SEVENTH FRAMEWORK PROGRAMME

NMP-2007-3.1-2
New added-value user-centered products and product services

SERVice Oriented **I**ntelligent **V**alue Adding n**E**twork for Clothing-SMEs embarking in Mass-Customisation

D1.1 Target Group Definition

Identifier

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Executive Summary

The core objective of this study is to answer the central question “What to sell to whom in mass customized apparel?”. Focused on the partners of the EU-funded SERVIVE project, a multi-million research initiative financed by the European community and a consortium of European companies, the study identifies forthcoming target groups which have not yet been covered fully by the existing players in the market.

Our research indicates that the current mass customization offerings in the apparel market are directed at target groups with a higher social status and modern basic value. Thus options for a dissemination to other milieus will be discussed. Moreover the needs of men and women regarding mass customized garments seem to differ significantly and must be addressed separately.

Mapping the offerings of more than 180 existing mass customization players in the fashion industry, our MC landscape shows that some product categories are overcrowded with me-too offerings while others are not covered yet. These “white spots” serve as a good starting point to develop a competitive product offering.

As a main result, three promising product categories can be identified: women’s business wear, knitwear and sportswear.

The research was lead by the following questions:

- Which customer segments have a high affinity for customized garments?
- Which needs are prevailing in these segments that can be met with customized products?
- Are there any major differences between men and women in their demand for customized apparel?
- Which product categories offer the highest potential within the identified customer segments?

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1. Objectives of the SERVIVE Project

The concept of mass customization makes business sense. Why wouldn't people want to be treated as individual customers, with products tailored to their specific needs? The **term "mass customization"** was first popularized by Joseph Pine, who 2003 defined it as "developing, producing, marketing and delivering affordable goods and services with enough variety and customization that nearly everyone finds exactly what they want." In other words, the goal is to provide customers what they want when they want it. Regardless of product category or industry, **successful mass customizers have turned customers' heterogeneous needs into an opportunity to create value**, rather than a problem to be minimized, challenging the "one size fits all" assumption of traditional mass production.

But mass customization has been trickier to implement than first anticipated, and many companies soured on the approach after a number of high-profile flops, including Levi Strauss' botched attempt at manufacturing custom jeans. Before long, mass customization was tagged as nothing but an unattainable business fad, more hype than substance. According to recent studies[1], **less than 0.01% of the 21bn garments sold in the EU every year are currently customized**. This reflects the huge potential for mass customized items. The **challenge for the SERVIVE consortium is to develop adequate strategies, production models, product ranges and technical solutions to exploit this potential**.

In this context, "**What to sell to whom?" is a fundamental question**, that should serve as starting point for all future considerations. Our perspective to answer this question is entirely customer-centric. The **customer centric view** is important as there is no inherent need for customized items in this product category – it must rather be aroused by the consumer, moderated by the market players like retailers or direct-selling brands. Due to the **strong linkage between *target groups* and *product categories*,** these two aspects need to be considered jointly in the following research. The goal is to offer the right products to the relevant target groups.

[1] Datamonitor, Apparel Import Data 2006

2. Research Approach

To reach this goal, both practical experience and academic research were taken into account. Starting point of the academic research was a joint analysis of socio-economic and psychographic criteria to narrow down potential target groups. This research was supplemented by a comprehensive literature review (*Appendix A.2*).

The explorative research was structured as follows:

- The most apparent first step was to ask the 14 SERVIVE consortium members for their opinion on potential customers and their needs.
- Based on these insights, we developed a questionnaire and conducted in-depth interviews with 15 international mass customization experts along the entire fashion value chain. Their statements on potential target groups and product ranges were categorized and major thrusts derived.
- In a third step, we used an existing proprietary database developed by Frank Piller, RWTH-TIM, in cooperation with Vienna-based consultancy "Cyledge" to identify about 180 mass customization companies worldwide from the apparel industry. These companies were screened in large detail to map the mass customization landscape in its status quo – highlighting white spots and saturated product categories in the market. These findings were matched with the expert views to derive promising product categories and corresponding target groups.
- The research was complemented by 10 detailed case studies of companies in the apparel industry with a successful mass customization offering.

3. Successful MC Strategies: The MC-Profit-Matrix

Every mass customization business can be split into **two dimensions**: an **external one, concerning the opportunity to profit from market heterogeneity**, and an **internal one concerning the complexity in fulfilment, sales and distribution**. This external dimension is stretched between a *partial* customization, which means a consumer can customize form, fit *or* function or a *complete* customization, where a consumer can customize all three options.[2] The **internal dimension relates to the degree of variety**, respectively the number of options that are offered.

The idea behind the profit matrix is to fulfil consumer needs *perfectly,* one should refer to *every* option that is modifiable for this product. While getting the possibility to change form, fit and function, every customer will find an end product that really suits to his requirements.

The **internal dimension** alludes to the degree of variety per option, one provides to the customer. Expanding this degree also leads to a higher fit between need and fulfilment. Of course this higher number of options also results in a higher complexity in fulfilment, sales and distribution, therefore there are two different opportunities how to place a company in this matrix best.

Figure 1 shows the MC-Profit-Matrix with some companies from the apparel industry. As highlighted there are two white spots, where currently no companies are placed: on the one hand there are no companies that customize for fit, form *and* function and offer a *high* degree of variety at the same time. On the other hand there are rather no companies that customize for fit, form *and* function and offer a real *low* level of variety to reduce complexity.

