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IS MASS CUSTOMIZATION THE PATH FOR SMALL AND MEDIUM ENTERPRISES TO GROW INTERNATIONALLY? CASE STUDY OF THE PORTUGUESE FOOTWEAR INDUSTRY.

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## **Abstract**

**Purpose** – The purpose of this paper is to understand Small and Medium Enterprises (SMEs) features in order to see if Mass Customization could be a growing international strategy. The investigation is going to answer if SMEs characteristics are advantageous or not in order to implement mass customization as an international strategy.

**Design/Methodology/Approach** – This study is a result of the systematic approach. In order to do an exploratory investigation, 19 interviews were carried-out with different players of the Portuguese footwear industry (suppliers, producers and agents/intermediaries).

**Findings** – With both literature and collected data, and based on SMEs characteristics, mass customization is a possible internationalization strategy. However, the role of the entrepreneur, based on its profile, strongly conditions SMEs decision to choose the customization path. Not only the study answers our initial question, but also discloses the current *status* of Portuguese SMEs in the footwear industry.

**Originality/Value** – This investigation allows readers to comprehensively understand SMEs and a different way of internationalization. This investigation gives insightful knowledge on companies' advantages and disadvantages, suggesting they can improve and grow internationally with a different strategy. It adds information to the present state of Portuguese SMEs, specifically in the footwear industry.

**Keywords** – SMEs, Mass customization, SME internationalization, Entrepreneur, Portuguese footwear industry.

**Paper Type** – Research paper.

## **Resumo**

**Objetivo** – O objetivo deste trabalho é entender as características das Pequenas e Médias Empresas (PMEs) para verificar se a Customização em Massa pode ser uma estratégia de crescimento internacional. A investigação procura verificar se as características das PMEs são vantajosas ou não para a implementação da customização em massa como estratégia internacional.

**Desenho/Metodologia/Abordagem** – Este estudo é resultado da abordagem sistemática. Para executar uma investigação exploratória, foram realizadas 19 entrevistas com diferentes intervenientes da indústria de calçado português (fornecedores, produtores e agentes/intermediários).

**Resultados** – Com a literatura e os dados recolhidos, e com base nas características das PMEs, a customização em massa é uma estratégia de internacionalização possível. No entanto, o papel do empreendedor, com base no seu perfil, condiciona fortemente a decisão das PME na escolha pela personalização. O estudo não só responde à nossa pergunta inicial, como também divulga o estado atual das PME portuguesas na indústria do calçado.

**Originalidade/Valor** – Esta investigação permite aos leitores compreender, de forma abrangente, as PME e uma diferente estratégia de internacionalização. Esta investigação propõe conhecimento sobre as vantagens e desvantagens das empresas, sugerindo que elas podem melhorar e crescer internacionalmente com uma estratégia diferente. Acrescenta ainda informações sobre o estado atual das PME portuguesas, especificamente na indústria de calçado.

**Palavras-chave** – PMEs, Customização em massa, Internacionalização das PMEs, Empreendedor, Indústria Portuguesa de Calçado.

**Tipo de trabalho** – Trabalho de pesquisa.

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## 1. Introduction

When discussing international business, Small and Medium Enterprises (SMEs) play an important role because they represent a very large and significant part of the international market share, and are responsible for billions of products and services every day (Stojanova, Suzic and Orcik, 2012).

For SMEs, there are many reasons why internationalizing is not an easy process, there are barriers on many levels. Usually these companies are family run ones, and so, managers lack in terms of vision for their company, they fear the risk of new market environments they are going into; and also due to lack of knowledge (Musteen, Francis and Datta, 2010; Stojanova *et al.*, 2012). Cultural and legal differences scare the entrepreneurs away from taking the next step. Unfortunately, it is not only managerial issues setting back SMEs: the lack of financial, human resources and “owner’s propensity for growth” (Anderson and Ullah, 2014, p. 327) also justify the small investment in new ventures - the condition of smallness affects the company due to behavioural attitudes and understandings of the owners in a circular way (if you think small to avoid problems or drastic changes, your decisions and investments will reflect in an insignificant way and so you will remain small).

Although these setbacks need to be studied and taken in consideration, SMEs have key features that help with their success. According to Stojanova *et al.*, (2012), the flexible structure of the company allows customers integration in the value chain and in co-designing products. SMEs have their strengths in behavioural aspects of the business: “[...] typically, smaller firms are said to have advantages in terms of rapid decision-making, willingness to take risks and flexibility in responding to new market opportunities [...]” (Love and Roper, 2015, p. 29). Anderson and Ullah (2014) believe that companies survive and grow due to the informal flexibility of the management, but also because of the strong sense of autonomy their respective owners have. Due to competitiveness of bigger manufactures, SMEs are also able to explore niche markets where they may have leverage, and explore economies of scope (Anderson and Ullah, 2014).

Mass customization is a business strategy which allows producing at large scales (mass) but still be able to adapt to the customer’s needs (customization). For mass customization to be implemented, flexibility needs to be applied everywhere in the company and continuously, because it is a “never-ending process of adaptation” (Svensson and Barfod, 2002, p. 88) or an “ever-changing settings” (Pine II and Victor, 1993, p. 109). This



continuous investment regards the innovation matters as a key element to success: manufactures cannot try to achieve mass customization, without “radical change” in their information process, the way employees and peers are involved with technology: “The key to success is designing a linkage system that can bring together whatever modules are necessary—instantly, costless, seamlessly, and frictionless.” (Pine II and Victor, 1993, p. 109).

The footwear industry in Portugal plays a significant role in international trade. According to the shared data by APICCAPS, Portuguese Footwear, Components, Leather Goods Manufacturers’ Association<sup>1</sup>, in its publication *Facts and Numbers 2019*, Portuguese companies were responsible for generating 2 billion euros in 2018, producing about 80 million pairs of shoes, turning Portugal into the sixth exporter in the global footwear market. According to APICCAPS publication, The Portuguese production is recognised in the national market but also, international peers look at Portuguese manufacturers as global players. Taking this into consideration, what is important for SMEs to explore and improve within their structure? Is mass customization a way for the Portuguese footwear industry to grow and compete in international markets? **Is mass customization the path for small and medium enterprises to grow internationally?**

The following analysis will begin with a chapter of literature review where characteristics of SMEs and two perspectives of SMEs internationalization will be identified. In the second part of the same chapter we will focus on Mass Customization concept and try to understand it in SMEs reality. In the third, we will explain the methodology of our case analysis. The chosen research method is systematic combining which allows empirical data to grow, along with theoretical evidence, generating new developments on the studied subject. It is an ampler approach, where investigation can evolve continuously in every direction, resulting in broader perspectives (Dubois and Gadde, 2017, 2002). In the fourth the data from the interviews and its discussion will be analysed. This investigation will give insight on the reality of Portuguese SMEs in an important national industry, presented by a different business strategy. Not only, it will be possible to understand if mass customization is a choice for SMEs, but also conclude on inherent SMEs characteristics. The fifth chapter will present conclusions of the study and show the limitations to the present work.

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<sup>1</sup> Associação Portuguesa dos Industriais de Calçado, Componentes, Artigos de Pele e seus Sucedâneos

## **2. Literature Review**

A first part concerning SMEs, will initially explain its characteristics. These features will later on be considered in terms of importance (as advantages or disadvantages) when discussing mass customization. SMEs internationalization will also be taken into consideration, where it will be discussed based on two perspectives: price and networks as competitive advantages. In the second part of the chapter, mass customization concept will be discussed: mainly to understand if this strategy could add value to SMEs business activity. To end this chapter, conclusions on both concepts are going to be put together, to understand mass customization implementation in SMEs.

### **2.1. Small and Medium Enterprises (SMEs)**

Small and Medium Enterprises represent 99.8 per cent of all businesses in Europe, but still, significant attention remains on larger firms (Loecher, 2006, p. 261). As some authors recognized (Kunday and Şengüler, 2015; Liao and Barnes, 2015; Loecher, 2006; Stojanova *et al.*, 2012) SMEs are not only a growing phenomenon, but a changing settings occurrence, because they are competing for demand through differentiation in national, and international markets and exploiting innovation. According to Pula and Berisha (2015), the definition of the concept allows to understand the structure of an industry and monitoring the health of the sector over time. Withal, afterwards, understand the structure and health of the sector, it is essential to understand and clarify SMEs key features, allowing the distinction between larger firms and SMEs.

