configurator with mobile devices. Consequently they decided to make the configurator responsive by implementing a modified navigation, product positioning and extended content to serve customer device needs. In that case the modification has been facilitated by using the flexibility of an adequate customization software (i.e. Combeeneration). Figure 3 and 4 show a screenshot of the mobile and desktop version of the DeinSekt.de configurator.
3. Rapid prototyping should be considered for making process decisions. During the concept phase of a configurator project it is sometimes not clear which price strategy or process navigation is the best. These open decisions should not hinder the project launch, but be taken seriously. Such indicators can be tested with rapid prototyping and A/B testing. Using an appropriate software facilitates







configurator projects by having the possibility to implement two simple prototypes to test functionalities, process steps, design or pricing models. Also an already launched configurator can easily be adjusted with the right software to meet customer desires (i.e. Combeentation).



Figure 3. Desktop version of DeinSekt.de

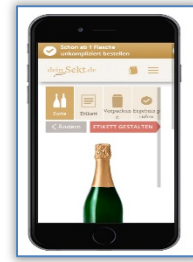


Figure 4. Mobile version of DeinSekt.de

4. Existing brands and products should not overestimate themselves.

Whether the company which offers a configurator is established or not, customers attention has to be drawn to the advantages of an individualized product. Brands should not expect that people use their configurator or purchase an individual product, just because they offer it. It is important that a continuous marketing strategy is embedded in the whole company and that a person or a team feels responsible for the configurator project.

5. Companies should track and analyze customer data and stay curious. Even if a configurator project has been successfully launched, the market can change very rapid and customers may create other or new needs.

Permanent data tracking and analyzing the traction will guarantee that occurring trends and new customer desires will be detected. To facilitate the data tracking for companies Combeentation implemented a service to read the configuration and website interactions. Not only interpreting the statistics of the own project is relevant, also monitoring competitors and benchmark companies gives insights into market trends and opportunities for differentiation.

## CONCLUSION

Taking a closer look at the challenges that occur in configuration projects there is a need for optimization right from the start. Beside declaring a concrete target group, rapid prototyping and building a configurator on a flexible system is essential. The recommendations gathered from lessons learned may be considered in configuration projects. Nevertheless the limitation of this paper is that the recommendations are based on a personal experience by accompanying several configurator projects. Even though the experience is gathered from projects of various industrial sectors and different complexities the recommendations are not empirically proven.

**Note:** This paper is based on the paper presented at The 7<sup>th</sup> International Conference on Mass Customization and Personalization in Central Europe – MCP–CE 2016 – Mass Customization and Open Innovation, organized in Novi Sad, SERBIA, September 21-23, 2016.

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FACULTY OF ENGINEERING HUNEDOARA,  
5, REVOLUTIEI, 331128, HUNEDOARA, ROMANIA  
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