[2] These three options are also the underlying ones in subchapter 5.2

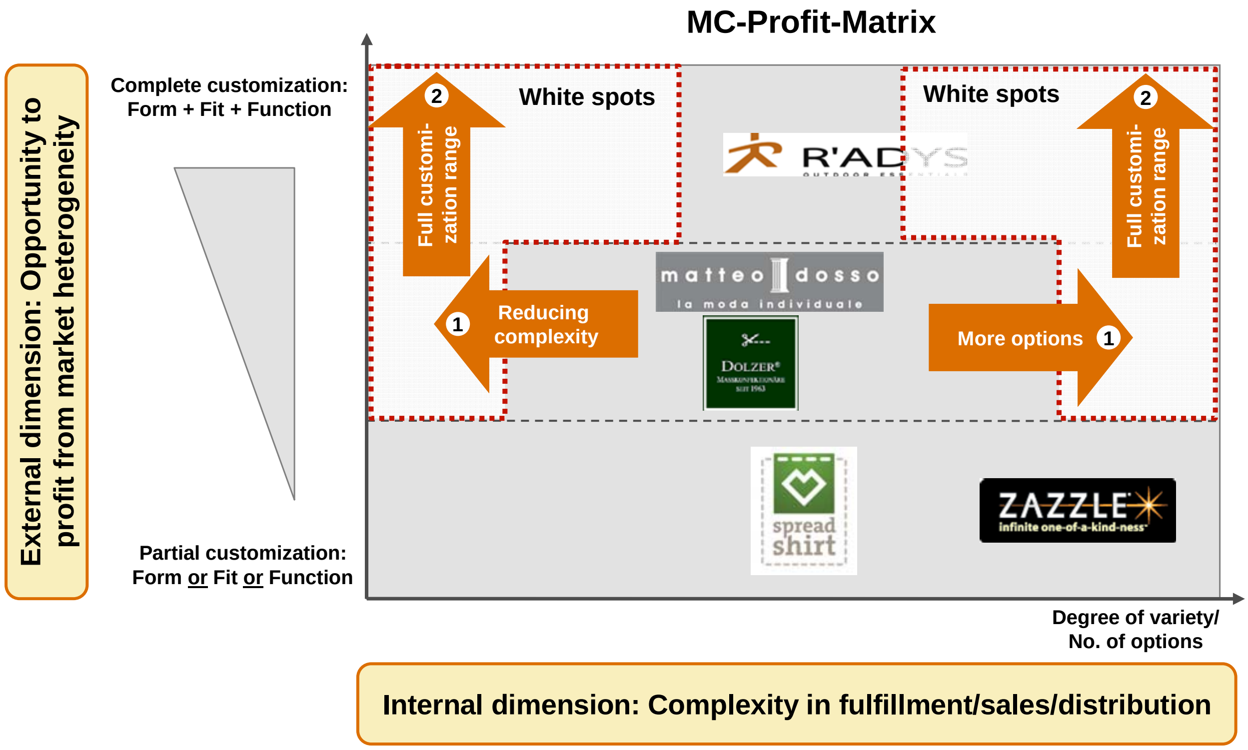

Fig. 1: The MC-Profit-Matrix

Therefore we can find **two options to better reach the customers requirements** (and in fact increase the company's profit)

- As already mentioned one can try to offer more options concerning the extent of variety and a full customization range meaning fit, form and function are changeable.
- Taking the rising complexity into account, the other worthwhile possibility to populate the white spots, is to offer this full customization range, *but* at the same time reduce complexity by reducing the number of options the customer can choose from.

With this knowledge at the back of our mind, we are able to choose the right products for our target groups to fill the identified white spots in the MC Profit Matrix and show a successful entry strategy into a mass customized apparel market.

4. Target group definition

4.1. Partner's view

According to their expert knowledge in specific fields, the consortium members named some important aspects that should be considered while proceeding.

First of all, there was a strong agreement, that men's formal business wear is – compared to other garments - one of the better developed businesses in mass customized apparel. What is obvious is the lack in the fulfilment of women's needs in all kinds of garments. From initial interviews with fashion experts available to **NTU researchers**, plus some market research, these are the initial recommendations:

The sector mentioned foremost in our interviews were **women's wear**, as this is typically double the size of menswear spend, and is not traditionally part of the customised clothing offer. This statement forced the idea to take women as target group into account.

It is unlikely that the SERVIVE system would compete with the very high priced bespoke market [e.g. Savile Row in London] but there is potentially significant demand below this level. Young fashion consumers [below 25 yrs] are unlikely to have the spending power, while 'affluent greys' of 50-60+ still feel 'forever 40' and wish to look smart.

Besides this, project partners identified growing niches like **over weighted people** as a important and fast-growing target group. In **France** these people are known as "so sweet", what leads to the fact, that these people do not want to be treated like exceptional cases, but moreover are really interested in their look and especially not only garments that fit but that are fashionable. In addition to this, consortium members pointed out that we also have to consider elderly and disabled people, because both groups have problems finding accurate garments that fit well (because of their non-average body and posture).

In the main geographical markets (**Europe, USA, Asia/Pacific**), the body dimensions are continuing to increase – in particular the main girths (Fig. 2). The adult (but also children) overweight and obesity prevalence have a direct impact on the body measurements and the body shape.

Hence **fit is becoming more and more critical**. Surprisingly many brand manufactures have not yet taken into account this morphological evolution in the design of their collections.