Small and large firms cannot be seen as polar opposites, because they are not in the same scope and line of objectives. While a large company relies a lot more on contractual relationships, SMEs rely on close human relationships such as networks (Liao and Barnes, 2015). Whereas large companies have a better chance to negotiate with customers and suppliers, face competition and diversify activities (Serrasqueiro and Maças Nunes, 2008), SMEs lack fundamental resources such as knowledge, human capital, investment, informational systems and managerial structures (Cerrato, Crosato, and Depperu, 2016; Liao and Barnes, 2015). They differ in terms of “[...] organizational structures, responses to the environment, managerial styles and [...] the ways they compete with each other firms.” (Man *et al.*, 2002, p. 128/129).

### 2.1.1. Characteristics of Small and Medium Enterprises

In the following paragraphs some characteristics identified by authors which concern SMEs will be presented.

SMEs are not large companies in small scale, so size differentiates companies and, consequently, companies share different features. Serrasqueiro and Maçãs Nunes (2008) analysed Portuguese SMEs and how they are affected by their size and indicate that there is a positive relation between size and performance because bigger firms can easily access economies of scale and use their resources more efficiently; also a negative relation between level of debt and performance, meaning when SMEs have debts, they focus mainly on solving them and not investing in new projects which could enhance their performance; a negative relation between tangible assets and performance, as for companies with intangible assets, they are more likely to innovate which results in better performance and finally, “ [...] decentralization of decision-making in Portuguese SMEs may contribute to improved performance” (Serrasqueiro and Maçãs Nunes, 2008, p. 208). Due to their sizes, SMEs do not have a lot of bargaining power, so they have to rely a lot on personal and close relationships with their suppliers to have access to good quality materials and innovation (Liao and Barnes, 2015). Due to this factors, when internationalizing, smallness affects companies in a negative way because the limited resources constrict companies to take on the internationalization opportunities (Korsakiene and Tvaronavičienė, 2012).

Although size seems to be a liability for SMEs, it can also be seen as an advantage: size is an important aspect to why SMEs plan in a more informal and unstructured way and are more flexible (Kraus, Reiche, and Reschke, 2005; Liao and Barnes, 2015; Serrasqueiro and Maçãs Nunes, 2008; Singh, Garg, and Deshmukh, 2008). Because their size does not require a lot of internal complexity, companies are more focused on the external uncertainty and try to adapt their structure to the needs of external environment with a flexible structure. Meanwhile, a big company, due to its own organization, needs to have a more complex and integrated internal response, and so, be more bureaucratic and planned. By having these structures, they lose some of the flexibility when facing external changes, and so, have more difficulties in adapting to new environments (Kraus *et al.*, 2005, p. 14-15).

### ***Flexibility***

It is recognized as “[...] having the ability to respond faster to changing needs which has significant implications for innovation.” (Liao and Barnes, 2015, p. 1257). Product innovation flexibility “[...] is defined as the ability of a firm to make changes in the product innovation process and efficiently and effectively launch new products in response to changes in the business environment” (Liao and Barnes, 2015, p. 1260). When product-oriented, it can reflect the capacity to change innovative processes into a less costly, and more efficient and effective way. Flexibility can have its impact on customers, products and decision making.

Flexibility is one of the competitive advantages of being a small and medium enterprise, based on unstructured processes and “[...]flat and less bureaucratic than large firms” (Liao and Barnes, 2015, p. 1260), which reflects on a more flexible environment (Singh *et al.*, 2008). Serrasqueiro and Maças Nunes (2008) agree that SMEs ability to adjust and adapt their structures to new situations and opportunities is an important advantage when compared to larger companies. SMEs should try and shape their competitive advantage around “problem-solving competences” (Kraus *et al.*, 2005). This flexibility means high adaptability and quick response to consumers in an intricate environment. (Liao and Barnes, 2015).

In terms of planning and strategic management, SMEs seem to solve problems on a more irregular basis and “intuitive” manner, but: “The suggestion that enterprises that plan strategically are more successful than those who do not would entail that – assuming that SMEs reveal a lower degree of formal strategic planning – big companies are more successful than SMEs. However, this seems to be very unlikely.” (Kraus, Reiche and Reschke, 2005, p. 2/4). According to the authors, formal planning is more applicable to big enterprises which are more bureaucratic “[...] and thus not transferable to the requirements of the fast-moving and flexibly structured SMEs”.

### ***Finances***

The lack of financial resources aggravates other limitations, being considered one of the biggest obstacles (Sallem, Nasir, Nori, and Che Ku Hisam Che Ku Kassim, 2017). Having limited financial resources constricts other assets, for instance: if companies have limited financial support, they could still invest in technological systems for management and

manufacturing; but because of limited financial resources, managers may not be able to train their employees on how to work with the new implemented system; therefore the company investment will not result in improvements of quality and production. Consequently, managers reinforce their believes that technology investments are not efficient, resulting in a circle of limitations. Kozubíková, Dvorský, Cepel and Balcerzak (2017), also noted that SMEs have more difficulties and constrains when trying to get the banks to help their investments.

### ***Technology***

Low levels of information technology systems also determine the SME performance: “All information needs to be computerized to establish a fast and beneficial link with the customers, and the suppliers which can ease the business operations in terms of saving time and costs” (Sallem *et al.*, 2017, p. 48). Managers (especially senior ones) have some apprehensive thoughts towards their usage, and so their companies’ technology is obsolete, only working with a traditional method (Singh *et al.*, 2008). This behaviour is conditioned by the expensive investments and high costs in maintenance which generally requires external assistance (Nguyen, 2009, p. 173), claiming it does not add enough value to the business. The reliance on the managers positive attitude towards technology and knowledge is what can influence informational technology to be implemented (Nguyen, 2009). Information systems usually serve as an enhancer for the companies’ potential as long as the informational technologies are inserted and clear in the company’s strategy, especially by management.

### ***Information Management***

Two of the four problems identified by Sallem, Nasir, Nori and Che Ku Hisam Che Ku Kassim (2017) are lack of accounting and lack of appropriate record keeping. Because SMEs are short in knowledge and have low levels of financial awareness (Kozubíková *et al.*, 2017), they outsource their accounting management and so fail to manage, control and process accounting information. Andersén and Samuelsson (2016), also believe that by internalising accounting information, decision-making will, most likely, be more informed, resulting in a more effective and efficient way of management, based on insightful resources.

### ***Networks***

Collaborations are responsible for sharing products, technology, marketing, knowledge and resources (Singh *et al.*, 2008) and also allow communication among “ [...]”

firms, business partners, vendors, suppliers and customers, in other words, the stakeholders.” (Nguyen, 2009, p. 171). Networks should allow alliances or collaborations so SMEs can overcome their internal structural limits and share innovative knowledge, allowing effective responsiveness and improving suppliers integration (Liao and Barnes, 2015). These relationships have direct impact on the company daily activities, and need to be nurtured in order to keep them active and fruitful, but also for networks to grow as well (Ng and Kee, 2018). The need to encourage networks is due to the fact that SMEs are financially limited, and have to cooperate with others stakeholders to have access to important resources: “Network relationships may overcome the problems of limited resources, experiences, and credibility” (Lin and Lin, 2016, p. 1781) and, for instance, allow better access to technologies (Ng and Kee, 2018). Also, strong networks, especially in terms of suppliers, enhances companies capacity to be flexible (Pollard, Chuo and Lee, 2011).

Although SMEs have more difficulties accessing external resources, when compared to big enterprises, they have a better ability to exploit networks more efficiently (Lin and Lin, 2016). Their networks are not as extended as bigger companies networks, but have a bigger impact. According to Singh *et al.*, (2008) SMEs develop themselves through networks and diversification. Some characteristics shared by SMEs networks are the ability to reduce transaction costs; sharing knowledge, accelerate innovation and improvement; help raise reputation and good imagery and facilitate access to new markets and international ventures (Lin and Lin, 2016).

### **Entrepreneur**

Entrepreneurship is a highlight in the company’s performance and the role of the entrepreneur is necessary to be taken into account when discussing SMEs activities and its management (Kozubíková *et al.*, 2017). Firstly, the entrepreneur usually plays a very important role in the ownership (Loecher, 2006; Man *et al.*, 2002; Pula and Berisha, 2015) and also in business management, because they are responsible for all the decisions and activities in the company (Nguyen, 2009).