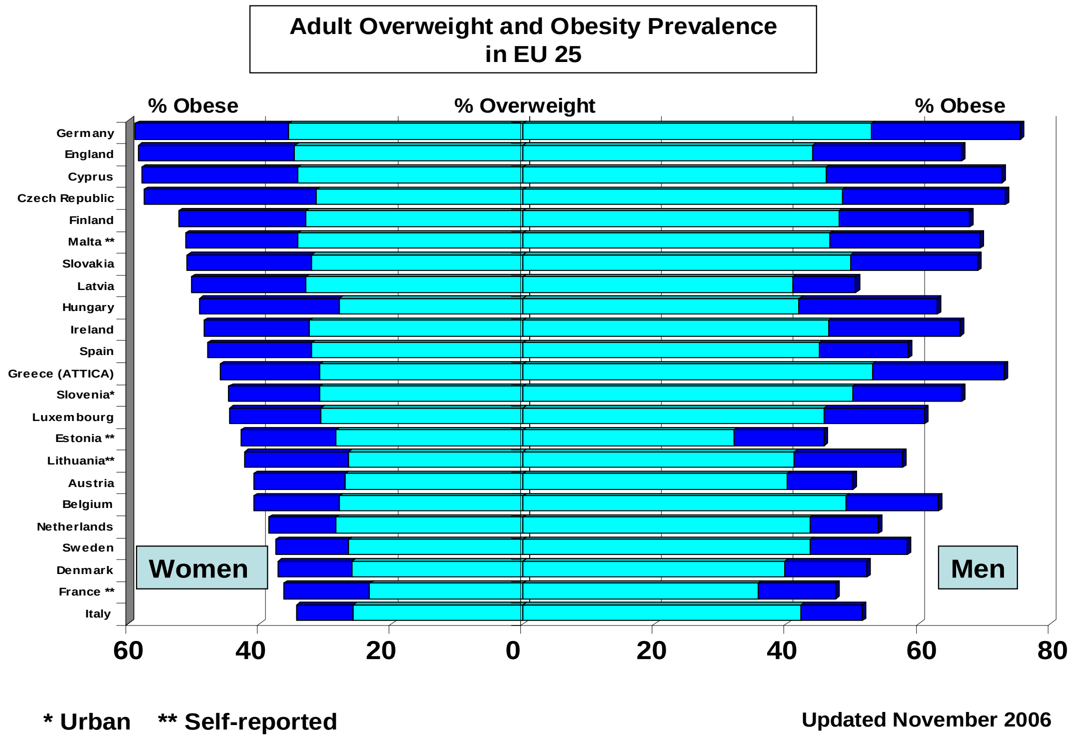

Fig. 2: Body measurements in EU 25

The knowledge about body shape and corresponding customer's fit expectation is getting more and more complex - but it is key to guarantee the satisfaction of customers. Thus the **body shape** should be one of the main criteria driving the product design in the SERVIVE project:

1. **Lifestyle segmentation: Conservative, Traditional ,Modern,...**
2. **Age group**
3. **Body Types: Rectangular, Pear, Hourglass,...**
4. **Fit Preferences: Fitted, semi-fitted,...**

Fit Preferences are important to offer different options regarding how they like to wear their garments.

A **KSA study** has indicated that 50% of women and 62% are dissatisfied with the fit of their apparel. Fit problems are costly and frustrating not only for consumers, but also for apparel manufacturers and distributors. The default sizes proposed by apparel manufacturer are often not suitable and do not cover well the range of diversity in human morphology. Recent sizing surveys in Europe revealed that there is a huge gap between the current sizes and those of the 70ies that are still being used as reference by many apparel manufacturers.

In the following, **we will focus on the clothing and fashion needs of a European population in working age**, i.e. excluding children and the very old. These could be areas of possible future research, but are outside the scope of our study.

This paragraph aims to concentrate on those sectors of the population with slightly a-typical shaped bodies, but who nevertheless are likely to have a significant demand for fashionable clothing. In order to establish the market needs, it is necessary to **clarify the types of non-standard shapes** that are most relevant, and product priorities such as fashion aspects and most-needed garment types.

"A-typical shape" can include the **able-bodied** who happen to be outside the range of 'normal' mass-market clothing offerings from High Street retailers. This might be the **very tall, very short, or extremely obese sectors**, but could also mean those with unusual proportions or body shape. An obvious sector of this population also is the **disabled**.

According to reports from the 2003 European Year of People with Disabilities (www.eypd2003.org), 1 in 10 persons are disabled in some respect, amounting to around 37 million people in Europe. However, this total includes those suffering from mental as well as physical disability, i.e. outside the scope of this project.

Similarly many are in the very old age segment of the population that has a minimal need for new clothing and little interest in fashion. The American National Center for Health Statistics claims up to "15% of adults with some physical functioning difficulties", though again this is a very broad categorisation. Thus disability such as arthritis (osteo and rheumatoid) is excluded, as this tends to affect joints and movement rather than body shape and clothing fit in the sector being researched.

4.2. External expert view

As mentioned before, we surveyed 15 experts of the fashion industry on the market demand for mass customized apparel. Expert views on target groups were quite heterogeneous. Concerning the demographics, the experts made a clear differentiation between consumers using the **online or the offline channel** while shopping. Consumers shopping online for customized clothing are seen as **inherently active and creative online**, they are up to 40 years old, but mainly younger. Experts think they primarily wish to express themselves through design or style, are tech-savvy, better-educated and involved in blogs and/or communities.

Regarding the offline channel, consumers are up to 60 years old, typical individualists and for the most part looking for something exclusive. These findings correspond with the results we found on the basis of the Sinus Milieus.

Due to our previous research, we decided to differentiate between men and women when asking for consumers needs. This consideration was confirmed by the experts' replies: most of them saw **enormous differences between men's' and women's needs and their shopping/buying behaviour for customized clothing**. If we take a closer look at women, they seem to treasure fit, directly followed by style. Currently they have a lower demand for business wear, but this is fast growing. In particular, our experts would suggest that women want a kind of **"shopping experience"** (therefore, we are working on a Style Advice in later stages of the project). For men, convenience is seen as more important than for women. They are currently better catered with customized products and seem to behave "easier" while configuring and buying their product.

Concerning the geographical differences we asked for, **North and South European countries** seem to differ regarding demand, willingness-to-pay and preferences, but in general experts do not see major discrepancies. **This is an important observation within this project** because results and even more *products* of SERVIVE will be shared overall Europe. This conclusion however has to be confirmed by own research.

While the consortium members and international experts extensively reviewed successful mass customization offerings in- and outside the apparel industry, the question of *relevant* target groups and products for the SERVIVE project could not be entirely solved.

To identify important references that have to be considered in the project - exemplified by successful mass customization companies inside and outside the apparel industry - , a number of ten companies will be described more precisely in case studies. This work is still in progress because the description and analysis of these companies is not limited to target groups, in fact there is additional attention paid on their business models, style advice and success factors. Before presenting our MC landscape, we will give a review of the topic "Sinus Milieus", which we used as fundament of our theoretical research concerning target groups.

4.3. Customer preferences

As already mentioned women seem to be a very important and not yet covered target group for mass customized products. Therefore **IFTH** conducted a market study and asked 251 women between 13 and 73 about their demographics, morphology, preferred style and attitude towards personalised apparel. We want to show the key points of this worthwhile study regarding the relevant target group aspects. 94,4 % of the interrogated women are very interested in personalized garments, 90,8% of these women would like to change form or Style, 86,% would like to change the fabric. Women are not satisfied with the cut, the pattern and the materials that are offered. Moreover they are not pleased about the garments fit. (77% declared, that the labelled size corresponds to their real size; 61,8 % included a “sometimes” in their answer.) Concerning the price, 81% of the women interested in mass customized garments are ready to pay a higher price (for an average price of 80€, 61,7% would pay between 5 and 10% plus and 43,6% would pay between 5 and 10€ plus.)

This willingness to pay is very important to retailers and manufacturer as long as the production of customized apparel is more expensive than mass produced apparel. “Willingness to pay” generally refers to the value of a good to a person as what they are willing to pay, sacrifice or exchange for it.

An important question of the SERVIVE-project is to determine the willingness to pay of the mainstream (and in particular regarding our target groups) related to customized clothes. Therefore we tried to find some indications for the general willingness to pay by interviewing our external experts and analysing the companies that were found in the configurator database.

Based on the evaluation of the interviews we could not derive a distinct statement related to the willingness to pay. The range which the experts named, reached from “a lower price than mass-produced clothes” up to “a premium of 100% to the standard can be realized”. Also the heat map does not enable an explicit conclusion. The reason therefore lays in the fact that the number of available online-configurators is midget, the price-range at the same time wide, so that no distinct statement could be derived as well.

Certainly it could be deduced that the willingness to pay is depending on the customer-segment which is very heterogeneous. According the aim to address a wider range of especially lower-income-milieus is it necessary to reduce the present prices.

For the price definition the project-practice-partners were consulted. So the price-finding/ willingness to pay will be based on their experience or knowledge related to the production-costs and their know-how concerning the willingness to pay in relevant product segments and is not set as a fixed premium on regular prices. These prices play an important role in the next subchapter because some of the shown demographic aspects influence the willingness to pay of the consumer.

4.4. Customer segmentation: Sinus-Meta-Milieus®

Sinus-Meta-Milieus® are reflecting transnational-lifeworld segments as basis for international marketing. Editor is the Sinus Sociovision GmbH - an expert for psychological and social research and consulting in Europe. Sinus Sociovision develops strategies for enterprises and institutions which are willing to make use of sociocultural change for future prosperity.

The target group definition takes place by systematic intercultural comparison (bottom-up) on the basis of national Sinus-Milieu®-models.

Across the national boundaries it is possible to identify common basic orientations, values and lifestyles. People from different countries but comparable milieus have more in common then with other compatriots. Comparable milieus of different countries become pooled to broader segments of their social environment, the Sinus-Meta-Milieus®.

Origin is the concrete respective everyday world: Historical background and local/national conditioned specifics are playing a central role in the daily routine of consumer. Consequential the target group definitions and milieus become derived for five big EU-states.

This research approach leads to a wide range of target groups: 44 Sinus-milieus were identified in 5 big European states. Next step is to select transnational-commonalities by use of a systematic intercultural compare. A consistent positioning-model will be developed out of this: The illustration -following the social situation and basic alignment- appropriates an orientation grid that allows the positioning of single national milieus as well as transnational groups by homogeneous criteria and definition of segments that aggregate similar milieus – in terms of structure and content - from different countries in transborder target groups. The result are seven Sinus-Meta-Milieus® in western Europe:

- **Traditional:** Certainty and status-quo-orientated; Hold on traditional norms like fulfilment of one’s duties
- **Established:** Motivation and demand to leadership; Awareness of status and distinct requirement for exclusiveness
- **Intellectual:** Cosmopolitan and post-material values; Distinct cultural and intellectual interests. Pursue to self-fulfilment and personality development
- **Modern mainstream:** Desire for a pleasant and harmonical life; Pursue to material and social safety
- **Consumer materialistic:** Consume-material orientations; Keeping connection to “consume-standards” of mainstream but often social disadvantaged groups and disrooted

- **Sensation orientated:** Search for fun, action, new and intensive experiences
- **Modern performing:** Young, flexible and social-mobile. Intense life in terms of success and fun; High qualification and motivated; Multimedia-fascination