Kozubíková *et al.* (2017) tried to identify the characteristics of a “good entrepreneur” taking in consideration gender, age and personal traits. One of the findings was that older individuals are more adverse to risk, aggravated if previous endeavours also failed. As the world population is ageing, the workforce has its own characteristics according to this shift

and it is possible to understand the rise of “[...] the [...] *grey entrepreneur* [...] someone over a certain age who starts or operates a small or medium-sized enterprise” (Weber and Schaper, 2004, p. 152). In this study it is possible to see how, in many developed countries, SMEs owners in 2002 had an average age between 45 and 54 years old, resulting that the majority of entrepreneurs are old, male and autonomous, less energetic and productive, their poorer personal health might also affect their business and they are less likely to have formal educational qualifications which shows less awareness to financial risk (Kozubíková *et al.*, 2017): “[...] a major weakness often inherent in SME management is the absence of top management’s economic knowledge or its over orientation towards technical problem solving without consideration of business problems.” (Kraus, Reiche and Reschke, 2005, p. 2). Nevertheless they have higher levels of technical knowledge (industrial and management wise), enlarged personal networks as a result of formal and informal contacts made through the years and a great extent of experience: “[...] the cumulative body of knowledge, skill, practice and learning that is acquired over an extended period of time” (Gray, 1998) (as cited in Weber and Schaper, 2004, p. 155). The decision-making is usually based on experience and intuition of top management (Kraus *et al.*, 2005).

### ***Human Resources***

Besides the owner/manager relevance, Man *et al.* (2002) also consider workers knowledge, experience and skills as vital characteristics for success. Liao and Barnes (2015) also reflect that employees are flexible resources who can learn and develop knowledge through time, when surrounded by “[...] rich knowledge sharing networks [...]” to improve their ability to adapt to new or problematic situations. Employees play an important role in managing operational processes and finding solutions when involved in projects and fully informed, feeling as a responsible and imperative member of change (Nguyen, 2009).

#### **2.1.2. Small and Medium Enterprises Internationalization**

Internationalization refers to the action of going abroad, expanding geographically businesses into new markets (Matlay, Ruzzier, Hisrich and Antoncic, 2006). Korsakiene and Tvaronavičiene (2012) also consider sporadic activities as part of the internationalization process. As companies are internationalizing due to new and better communication outlets and technologies; liberalization of free trade and quality and product innovation, Marketing Mix (Product, Communication, Distribution and Price) needs to be in constant updating. If

a company is going abroad, marketing mix need to be adequate to the market it is approaching, making sure its offer is accordingly suitable.

In terms of marketing mix, price is a critical issue for international marketing, but also the only international instrument that creates direct revenues. As price setting is fundamental and also difficult for managers, the more accurate companies set their prices, accordingly to the segment, the greater the demand will be: “If the price requested was too low, the firm would cede value created to the customer. If the price was too high, then the quantity sold would be too low.” (Dutta, Zbaracki and Bergen, 2003, p. 626). It is also indicated that price setting might become more flexible if companies invest in resources that add-value. Those same resources need to be balanced in terms of value appropriation: allowing innovation to bring more new products to the market to encourage additional business: “We find that price advantage generally leads to better market performance, supporting both competitive advantage and value creation and capture approaches” (Kaleka and Morgan, 2017, p. 39). Falahat, Ramayah, Soto-Acosta and Lee, (2020) study shows that responding to market intelligence, innovations in product offering and rational pricing, all support a competitive advantage for Malaysian SMEs internationalization, which shows that not only price is important but also product (ratio between price and product quality/innovation).

In some industrial and long-lasting products, price may not be the most important factor, but product quality and reliability (Kaleka and Morgan, 2017). The previous authors approached price with a broader perspective, showing that price is indeed important, but as Dutta *et al.* (2003) and Falahat *et al.* (2020) suggest, there are other factors that support and influence price strategies: “[...] for exporters there is a hierarchy in the market performance outcomes of the achievement of service advantage, price advantage, and—when in balanced combination with service—product advantage in the overseas markets.” (p. 38). Therefore, “product advantage” is having products better than any other competitor, while “service advantage” is having “[...] intangible elements (activities, processes, and initiatives) developed around physical goods to facilitate their acquisition, delivery, and use.” (Kaleka and Morgan, 2017, p. 29). The latter is seen as a complement to the quality product itself. Therefore, price, product and service advantage build the competitive advantage for international markets, because it increases “customers willingness to buy”. As Duchessi and Chengalur-Smith (2008) cited in Kaleka and Morgan (2017, p. 32) express, after these three



conditions meet, companies need to be able to respond to orders, having products available and capacity to fastly deliver orders: “Customers—distributors and end users—expecting to obtain value from buying the product are likely to find that this value becomes greater if the product can be quickly delivered at short notice if competing products cannot”. To maintain and increase a companies activity outside national borders, Kaleka and Morgan (2017) also indicate that there needs to be a consistent and seamless relationship with distributors to assure consumers are also receiving a good service from them, and so increasing the probability of new orders placement: “Rather, they should view competitive products as a necessary but insufficient condition for success and work with their overseas distributors to develop and nurture balanced product–service combinations or solutions for end customer needs” (p. 40). In the end, companies will only be able to capture market value and have a good performance, if consumers perceive their offers as valuable turning it into a competitive advantage. Regarding marketing mix, this perspective shows how product, promotion and price all come together to increase companies’ competitive advantages. Companies must have the appropriate marketing mix for each market, which implies having the suitable and rightful resources.

One of the strategic assets that researchers (Matlay *et al.*, 2006; Lee *et al.*, 2012) believe to be important for internationalization is the intangible asset. Rare and inimitable resources can help build valuable strategies. What Lee *et al.*, (2012) claim to be essential for a successful international venture of a SME is the focus on knowledge, research and development (intangible assets) and external relationships. External relationships are a positive aspect, not only because they represent credibility but also because important and projecting players within the alliance might help build a respectable image of the new incomer (Lee *et al.*, 2012). Networks permit access to resources that it would be harder to obtain or to build on an international venture. Musteen *et al.*, (2010) recognizes the importance of networks when internationalizing, and the potential benefits that can arise, but also warns about the lack of information quality which could be obtained from network peers due to overreliance. Usually, SMEs rely on the personal, trustable and strong relations to internationalize (Musteen *et al.*, 2010), but although it increases the manager’s confidence, it may not give enough access to important information. There are also some natural barriers to the process, because SMEs management and experiences might be limited. When comparing to bigger and older companies, SMEs might also be in disadvantage because they do not have extended contacts or networks.

The need to have price/quality ratio according to the market, but also to add value to products or services is indeed important. External relationships, such as networks, should be an enhancer to the internationalization process. Partners within the network are sources of market knowledge and a way of getting their companies known by potential partners and clients. However, SMEs have more local and redundant networks, which do not ease the process. As Kaleka and Morgan (2017) mentioned, to assure future order placements, companies need to guarantee they are supplying and delivering to the customer rightly, with a good and fast service. Mass customization can be a strategy that takes advantage of this feature: price importance; product quality; networks relevance in sharing product innovation and knowledge and also, elevating service for customers.

## **2.2. Mass Customization**

Mass customization is a business strategy that allows costumers integration in product designing (Stojanova *et al.*, 2012). It is a process of “continuous improvement” (Pine II and Victor, 1993), where there could be different levels of customization or standardization in operational manufacture processes, resulting in different available catalogues (Lampel and Mintzberg, 1996).

According to McCarthy (2004, p. 347): “Mass customization is a strategy that seeks to exploit the need for greater product variety and individualisation in markets”. It is not a process where you customize products by hand in an unstructured way anymore, which results in Pine II and Victor, (1993, p. 109) considering it a “distinct and unfamiliar way of doing business”. Instead of having the orders placed and producing it, companies await to know the demand and only then produce it: “In mass customization approach, products are just built after the company has the orders in hand with the exact quantity and quality required” (Pollard, Chuo and Lee, 2011, p. 77).