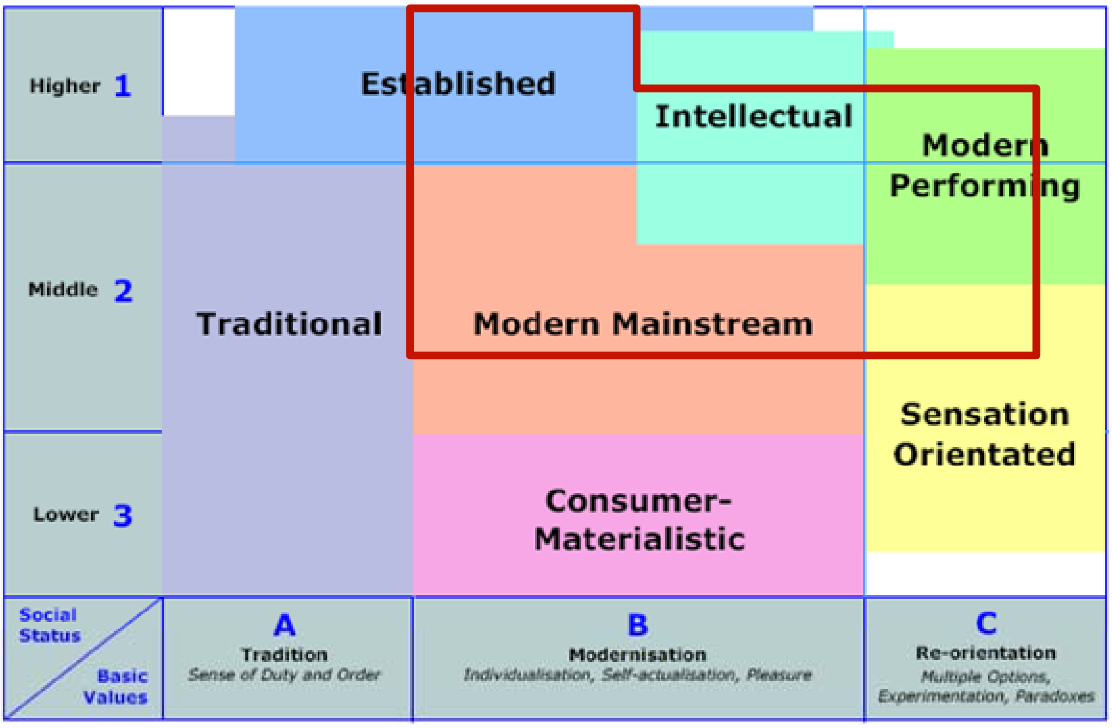

Fig. 3: Sinus-Meta-Milieus®

These Sinus Meta Milieus constituted the **starting point for the target group identification**. In 15 interviews with international mass customization-experts data was collected about actual and possible future target groups. These data could be summarized and classified by means of the Sinus-Meta-Milieus.

Current target-groups could overall be located in five Milieus (Fig. 3): ***Established, Modern Mainstream, Intellectual, Modern Performing*** **and** ***Sensation Orientated.***

Related to one of the project aims, dissemination in other than the already covered milieus is planed. **Today there is less than 0,01% of the apparel market mass customized. That means that there is still a large potential in every segment. To attain this achievement different approaches should be used:**

1. The prices/ costs of customized clothes have to decrease so that these kind of clothes become more attractive for milieus with lower incomes like the “Consumer Materialistic”.

2. In addition customization of clothes is felt as something special for financially well situated purchaser. This point of view shall be influenced that customization becomes more common and will be accepted as a real purchasing option for additional milieus, especially the “Modern Mainstream” and the “Consumer Materialistic”. This is associated with the need to open new distribution channels to get through to new purchaser both via internet and in stores.

3. Third approach would be to provide customers a higher degree of variety in relation to customized clothes as well as more options during the configuration-process. This way, customized clothes would even better fit the individual needs of every single customer- and with a higher degree of variety, one could even fulfil the very special needs of the “Intellectual” and the “Modern Performing” -milieus.

These three approaches express perfectly the results we got in this subchapter. No doubt we have to summarize that the definition of a target group is quite difficult, because the groups we want to address with mass customized apparel are quite heterogeneous: male and female, from 25-65 years, higher and lower income, higher and lower social status, more or less creative. But we do not see this as a risk but rather a chance to really make a huge group of consumers aware of mass customized apparel. Nevertheless there was the necessity to arrange the actual MC offers within the Apparel Industry and on this basis derive products and link them to relevant target groups, that could fulfil our requirements. For this reason we discovered the MC landscape that is described in the next chapter.

5. Mass Customization Landscape for the Apparel Industry

5.1. Introduction

A profound strategy is the fundament for every successful business. Strategy should always be designed to provide competitive advantage. Porter (1980) differentiated 3 generic strategies (Fig. 4): 1. Cost leadership, 2.Differentiation, and 3. Focus.

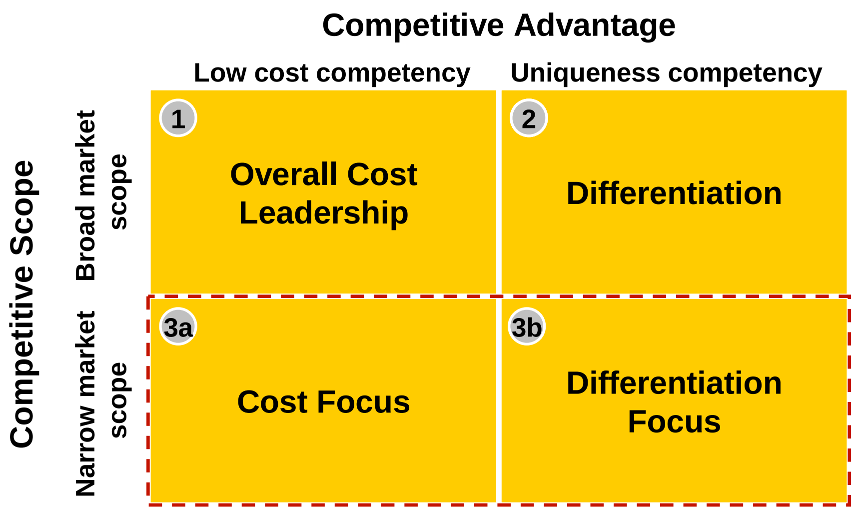

Fig. 4: Porter's generic strategies

The overall goal of the SERVIVE consortium is **neither to resume cost leadership in the apparel market nor to pursue a wide scope differentiation strategy**. We should rather focus effort and resources on a narrow, well defined segment of the market. Competitive advantage can then be generated specifically for this niche. **But how do we find this profitable niches?**

Interviews with international mass customization experts from the apparel industry revealed that there is no clear opinion which product categories to target and which are already fairly saturated. Thus we had to find a more systematic approach to discover the white spots in the market for mass customized apparel. For this purpose the concept of heat maps will be introduced.

5.2. Methodology

To identify relevant companies in the apparel industry with a mass customization offer we used the International Configurator Database (http://www.configurator-database.com/). This database is the world's biggest database of online mass customization offerings, **featuring over 500 web-based configurators from various industries**. Our final sample comprised **180 companies from the apparel industry**. However, please note that only companies with an online configurator were considered. This means that we possibly missed out a number of companies in the respective markets that use exclusively offline sales channels (e.g. shops, traveling tailor).