The main challenge is to implement new manufacturing and operational strategies, which allows to deliver a personalized product, agreeing with the customer’s specifications, without losing extra time or money when compared to a standard product (Pine II and Victor, 1993): “The capability to manufacture a relatively high volume of product options for a relatively large market (or collection of niche markets) that demands customization, without trade-offs in cost, delivery and quality.” (McCarthy, 2004, p. 348). So to say, the goal is to deliver mass production just like it happened after the industrial revolution, while delivering personalized products just like before the industrial revolution: the trend is not of

pure customization, it is to standardize processes capable of delivering customized products (Lampel and Mintzberg, 1996; Pollard *et al.*, 2011). This strategy involves connexion between informational and manufacture technologies (Da Silveira, Borenstein and Fogliatto, 2001) to ensure information flows smoothly within the company and with external partners (Pollard *et al.*, 2011). In this process companies are not only looking to deliver to the customer what they asked for in short time, but also to be able to improve quality and price. As a result, an intensive integration of the company is required in order to be able to connect and respond fast.

According to several authors (Hart, 1995; Kay, 1993; Kotha, 1995; Ross, 1996; Joneja and Lee, 1998) (as cited in Da Silveira *et al.*, 2001, p. 2), mass customization is possible because of the development and flexibility of manufacturing and informational systems; due to increased demand for customized products, the shorter lifecycles and increase of industrial competition that has threaten many large companies and businesses. The cited authors include the information technology as a means to transfer information through the internal and external networks, along with the organizational structures and flexibility as part of the mass customization definition. Pollard *et al.* (2011, p. 78-79) also agrees with the mentioned authors that one of the key elements of mass customization success is the “flexible manufacture process”, in which the authors believe that having modular products could help in flexing and easing the process. Also, the importance of a strong and responsive supply chain and skilful human resources, where quality is standardized, but options are diverse. So what companies would want to achieve with a mass customization system is personalized products within a standardized and structured process which allows normal costs, lead-time and quality such as standard production systems would deliver.

Pollard *et al.* (2011) studies what is crucial for mass customization to work, underlying the key elements of a successful strategy and exemplifies it with the car and computer industry. Here, he shows how mass customization can be positive for some industries (computer industry), but also, negative for others (car industry). The computer industry example is a successful case of mass customization due to physical closeness to suppliers, which allows fast responses; use of integrated information technological systems with suppliers which allows them to see what materials the producers need and also reduces stocked materials, because every purchase is on demand by consumers. Consequently, there are also no finished products stocked. Also, there is a direct channel of communication

between the producer and the consumer, where there is no information and knowledge lost. The example of the car industry in the United States of America, shows how having an intermediary (dealers in between consumers and car makers) challenges producer's capacity to adapt to consumers preferences: information and communication is not being made between consumer and producer, but consumer and intermediary. Also mentioned, was the large financial investment and the need for physical space to storage modules.

### **2.3. Conclusions of the literature review**

Taking the previous analysis into consideration, table 1 will allow to latter on compare theoretical data and collected data from the interviews, letting us disclose our final conclusions on each subject. The goal is to conclude if SMEs characteristics are an advantage or a disadvantage in mass customization implementation (3rd column): understand if SMEs characteristics are enablers or disablers of a mass customized system. To do so, both literatures on SMEs and on mass customization will be taken in consideration.

Small and medium enterprises face several challenges due to its characteristics. Smaller companies need to be able to go for smaller niches that are not interesting for big enterprises. However, this would imply higher production costs (production on a smaller scale) and need for greater market knowledge (to respond appropriately to each specificity). Therefore, smaller companies may have great difficulties in entering foreign markets, not being able to obtain competitive advantage due to costs and differentiation. Mass customization can help overcome these two problems, as companies do not have to produce many large-scale versions to achieve economies of scale. What they need to do is produce large volumes of different parts (which is much less effort than a large amount of the final product). What companies are trying to achieve is diversity of production parts (allowed by flexibility), which can later on be used to "build" customers' orders – "build-to-order" (McCarthy, 2004; Pollard *et al.*, 2011).

<b>SME Characteristic</b> (*internationalization approach)	<b>Literature Review on SMEs</b>	 <b>Advantage or disadvantage?</b>	<b>Mass Customization</b>
Size	A liability	Disadvantage	(New) manufacturing/operational strategies  Development and flexibility of manufacturer  Growth of informational technologies/systems  Strategy of internationalization: product variety and individualization
Flexibility	Competitive advantage of SMEs	Advantage	
Finances	One of the biggest obstacles	Disadvantage	
Technology	Low levels of information technology systems	Disadvantage	
Information Management	Lack of accounting and lack of appropriate record keeping	Disadvantage	
Networks	Responsible for sharing products, technology, marketing, knowledge and resources	Advantage	
Entrepreneur	The decision-making is usually based on the experience and intuition of the top management	Disadvantage	
Human Resources	Workers knowledge, experience and skills as vital characteristics for success	Advantage	
Significance of price*	Price/quality and added value	Advantage	
Networks*	Opportunity to meet new grounds	Advantage	

**Table 1 - Literature review: SMEs, Internationalization and Mass Customization**

Based on the literature review, we can now interpret it into some propositions for the empirical research. Analysing the contents presented in table 1, the challenges reside on the fact that literature demonstrates how size can be a liability meaning SMEs performance might be constricted by its smallness, and so presented as a disadvantage for mass customization implementation. As Serrasqueiro and Maçãs Nunes (2008) indicated, bigger companies have a better ability to access economies of scale, and mass customization demands a system where there are no extra losses or trade-offs (Pine II and Victor, 1993).

In terms of flexibility, we can consider it the most interesting characteristic regarding this business plan. SMEs competitive advantage is flexibility, and mass customization demands for flexible structures and manufacturers. We may even consider flexibility as the most important feature of SMEs, which firstly motivated this investigation. One of the challenges of mass customization is that it needs to be in constant development and responsive to constant changes (Da Silveira *et al.*, 2001; Pine II and Victor, 1993; Svensson and Barfod, 2002). One of the main characteristics shared by SMEs and is needed in a customized system is flexibility: “As today’s firms’ face a number of trends such as outsourcing and mass customization, they are forced to find flexible ways to respond to uncertainty and meet customer demand effectively and efficiently. This is especially true of small-and-medium-size enterprises (SMEs) which often depends upon the ability to adapt quickly to customer needs as a means of survival.” (Liao and Barnes, 2015, p. 1257). This characteristic should be explored so companies can, not only, keep up with nowadays trend, respond to market demand, and adapt to what customers are looking for (Stojanova *et al.*, 2012), while efficiently use their resources.

As finances were presented as the biggest obstacle, it is possible to also have a negative effect on a new strategy: because there are investments required, companies might not have the financial possibility to do so. The same goes in terms of technology: literature regarding this matter showed how SMEs have low informational systems, and how managers are averse to technology. Because mass customization demands for informational technologies, this might be a limitation for successful ventures. As for information management, authors believe that SMEs strategic business decision to externalize means they are losing power over their information. And as mass customization demands for growth of informational systems, which monitors that information, it might be counterproductive having it managed outside. Networks were considered as an advantage because they

represent mutual help and shared knowledge. They can also represent an opportunity for new products, innovation, resources and markets. Along with strong human resources, who are problem-solving oriented, it can be considered as an enhancer because both could share their knowledge and experience to new solutions and better answers to implementation of mass customization. The entrepreneur might be a challenge, due to the definition of *grey entrepreneurs* who are less likely to involve themselves in risky operations (such as the implementation of a new business strategy). Their decision-making, based on experience and intuition might limit mass customization implementation.

In terms of internationalization, price and networks are seen as advantages. More than that, both aspects are means to augment this business strategy. As companies need to add value to their products, mass customization could be a way of increasing products value. Also, networks could be a way to internationalize and enter new markets, with this strategy.

Price in marketing mix along with the role of networks for internationalization can suggest mass customization strategy. As Kaleka and Morgan (2017) mentioned, price even might become secondary if quality and reliability are strong. This strategy could actually increase SMEs profit margins if associated with a good service and quality. Networks could enhance this opportunity, since they are a source of innovation, credibility and resources to reach new grounds and also important to assure and provide good service.

As far as literature review presented, although mass customization is a possible strategy for SMEs (due to previously explained characteristics), it may be challenging: half of the studied characteristics are presented as disadvantageous. But, since the initial question focuses on internationalization and both studied international aspects were seen as advantageous, it leads us to believe that mass customization could be a solution for SMEs to enter new markets. Because mass customization requires characteristics that are unique and common for SMEs, it could be a differentiating strategy from bigger companies, which allows smaller companies to exploit and project their distinctive advantages.