In a second step, we tested the online configurators of each of these 180 companies and **recorded the customizing options along a predefined matrix** (Fig. 5). Per company we compiled a separate matrix for the product offerings for men and women. As described in chapter 4.2 this distinction is necessary due to significant differences in the needs and buying behavior of men and women. Moreover men currently seem to be better catered with customized products in product categories such as business wear.

			Product categories							
			Businesswear							
			Suits	Shirts	Sportswear	T-Shirts	Knitwear	Jeans	Underwear	Special occassion clothes
Customizing options	Fit	1. Match-to-order								
		2. Made-to-measure	x	x						
		3. Self-selection								
	Form	1. Color/Pattern	x	x						
		2. Cut	x	x						
		3. Application	x	x						
	Func-tionality	1. Weather protection								
		2. Wearing comfort	x							
		3. Intelligence								
	Physio-gnomy	1. Disabled								
		2. Overweight	x	x						
		3. Oversize	x	x						

Fig. 5: Customizing options per product category

The ***horizontal axis*** of the matrix covers the **seven most relevant product categories in the apparel industry** with regard to mass customization: business wear (suits/shirts/blouses), sportswear, t-shirts, knitwear, jeans, underwear and special occasion clothes (e.g. wedding dresses). The *vertical axis* summarizes the **customizing options per product category**. According to the general consensus in the mass customization literature we differentiate between *Form*, *Fit* and *Function* (e.g. Piller/Müller 2004). The subcategories are defined as follows:

Form:

- *Match-to-order:* Customer's body dimensions and preferences are matched with the ready available stock in the market and the best match is recommended to the customer.
- *Made-to-measure:* Clothes are custom-made according to the customer's body dimensions and preferences.
- *Self-selection:* Customer selects from a range of standard customizing options to configure the piece of clothing.

Fit:

- *Color/pattern:* Customer can select from a range of different colors and/or patterns to create an individual piece of clothing.
- *Cut:* Customer can select between different cuts (e.g. classic vs. fashionable).
- *Application:* Customer can select e.g. the design of collar, cuffs and buttons.

Functionality:

- *Weather protection:* Customers can equip their garments with functions like water-repellent or windproof.
- *Wearing-comfort:* Options like breathable or non-iron fabrics increase the wearing comfort for the customers.
- *Intelligence:* Intelligent garments help locating a person after an avalanche, produce energy with solar panels or check the cardiac function of the owner and trigger an alarm in an emergency case.

Due to some discussions with consortium members in the run-up of this study, we also included **Physiognomy:**

- *Disabled:* Customers with specific needs due to a physical handicap
- *Overweight:* Customers with specific needs due to their girth
- *Oversize:* Customers with specific needs due to their body height

In a **third step,** we counted the entries in the individual matrices and visualized the accumulated results in so-called **heat maps**. To simplify the analysis and reasoning we differentiated per gender (male/female) and compiled separate heat maps for the European landscape, the US landscape and the consolidated global landscape. This leaves us with a total of 6 different heat maps that will be discussed in further detail in the following section.

To visualize the results we used the following color coding for the European and US landscape:

- **Light blue: 0 entries per field**
- **Yellow: 1-10 entries per field**
- **Orange: 11-20 entries per field**
- **Red: > 20 entries per field**

5.3. Results per product category and region

5.3.1. Mass customization offerings for female consumers by European providers

		Businesswear							
		Suits	Blouses	Sportswear	T-Shirts	Knitwear	Jeans	Underwear	Special occassion clothes
Fit	1. Match-to-order	2	2	1	2	2	1	0	0
	2. Made-to-measure	2	8	0	0	0	0	0	0
	3. Self-selection	0	2	20	42	2	1	8	0
Style	1. Color/Pattern	2	10	20	40	1	1	8	0
	2. Cut	2	9	0	3	0	0	0	0
	3. Application	1	9	20	42	2	1	7	0
Func-tionality	1. Weather protection	0	0	1	1	0	0	0	0
	2. Wearing comfort	0	0	1	1	0	0	0	0
	3. Intelligence	0	0	0	0	0	0	0	0
Physio-gnomy	1. Disabled	0	0	0	0	0	0	0	0
	2. Overweight	1	7	2	7	0	0	0	0
	3. Oversize	1	7	2	8	0	0	0	0

0 companies **1-10 companies** **11-20 companies** **> 20 companies**

Fig. 6: European landscape female

The heat map (Fig. 6) shows only 2 providers of **suits** for **women** in Europe. This observation corresponds with the opinion of many experts in our interviews that women's needs in the business wear segment are currently not adequately catered to. But as more and more women are moving into senior management positions we will see a growing demand for exclusive, tailor made business wear for women. Women want to draw level with their male colleagues in the management who have been wearing bespoken business wear for generations. However, in contrast to men fashionability is much more important to women. They require the collection to be updated at least twice a year and the latest fabrics, colors and applications to be on stock. This arouses several problems along the value chain as sourcing, design and manufacturing must be adapted on a regular basis. Thus the challenge regarding women's business wear is to offer a fashionable collection which is still profitable. Interestingly, the aspect of functionality of business wear (e.g. crease-resistant) is currently not addressed by the market at all.

Regarding **blouses** the picture is slightly different as most manufacturers of custom-made shirts cater to both sexes. This is not surprising as blouses are less complex products compared to suits with a limited choice of customizing options. Special needs of women with overweight or oversize are also accounted for. However, fashionability is also an issue with blouses which could affect profitability – as discussed before.

In the **sportswear** segment we find quite a few companies. But most of them confine themselves to customization offerings regarding color/pattern and applications. This means teams can order their jerseys in their team colors and print their logo on it. Only one company makes use of the opportunity to equip its sportswear with functionality. None of the companies caters to the special needs of sportive disabled people.