### **3. Methodology**

This investigation took an exploratory approach, allowing to fulfil gaps in literature regarding the industry, but also, on both concepts studied: SMEs and Mass Customization. The goal is to understand the subject in the clearest way possible and choosing the best method for the investigation. Accordingly, the existent literature on the matter was considered and also real testimony of people who have actual knowledge on the matters at hand.

#### **3.1. Method: Systematic Combining**

In this study method case, the research process is determined by systematic combining. Systematic combining is a non-linear and unusual conceptualization of the investigation process (Dubois and Gadde, 2017). The investigation is an on-going relation between the theoretical frame and the empirical results collected through the investigation: “Systematic combining is a process where theoretical framework, empirical fieldwork, and case analysis evolve simultaneously, and it is particularly useful for development of new theories.” (Dubois and Gadde, 2002, p. 554). With this method, researchers believe, that by going “back and forth”/”direction and redirection” a more complete and comprehensive perspective of the investigation subject will be able to be constructed (Dubois and Gadde, 2002) which could even expand the initial proposed framework.

In this study, the preconceived categories are the characteristics identified by the authors (in the section *Characteristics of SMEs*). One of the goals is to confirm and complete those categories, but also understand if there are more important categories to be added throughout the investigation: “ [...]i.e., to discover new dimensions of the research problem.” (Dubois and Gadde, 2002, p. 556). The interviews carried out to SMEs managers have the goal to obtain passive data, but also active data (new and unexpected observations) to allow the investigation to generate new questions in the following interviews (Dubois and Gadde, 2002, p. 557). During the course of the first interviews, price of the manufactured goods appeared as a new considerable aspect of many interviews in terms of internationalization and so it was added to the theoretical frame. As the interviews followed, ratio price/quality also seemed important, while still pinpointing other factors for successful internationalizations. Also age of the interviewees seemed to follow a pattern, which led to more investigation in terms of the entrepreneur’s role and profile.



Although this method is criticised because it is considered as very interpretative and “ [...] lacks the formalized and standardized rules that normally are associated with scientific methodology. “ (Dubois and Gadde, 2017, p. 267), it could represent a more accurate and transparent contribution to the scientific community allowing new perspectives and better understanding of the Portuguese SMEs and the relation with the mass customization phenomenon. To contradict this critical aspect of the method, this investigation took into consideration the qualification and quantification of the data: not only was what was said taken into appreciation, but also how many interviewees agreed or shared the same opinion.

In this investigation and in order to analyse the collected data, the transcriptions were scanned with NVivo software, allowing the mapping of the previous categories, but also the new added ones. This approach allows us to have not only a qualitative approach (taking into consideration the reasoning and the importance given) but also a quantitative approach (a comparative analysis of the number of times an idea was expressed or mentioned).

### **3.2. The case**

For this investigation, it was decided to study Portuguese footwear industry. For many years, Portuguese footwear manufacturers have developed their knowledge and technology in order to answer to new market demands. This investigation takes place, while the industry is rebranding, and presenting itself to the world as “The sexiest industry in Europe”<sup>2</sup>. In northern Portugal, it is possible to find different clusters, which are mostly directing their production to external markets.

#### **3.2.1. Selection criteria: unit of analysis**

There is a lot of ambiguity worldwide when it comes to defining SMEs and the right terminology. For the European Union it is important to have a common definition, because members belong to the same market and need to “[...] improve their consistency and effectiveness [...]” (Pula and Berisha, 2015, p. 23). One of the criteria to define SMEs is the number of employees in the business (quantitative approach) and is one of the most appreciated criteria in general understanding. But international institutions, academics and policymakers all agree that it is important to complete the employee criteria with a financial

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<sup>2</sup> APICCAPS - Associação Portuguesa dos Industriais de Calçado, Componentes, Artigos de Pele e seus Sucedâneos

aspect to understand the scale and performance of the company (Pula and Berisha, 2015, p. 18).

Because the study intends to analyse the Portuguese footwear industry, and Portugal is a member state of the European Union, one of the criteria of selection in this study is to interview manufactures with the number of employees between minimum 10 people and maximum 250 people. To have a more comprehensive understanding of the business and the proposed strategy, other companies who work directly with SMEs and belong to the industry were also interviewed (such as intermediaries and suppliers, also from micro-small-medium sized companies that have extended knowledge of Portuguese SMEs due to their commercial activities). Research has shown us that networks and supply chain have a large impact on the daily activities (Liao and Barnes, 2015; Ng and Kee, 2018; Singh *et al.*, 2008). In this study, it will be an important selection criterion to choose companies that are part of the value chain and have regular relations with manufacturing SMEs. This decision comes as result of the first interviews with producers of the final manufactured goods, where the importance of having a network of suppliers equally ready to work within the mass customization needs was mentioned – active data (Dubois and Gadde, 2002). It also seemed scientific valuable to interview clients/intermediaries who commercialize the final product, due to their insight from both sides: the consumer and market trends, and also about characteristics of Portuguese SMEs that are appreciated when comparing to other international markets.

When exploring the qualitative approach, Pula and Berisha (2015) agree with Loecher (2006) that “personal principle” and “unity of leadership and capital” are also fundamental to analyse the definition of SMEs. The “personal” criteria relates to the fact that the manager is the central piece of the business (Pula and Berisha, 2015) and represents all the decision making (Loecher, 2006). The second criteria mentioned above, “unity of leadership and capital”, represents a manager who is also the owner, therefore has the property and manages it (Pula and Berisha, 2015). With these settings, not only does the manager have the leadership duties, but also has the liability of risk of every strategic action taken by the company. This study intends to interview owners of SMEs and/or people who manage the daily operations of the firms and/or have impact in the decision-making of the company, which resulted in most interviews being done with the manager-proprietor (Loecher, 2006).

Consequently, 19 semi-structured interviews were carried out amongst the industry in the Portuguese footwear sector. 18 out of 19 interviews were carried out in Portuguese, except for one with an international client. All interviews were written down and afterwards analysed with NVivo software. Table 2 presents the 19 interviewees, including the ones who preferred not to share their identities. As the interviews progressed, some characteristics could be identified as common to the interviewed companies and interviewees: small and medium enterprises owned and managed by men, with an average age around 40-60 years old. Out of the 19 interviews: 5 were suppliers, 4 were clients/intermediaries and 10 were producers of the final good (footwear producers). Another common characteristic was that most interviewees seem to accumulate at least more than one role in the companies' structure. Most of them are owners and managers (Pula and Berisha, 2015), who have impact or saying in the company's commercial activity and, as indicated in some interviews, are also involved in production solutions. Seemingly, owners and managers are 'lone wolfs', who proudly have power over every strategic decision-making:

"[...] the biggest criticisms I can make is the fact that there is no corporate spirit in companies. There is no clear and exact definition of what each person does, the function of a general director in relation to an owner, or an owner to an administrator: is it a general manager or is it everything?" (Rui Oliveira).

**Table 2 - Interviewees ID**

<b>Enterprise Name</b>	<b>Interviewee Name</b>	<b>Interview Age</b>	<b>Role in the company</b>	<b>Supplier Footwear Producer Client/Intermediary</b>
Apple of Eden	Nélson Gomes	42 years old	Manager and Owner	Client/Intermediary
ASM - Indústria e Comércio Internacional, S.A	Fernando Martins	58 years old	Manager and Owner	Supplier
ATSO – Unipessoal Lda.	António Trindade	56 years old	Manager, Owner and Commercial Director	Client/Intermediary

Bolflex - A. Ferreira e Pereira, Lda.	António Ferreira	56 years old	Manager and Owner	Supplier
Brasa Fábrica de Calçado, Lda.	Luís Macedo (co-answered with daughter, Liliana Macedo)	52 years old	Manager and Owner	Footwear Producer
Cramarinhos - Fábrica de Calçado Lda.	Abel Monteiro	53 years old	Manager and Owner	Footwear Producer
Pintos e Soares S.A.	Daniel Pinto	41 years old	Manager and Owner	Footwear Producer
Fábrica de Calçado DURA, Lda.	Agostinho Marques (co-answered with son, Agostinho José Marques)	60 years old	Manager and Owner	Footwear Producer
Euroflex - Componentes para Calçado, Lda.	Mauro Vaz	31 years old	Manager and Commercial director	Supplier
Felgui – Indústria e Comércio de Calçado, Lda.	Ilídio Ferreira	55 years old	Manager and Owner	Footwear producer
Marina, Calçados S.A	Mauro Costa	53 years old	Manager, Owner and Commercial Director	Footwear producer
Wortmann	Matthias Tilleke	38 years old	Manager of local sourcing	Client/Intermediary
Mazoni – Indústria de Calçado S.A	Fernando Sampaio	65 years old	Manager and Owner	Footwear producer

Pinho Gomes & Pinho, Lda.	Sérgio Miguel	42 years old	Commercial Director	Supplier
Rilix - Indústria de Calçado Lda.	Luís Mendes	55 years old	Manager and Owner	Footwear producer
Calçado Samba S.A	Rui Oliveira	36 years old	Commercial Director and Manager	Footwear producer
Vapsol – Fábrica de componentes para Calçado, Lda.	Décio Pereira	31 years old	Manager, Owner and Commercial Director	Supplier
Company A	Mr. X	48 years old	Manager	Footwear producer
Company B	Mr. Y	60 years old	Production manager and quality control	Client/Intermediary

### 3.2.2. Data collection and analysis

As literature was analysed, the script for the interviews was also designed. Because the chosen method suggests passive data, but also active data, it was important to keep the script of the interviews open. Meaning, the interviews were semi-structured, allowing the study of categories previously studied (passive data), but also, study of new and unexpected phenomena (active data).

Most of the interviews were done in person, with some throw video calls (due to the pandemic). All of them were audio recorded with two different devices, to later on, allow the transcription and interpretation of the collected data. The 19 interviews were done during the period of 7<sup>th</sup> of March 2020 until 2<sup>nd</sup> of June 2020. During this period and as the data was being collected, the interviews were being transcribed and analysed with NVivo.

With the software, data was codified in the following categories: *Size*, *Technology*, *Finances*, *Human Resources*, *Information Management*, *Networks*, *Entrepreneur* (with a sub category called *Age*), *Flexibility* (with a sub category called *Planning and Executing Flexibility*), *Mass Customization* (with two sub categories: *As a Second Strategy* and *Level of Customization*) and *Internationalization* (with sub categories called *Networks* and *Price*). The sub categories were

considered as active data, which led to more investigation. Not as a studied category, but as a mean for future reference, it was also codified *COVID-19 mention*.

The information was categorized according to the content and answers shared by participants. The analysis took into consideration the content of the interviews: mostly the explanation and/or justification interviewees shared on each question asked. Content analysis was the first focus, to be able to understand each subject asked more deeply. Not only did it serve as an answer to questions from the defined script, but it also allowed the investigation to grow and include other issues. Afterwards, it was taken into consideration how many times each idea was discussed or defended by participants. This quantitative approach serves the investigation as a complement which gives indication of relative importance and enriches the exploratory approach.

#### 4. Results

In the following chapter, data collected throughout the interviews is presented and discussed according to the initial question. In the first section, quantitative data is presented, elevating the relative importance interviewees gave to each questioned subject. In a second section, the reasoning behind the answers is discussed.

##### 4.1. Analysis of the collected data

The results obtained in the interviews present passive data (the studied categories found during the analysis of the literature review) and active data (new and unpredicted concept/ideas that were collected during the course of the interviews) (Dubois and Gadde, 2002). Although we do not consider neither passive nor active data, it is important to indicate that most interviews were carried out during the pandemic of Covid-19, and we believe it might have affected some answers during the interviews: resulting in 13 interviewees mentioning the pandemic, and 6 not mentioning it. It is also important to note, that half of the interviews where Covid-19 was not mentioned, happened before the pandemic started in Portugal. All of the presented relative numbers are accessible in table 3, with absolute data.

**Table 3 - Quantification of the answers**

Question asked	Answers		
	Yes	No	No opinion shared on the matter
Size	2	12	5
Flexibility	17	0	2
Flexible Planning and Executing	14	0	5
Finances	9	7	<b>Null (neither an advantage nor a disadvantage)</b> 3
Technology	13	4	2

Information Management	<b>Internal Management</b> 9	<b>External Management</b> 7	3
Entrepreneur	6	10	3
Human Resources	15	0	4
Networks	16	0	3
Networks for internationalization	10	4	5
Price	9	8	2
Mass Customization	4	15	0
Mass Customization for microenterprises or subsector of SMEs	<b>Mentioned</b> 14	<b>Not mentioned</b> 5	
Levels of customization “allowing the consumer to customize from a basic model”	<b>Possible</b> 9+2 (referred as same from scratch)	<b>Not Possible</b> 4	4

When asked if size was a liability, as it was presented in the literature review, 63% disagreed, while 11% considered size a limitation. 26% of the interviewees did not share an opinion on the matter.

In terms of flexibility, there were two different questions asked. The first one (passive data) was if the interviewees considered SMEs as flexible. There was no negative answer to this question, although 11% did not share their opinion on the matter, resulting in 89% answering positively. The second question arose as the interviews were carried out (active data). The first participants suggested that flexible planning and executing was a distinctive and competitive advantage for SMEs. And so, this perspective was included in the research



and on the interviews. Therefore, when asked if flexible planning and executing was a distinctive and competitive advantage for SMEs, 74% responded positively and 26% did not share any opinion on the matter (none of the interviewees disagreed).

Also considered in this investigation was if financial resources were the biggest limitation of a SME. When asked, 47% of the participants answered “yes” and 37% answered “no”. In this question there were no “no opinion shared on the matter”, but instead, 16% of the participants answered “null” (neither an advantage nor a disadvantage).

As technology was also considered in the literature review, it was asked if SMEs are using technology to help managing their productive and managerial activities: 68% answered positively, 21% answered negatively and 11% did not share their opinion on the matter.

In terms of information management, we asked if SMEs were outsourcing their information management or if they were managing it internally: 47% said that they were managing it internally, 37% answered that they had it externally managed, and 16% did not have an opinion on the matter. This classification (“Internal Management” and “External Management”) is the result of understanding Portuguese SMEs’ reality: for example, none of the companies in the investigation have formal accounting inside the company, they all have external assistance, but the classification refers to the level of external help they hire (this matter will latter on be explained in *Discussion*).

As it was recognized in the literature review, the entrepreneur plays an important role in the SMEs activity. But the goal of this investigation was to understand if the entrepreneur experience is a central factor for decision-making in SMEs: 32% answered “yes”, 53% answered “no” and 16% did not share their opinion. As the interviews were carried out, a standard profile could be seen: male, the average age of the interviewees situated approximately around 48 years old and therefore it became another aspect concerning this investigation (active data).

It was also inquired about the role of collaborators in the company and if they were an important asset. The results showed no negative answers, 79% agreed that human resources are a valuable asset for the company and 21% did not share an opinion on the matter.

When asked if networks are beneficial for SMEs activity, 84% answered networks were beneficial, none disagreed with the statement and 16% did not share their view on the

matter. Still discussing networks, it was asked if they are also beneficial when SMEs want to internationalize: 53% considered they were helpful, 21% disagreed and 26% did not have an opinion on the matter.

In the first interviews, when internationalization was being discussed, price started to be suggested by some interviewees as the most important aspect for SMEs internationalization – active data. So we then asked, if price was the competitive aspect for SMEs internationalization. The answers reflected on 47% considering it the most important factor, 42% disagreed and indicated other competitive advantages along with price and 11% did not share their opinion on the matter.

Focusing on the mass customization strategy, the first question asked was if they would consider implementing the strategy. The results showed that 21% responded it was possible (4/5 suppliers) and 79% answered negatively. Most of the interviewees who answered negatively, did not say it was impossible to implement the strategy, but, they would not do it. One idea that was raised during the investigation was that some (74%) indicated this strategy possible for a microenterprise or as a subsector of the SME; 26% did not mention neither possibility. It was also asked whether the level of shoe customization would interfere on the opinion of the strategy being possible or not. When presented with the options “allowing the consumer to customize from scratch” or “allowing the consumer to customize from a basic model, permitting accessories such as laces, engravings, lasers, ...”, none of the owners and or managers answered that it was possible “allowing the consumer to customize from scratch”: 47% believed it was possible from a basic model; 11% of the interviewees believe that both levels of customization were the same; 21% still considered it impossible and 21% did not share their opinion on the matter. This means 58% considering it to be possible and only 21% considering it not to be possible.

## **4.2. Discussion**

In the following paragraphs, the qualitative results obtained in the interviews will be discussed. It will also be compared to data presented in the Literature Review. The goal is to understand if empirical data from the exploratory research confirms or adds perspectives to the literature review.