The **t-shirt** segment is already fairly saturated. The 42 online providers are competing with countless small copy shops that are also printing t-shirts on demand.

Knitwear is still a white spot in the market with only 2 players currently active in this segment. One company (ateliergs.com) has developed its own size measurement table for mature women and offers special size advice online and via the phone. While fit is less relevant in this product category due to the elasticity of the fabrics it offers many customizing options regarding the style.

While **jeans** are quite big in the USA it is only a niche in the European market with one serious player up to now.

A few companies are active in the **underwear** segment – but none is tackling the challenge to offer underwear made-to-measure or at least match-to-order. Customizing options are restricted to color/pattern and applications.

No vendor of customized **special occasion clothes** could be identified in the European market.

5.3.2. Mass customization offerings for male consumers by European providers

		Businesswear							
		Suit	Shirt	Sportswear	T-Shirts	Knitwear	Jeans	Underwear	Special occassion clothes
Fit	1. Match-to-order	1	5	0	1	1	0	1	0
	2. Made-to-measure	3	18	0	0	0	0	0	0
	3. Self-selection	0	4	20	42	2	1	6	0
Style	1. Color/Pattern	3	23	20	40	1	1	7	0
	2. Cut	3	22	0	3	0	0	0	0
	3. Application	2	21	20	42	2	1	7	0
Func-tionality	1. Weather protection	0	0	1	1	0	0	0	0
	2. Wearing comfort	0	0	1	1	0	0	0	0
	3. Intelligence	0	0	0	0	0	0	0	0
Physio-gnomy	1. Disabled	0	0	0	0	0	0	0	0
	2. Overweight	2	19	3	10	1	0	1	0
	3. Oversize	2	19	3	10	0	0	1	0

0 companies 1-10 companies 11-20 companies > 20 companies

Fig. 7: European landscape male

The picture for **men's business wear** is somewhat misleading. Naturally there are more companies active in this segment besides the three listed here – but they exclusively use offline sales channels such as retail shops or travelling tailors and thus were not considered in this study. However, some of them offer the opportunity to place a repeat order via the Internet.

As one might expect the **dress shirt** market for men is pretty well covered. Most vendors also cater to the special needs of people with overweight or oversize.

The **sportswear** segment is similar to that for women. The customization range is virtually limited to color/pattern and application.

The **knitwear** segment for men also seems to be underdeveloped with only 3 relevant players. The customizing options are generally limited embroidery.

In the **underwear** segment one company arouses interest with a special match-to-order offer for overweight or oversized people.

Just like for women the **t-shirt** market is already fairly saturated, while **jeans** and **special occasion clothes** are still white spots. As men in general do not have a big fit issue with jeans the potential for this segment is presumably limited.

5.3.3. Mass customization offerings for female consumers by US providers

		Businesswear							
		Suit	Shirt	Sportswear	T-Shirts	Knitwear	Jeans	Underwear	Special occassion clothes
Fit	1. Match-to-order	0	1	0	0	0	1	0	0
	2. Made-to-measure	0	1	0	0	0	1	0	1
	3. Self-selection	0	7	24	36	2	1	6	0
Style	1. Color/Pattern	0	5	21	30	0	3	6	1
	2. Cut	0	1	0	1	0	2	0	1
	3. Application	0	8	23	36	2	3	5	1
Func-tionality	1. Weather protection	0	0	0	0	0	0	0	1
	2. Wearing comfort	0	0	1	0	0	0	0	0
	3. Intelligence	0	0	0	0	0	0	0	0
Physio-gnomy	1. Disabled	0	0	0	0	0	0	0	0
	2. Overweight	0	5	6	8	2	1	1	1
	3. Oversize	0	5	7	9	2	2	1	1

0 companies **1-10 companies** **11-20 companies** **> 20 companies**

Fig. 8: US landscape female

Interestingly we could **not identify a single vendor offering bespoken business wear for women** in the US market. This is clearly a white spot.

Not surprisingly the market for **sportswear** and **t-shirts** is well covered in the USA with iconic companies such as spreadshirt.com or zazzle.com.

Two companies are offering **knitwear** – but with a very narrow customization range limited to applications (embroidery).

Jeans are a pretty big segment in the US with very successful companies such as indidenim.com.

One company is active in the **special occasion clothes** segment.

Not surprisingly for the US market the special needs of people with overweight or oversize are met in every product category.

5.3.4. Mass customization offerings for male consumers by US providers

		Businesswear							
		Suit	Shirt	Sportswear	T-Shirts	Knitwear	Jeans	Underwear	Special occassion clothes
Fit	1. Match-to-order	0	1	0	0	0	1	0	0
	2. Made-to-measure	0	8	0	0	0	1	0	0
	3. Self-selection	0	6	22	32	3	1	3	0
Style	1. Color/Pattern	0	12	19	27	1	3	3	0
	2. Cut	0	8	0	0	0	2	0	0
	3. Application	0	14	22	32	3	3	3	0
Func-tionality	1. Weather protection	0	0	0	0	0	0	0	0
	2. Wearing comfort	0	0	1	0	0	0	0	0
	3. Intelligence	0	0	0	0	0	0	0	0
Physio-gnomy	1. Disabled	0	0	0	0	0	0	0	0
	2. Overweight	0	11	6	8	2	1	1	0
	3. Oversize	0	11	7	9	2	2	1	0

0 companies **1-10 companies** **11-20 companies** **> 20 companies**

Fig. 9: US landscape male

Just like for women there is no company with an **online offering** tailor made **business wear** for men in the US market. The rest of the market is also similar to the US landscape female – with the exception of special occasion clothes that are not offered for men.

6. Conclusion and Recommendation

Although the mass customization apparel landscape shows no clear picture, **some important insights can be derived:**

- Some product categories are overcrowded with me-too offerings (e.g. t-shirts) while others are hardly covered yet (e.g. knitwear, jeans).
- Women's needs are not yet adequately catered to – especially in the business wear segment.
- Triple-play offerings, combining form, fit, and function, are almost non-existing, but provide huge opportunities to create sustainable value – as suggested by the MC-Profit-Matrix.