Starting with the first mentioned characteristic: size was presented in the literature review, mostly, as a liability. Serrasqueiro and Maças Nunes (2008) showed us that the bigger

the size the better the performance; Liao and Barnes (2015) that size conditions the bargaining power of SMEs and how size limits different resources (Kraus *et al.*, 2005). In the collected data, an interviewee also indicated how bigger firms have more credibility and power in national political settings:

“[...] but large companies are always more protected, more covered, due to their size, the number of people they employ, the volume of business, the impact they have at the national level. So, whether we like it or not, a big company is always a big company and it is always treated differently, it has another weight.” (Fernando Sampaio).

But according to the data collected in the interviews, approximately 60% believed that size was not a liability. Portuguese economy is mainly composed by SMEs and it reflects a sense of “what the market demands”. Interviewees explained how size also allows flexible structures, reflecting on how smaller companies are able to be more flexible. Bigger enterprises are not able to respond faster and easily to market changes, but smaller ones can, due to their flexible nature. The same way Love and Roper (2015) suggested, the interviewees indicated that size is not only a liability, but actually an advantage because it allows more control of the company, more immediate communication and faster responses to problems:

“[...] you have more control, it depends more on the people closest to you. Partners and managers are closer to situations, to purchases, to sales, to production, [...] to quality.” (Abel Monteiro).

In terms of flexibility, the data confirms the literature review and shows with 17 positive answers out of 19, how and why flexibility is important. In the participants' perspective, SMEs less bureaucratic structure is also a result of their size. As today's market demands for fast responses, flexibility is a needed characteristic, “a survival matter”. Fast adaptability is also built because of the vast list of clients (rather than bigger companies who have a smaller list of clients) and, in one case, due to internalization of a lot of different activities around shoe making. As we saw in literature review, many authors refer to this characteristics and show us how SMEs are able to respond quicker and adapt easier (Liao and Barnes, 2015; Love and Roper, 2015), how less bureaucracy helps building a more flexible environment (Singh *et al.*, 2008) and how they are better at adjusting to new demands and particularities from the market (Serrasqueiro and Maças Nunes, 2008). As Anderson and

Ullah (2014) also showed management informality is also another key point for the flexible structure itself and that interviewees have also shared:

“We are on top of everything, we can more easily decide. Almost in a minute: we think and it is decided.” (Abel Monteiro).

Although flexibility emerges almost as a natural characteristic of SMEs, one client/intermediary alerted that while Portuguese SMEs are chosen because of their flexible capacity, they are also questioning their own flexibility by reducing stocks. Many interviewees indicated that reducing stocks is a common goal within the industry, but the client/intermediary suggested that by reducing stocks they are damaging their flexible and quick response to market needs.

In terms of flexible planning and executing, interviewees were repetitively indicating how quick and easy it is to, in a matter of weeks, receive an order, produce and deliver it to the client’s destination:

“We have this ability to develop ideas in a very few days: we look at a shoe today; tomorrow we are doing another similar one; we are buying raw materials, after 8 or 10 days, it is going out in production to be dispatched to the client.” (Abel Monteiro).

This specific side of flexibility has mostly to do with fast responsiveness. Shorter and almost daily planning’s, closeness to the European market, flexible structures which allow change of production easily and a strong and physically close network allows this specific flexibility. As Kraus *et al.* (2005), Liao and Barnes (2015) and Serrasqueiro and Maçãs Nunes (2008) suggested, the capacity to change productive processes in a less costly and more efficient way is an advantage of SMEs, especially when compared to bigger companies.

When reviewing literature on SMEs finances, Sallem *et al.* (2017) classified financial resources as one of the biggest limitations, because it constricted any other resources and Kraus *et al.* (2005) also indicated how SMEs have more difficulties accessing credit. According to the data collected in the 19 interviews, in Portuguese SMEs reality, it does not seem to be such a clear and obvious characteristic: 47% believed it was, and 37% disagreed. The ones who agreed with the authors also defend that having financial stability is very important but very difficult, which than narrows access to credit lines which are usually too inflexible. The lack of money to invest puts companies “back to square one”:

“[...] a large company has easier access to credit, due to its size and the impact that closing down could have. So there is always a more careful look when a large company knocks on the door of a bank or a financial institution and says "I need this because if I do not have this support this will happen"”. (Fernando Sampaio).

Not only quantity supports a more neutral position about finances being the biggest limitation, but also the effect that Covid-19 pandemic could have had in some of the answers. In some interviews it is clear to understand how the pandemic affected their reply to the matter:

“And that is what we are suffering at the moment.” (Mr. X).

On the contrary to what Kozubíková *et al.* (2017) suggested in their study, 7 interviewees answered that financial resources were not the biggest limitation, they defended credit was accessible and possible for SMEs if they have a strategy and are not only focused on the short term. If companies are focused on growing prospects and on investments for future gains, it is not that hard to access it:

“[...] I would say people who do not have such vision, who are much more focused on what is the immediate result and do not think about the future of the company. And then I ask myself “but why finance it?”” (Fernando Martins).

Some interviewees also mentioned how SMEs have different channels for financial support (state funding, bank investments, and SMEs excellence awards). One aspect that some participants also proposed was that credit access has a lot to do with the “credibility” of the company and its “history”. In some cases it was even referred that the fact that companies are not “new”, have a lot of years in the business and have already given proof they are safe and trustworthy to access credit. So it is possible that financial limitations have more to do with newness, rather than smallness.

Also mentioned by some participants was the lack of strategic planning. In the interviews it was shared how lack of planning lets companies without any goal, diminishing their probability of success:

“[...] companies often lack a guiding line in terms of strategy. And this is also one of the big mistakes in the industry, because when I really decide that my market is A, B or C; what is the type of product I want and that I am able to enter that market, we have to bet on

these markets. We cannot go one year to one side, the next year to the other, then to the other... I mean, when there is no strategy, things do not work.” (António Trindade).

Literature suggested that in some cases, because of the entrepreneur apprehensive attitude and large investments required, technology is not abundant in SMEs. But the data collected suggests how SMEs structures are very well equipped with both productive and also managerial technology, with 63% of the interviewees supporting a positive attitude towards technological investments, contradicting Singh *et al.* (2008) beliefs that SMEs managers are not pro technology investments. It was recognized how valuable technology is and how impossible it would be to “go back to paper”; how technology allows a circuit system between information and production and how technology allows flexibility, quality and productivity and so becomes indispensable for SMEs’ activity. Also, during the course of the interviews, it was said how the Felgueiras cluster is well equipped with software systems and machinery. But it was also mentioned that the footwear industry, in terms of productive technology, does not demand new technology every year as other industries might require, relying a lot on human labour:

“Technologies also appear in the footwear industry, but not that many. Because it still is a manufactured product, a product that works with natural materials that need to be touched and humanly handled” (Luís Mendes).

The perception that the Portuguese footwear industry does not require a lot of technological investment, because it is very human labour intense and there are not a lot of technologies being developed worth investing in, can also be a result of the *grey entrepreneurs* lack of energy. It could also elaborate the idea that change is somehow very risky, and so entrepreneurs prefer to stay the same, and not invest or adjust.

Moreover, it was also discussed how technology investments also help companies build a more attractive and impressive image which helps selling their products: technology used as a “business card”. Although there was an important number of technology invested SMEs, there was also 21% who showed poor technology investments with very limited usage (because of the costs and investments required - Nguyen, 2009) and also no software connection between management and production. Because of the previous perception on how the footwear industry does not require brand new technologies every year and how old

machinery still suffices the market needs, SMEs seem to invest more on non-productive technologies, the ones which mainly assist management activities.

In terms of information management, literature presented how SMEs externally advocate this information and lose control of their management (Andersén and Samuelsson, 2016; Sallem *et al.*, 2017). The reality showed a very clear understanding: none of the interviewed SMEs had total internal management – which required having statutory auditors, chartered accountants, economists, and etcetera. As the interviews proceeded, it was clear to understand the differences between companies which, for instance had economists, and managed most accounting information, only using external help for technical and official support in documentation; and companies which require external help for technical and official support in documentation but also managing the information. For the first perspective, it was considered as internal management, and the second one defined as external management. With similar quantitative results to the financial question, the answer to this matter was also much divided. Companies which chose to internally manage their information believe that it is possible to have more immediate and rigorous access to information. These companies believe that outsourcing their accounting information management, for instance, results in an “abdication of power” and external helpers do not have the total view of the business, giving a very incomplete answer to the company’s needs. One downside mentioned by SMEs was that companies which have internal management do not have different and “outside the box” opinions on the business, only relying on inside perspectives:

“It is obvious that having accounting outside would not make us very comfortable, but certainly that person, office or company, would probably have a broader range of ideas or perspectives.” (Daniel Pinto); “Because when the whole strategy is done in here, we can risk hearing little from someone outside or other opinions. And so, we are more closed in our world, whereas if we had outside agents where we could guide ourselves or ask for opinions, evidently it could help us in some ways” (Fernando Sampaio).