Based on these insights, three promising niches could be identified that should be targeted by the SERVIVE consortium:

1) **Women's business wear**
2) **Knitwear (male / female)**
3) **Sportswear**

Women's business wear was chosen because it is still a white spot in the market. However, the vast experience from the men's segment regarding sourcing, manufacturing and sales can be transferred to the women's segment – leaving the consortium with more freedom to focus on women's special needs, develop a fashionable collection and offer a unique shopping experience. As suggested by the MC-Profit-Matrix the challenge is to offer an optimal degree of variety without jeopardizing profitability.

Knitwear can be produced locally and on demand in so-called micro-factories. Moreover knitwear is worn by costumers from almost every milieu. This serves the goal of dissemination to other milieus – e.g. through differentiated pricing.

The challenge regarding **sportswear** is to make use of the full customization range (form, fit and function) to achieve a competitive advantage. Sportswear also serves the goal to bring the idea of mass customization to milieus in the lower left end of the matrix.

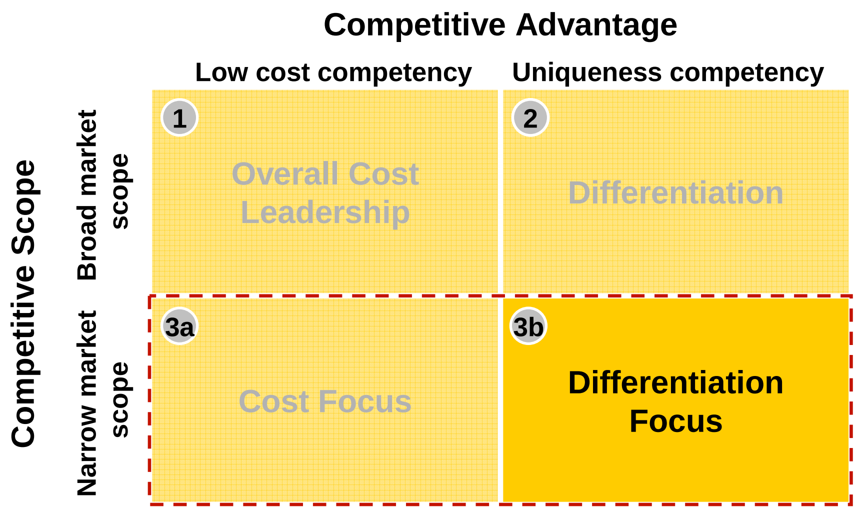

Fig. 11: Differentiation focus as superior strategy

According to its definition the concept of mass customization has an inherent cost focus. However, the SERVIVE consortium believes that differentiation is key to create a sustainable competitive advantage in the aforementioned product categories (Fig. 11). Thus the development of differentiation strategies should be the focus of the next stage of the project.

7. Summary and Next Steps

Based on the different perspectives considered in this study, the following key insights can be derived:

(1) **Triple-play offerings**, combining form, fit, and function, are almost not existing in the apparel market, but provide huge opportunities to create sustainable value.

(2) The **tradeoff between perfect fulfillment of customer needs and managing complexity** should be carefully considered when defining the entry strategy. A high number of customizing options is not necessarily a superior strategy as it results in a higher complexity in sourcing, manufacturing and distribution.

(3) **Fit is becoming more and more critical** in the light of the overweight and obesity prevalence among European customers. This is paving the way for mass customization as many brand manufacturers have not yet adapted their collections to this morphological revolution.

(4) **Men’s and women’s needs regarding apparel and their shopping behaviour for customized apparel differ significantly**. Women’s needs are currently not adequately catered to – especially in the business wear segment.

(5) **Mass customization today only targets a few Sinus milieus**, there are many white spots to explore.

(6) **Dissemination strategies** consist in differentiated pricing and the development of new distribution channels or the offering of a higher degree of variety.

(7) One of the major challenges is to **create awareness for mass customized products** as there still is huge potential in every market segment.

(8) **Branding is key in the MC segment** to provide guidance for consumers and a reference point.

(9) **Some product categories are overcrowded with me-too offerings** while others are not covered yet.

(10) Mass customization has **huge potential** to deliver process experience – a profit opportunity not really exploited yet.

These insights shall lead the development of a competitive product offering in the three identified segments women’s business wear, knitwear and sportswear.

Appendix

A.1 Presentation of the Technical Meeting in Athens

PLEASE CLICK HERE FOR THE FULL FILE:

C:\Documents and Settings\Harzer Thors

A.2 Literature Review

Consumers' attitudes and needs	Consumers' experience and knowledge
• *customer customization sensitivity:* sacrifices consumers make when buying standard products (Hart 1995); overall affective attitude toward customized products (Guilabert and Donthu 2006) • *consumer readiness:* willingness to pay increased prices, accept delay in delivery and invest time and effort in co-design (Bardakci and Whitelock 2003) • *desire for unique products:* inherent need for rare products to pursue self-distinctiveness (Lynn and Harris 1997a; Kreuzer and Kühn 2006; Franke and Schreier 2008) • *experimenting with appearance* and *enhancement of individuality* as personal values (Fiore et al. 2003, 2004) • *(dis-) satisfaction:* utility obtained by regular offerings in the base product category (Kaplan et al. 2007) • *product category involvement* (Ulrich et al. 2003; Park et al. 2000)	• *base category consumption frequency:* indicat heavy usage and product familiarity (Kaplan e 2007) • *consumer experience:* subjective measure related to the product categ and online shopping (Crow 2005) • *consumer expertise:* subjective measure related to the product cate (Dellaert and Stremersch 2005) • *consumer knowledge:* subjective measure related to the product categ (Kramer 2007) • *objective consumer expertise:* measured by th number of correctly answered questions about product category (Randall, Terwiesch and Ulr 2007) • *consumers' stability of and insight into their preferences* (Simonson 2005)