SMEs which prefer external information management believe there is no loss of decision power because they still have access to that information in order to decide: referred as collaboration between both companies allowing a full picture needed for strategic decision-making. Another perspective in the matter referred to the fact that companies’ management wants to be more invested in more important parts of the business:

“If I were to be wasting time on the accounting side, it is logical that I would spend more than 50% of my time focusing on that and would be wasting time on other areas that are much more important.” (Ilídio Ferreira); “Our concern as managers of the company is always looking at 2 months from now, in the immediate future, and in the medium-term future, 2 types of thinking. [...] while accounting is limited to dealing with what has already happened there is nothing to do [...]. Our concern is always more forward-looking.” (Agostinho Marques).

Another reason for external help is that size of the company and dimension of the business does not entail for internal management. Furthermore, it allows counselling in other areas that are always changing such as labour laws, human resources, Safety and Hygiene at the workplace, etcetera.

When discussing the role of the entrepreneur and how experience affected decision-making, some interviewees referred to experience as the key element for decision-making (Kraus *et al.*, 2005), how years of experience allow better understandings of the managing process, how the entrepreneur is a central element in daily and strategic decisions letting the entrepreneur have a prominent role inside the company:

“[...] but I speak due to experience and knowledge of the footwear industry: it is a non-scientific sector [...]. And there are people who have a lot of experience to answer to that” Mr. X; “The words of experienced old people are worth gold. [...] They are not worth gold, I think there are words and advice that have no value, they are so important at that decisive time, and I speak from my experience, too.” (António Ferreira).

More than half of the interviewees answered “not only”: experience was mentioned as an important factor, but it cannot be the only way of deciding. It is also important to add new tools and technologies; new and younger ways of thinking; better communicating skills and formal education in managing, competences, products and materials. New generations follow up and allow new perspectives and innovation, depending less on only one person, allowing the “corporate” structure to work – a balance between experience and knowledge.

And as we interviewed some participants, a pattern was starting to arise; the footwear industry has a lot of older experienced people, with a lot of technical knowledge who were very important in the beginning of the industry. Some interviews even recognized how they have lost some energy in business:



“[...] no patience. The problem is that there is less patience for problems, and for problems that are not problems and become problems.” (Mauro Costa).

And the pattern we started to identify reflects the definition proposed by Weber and Schaper (2004) of the *grey entrepreneur*: old (interviewees average age is 48 years old), male, less energetic, less likely to have formal education, higher levels of technical industrial knowledge (in two interviews it was explained how younger generations were managing, while older generations were in production control), large networks and decision-making based on experience. And also, from the information in table 2, in the 4<sup>th</sup> column, entrepreneurs seem to have direct impact and power in determining decision-making in every aspect of the company (Nguyen, 2009).

When discussing human resources, a great number of answers showed how collaborators are indispensable assets for the company because they are considered flexible and polyvalent, who add value to the business. The footwear industry is human labour intense, and no matter how good and updated technology is, it does not eliminate human value. During the course of the interviews, participants discussed how important it is to have integrated human resources in the business strategy (Nguyen, 2009) because only then they become flexible assets and “problem solvers” mainly due to the accumulated knowledge and experience (Liao and Barnes, 2015). It was also elevated how important it is to invest in continuity and formation, which helps to create a sense of “family” and “team”, mentioned numerous times:

“Without people there are no companies.” (Fernando Martins).

Networks were also questioned in the interviews. As Liao and Barnes (2015), Nguyen, (2009) and Singh *et al.* (2008) presented in their studies and as the participants shared their knowledge, networks are considered important for solving problems more efficiently; they allow direct and easy communication; it is possible to share innovation and information and it keeps everyone connected and updated especially in an industry where there are a lot of components (especially enhancing the significance of suppliers). Close relationships and physical closeness (cluster) also allow the network to grow (Ng and Kee, 2018) allowing players to see each other as partners. This relationship also allows quality service, fast responsiveness and helps to surpass its own limitations (Liao and Barnes, 2015; Lin and Lin, 2016).

When discussing networks for internationalization, approximately 50% of the interviews showed how networks could help internationalization, as a first approach, because of the knowledge and especially, the information and contacts that can be shared. The informality and closeness of relationships reflect on natural actions such as recommendation. Because some partners are already international, by reaching out to them, it will give them a head start instead of starting new with no credibility or perceived image (Lee *et al.*, 2012). However, the ones who believed that networks were not enhancers of SMEs internationalization, shared the same thoughts as Musteen *et al.* (2010): overreliance means depending and trusting a lot on information shared by a partner, relying a lot on the human side of the relationship instead of the business side.

As internationalization was debated, interviewees suggested some advantages, such as the competitive advantage to answer to niche markets (Anderson and Ullah, 2014), answer the needs of smaller and more diversified orders (due to high flexibility) and so the ability to respond and support fast trends and fashion with added-value. These advantages reinforce the idea of how mass customization can be a possible internationalization strategy. In terms of disadvantages, enterprises believe to be behind competitively, because some countries are able to respond with good quality to market needs with lower prices (less regulation and lower prices for human labour when compared to Portugal).

As price appeared as active data of this research, the opinions shared on the matter seem to be much divided. The ones who support price as the competitive differentiator for internationalization mentioned the unfair trade in terms of production costs for different countries. They believe the biggest challenge is to compete with eastern European and Asian countries, because setting prices is more and more difficult. Although all referred to price as crucial, they still mentioned the need for good product quality and service (Falahat *et al.*, 2020). The ones, who believe price is not crucial, suggested that in saturated markets of a common product, price is important for first approach to catch people's attention:

“Price is always the first approach, always, in everything [...] first you [client] are already served [...] how can I sell you something? Right from the start, it has to be cheaper than everyone else so we can start talking [...] to have room to talk. So yes, price is always important in a first approach. Then, as you are already my client, I sell you this product for 30 euros, but you will see that I deliver better than the others, my product has a typified lining, the material is better, the finishes' are more beautiful, the presentation in store is

better. [Subsequently] I am going to say exactly the opposite of what I said before: when someone reaches the market with this product and while I am selling it at 30, they can sell it to you for 29, or 28. You will not want it, because the price is no longer important, what used to be, in the same market philosophy, ceases to be because you tested a product, tested a company, tested a supplier, and got a good delivery date, worked with someone who did not cheat, did not send you a pig in a poke and so on, and business grew. So, the person will not change from you. That is the difference in the market.” (Luís Mendes)

As this interviewee detailed, the added-value, service, trust between partners, the relationships, fast response to orders and leading times, company’s image and facilities, sustainable productions, etcetera are as important as price. As Kaleka and Morgan (2017) explained, when service advantage, price advantage and product advantage meet, companies have competitive advantage. This also includes being able to respond to new orders within fast timings. As previously analysed, SMEs have that advantage, due to flexible plans and executing (“putting an order at the clients doorstep in 3 weeks”). As the authors and interviewees mentioned intangibility of the service reflects on initiatives and activities around footwear which increases the possibility of present and future acquisitions (clients loyalty). Participants explained how taking part of a supply chain does not end when their product is out of their facilities, but instead how it involves many partners and good performances from everybody, as Kaleka and Morgan (2017) also suggested:

“People often think about the business until it leaves their door, but business is much more than that. Business will continue to exist until the end of the business process, which is when the person used the shoe for 2 or 3 years and was happy with its purchase. And it took 3 years to complete a shoe process: from creation, to development, to modeling, components, making, selling at the factory, going to the distributor, from the distributor to the stores, from the stores to the final consumer. And the final consumer has to be happy with it and become a loyal client. The producer only has work if he ensures that this happens.” (Nélson Gomes).

This is how interviewees believed SMEs features to be more accurate. They present both challenges and opportunities to companies’ activity. Taking them into consideration, it is possible to suggest how size can be an advantage for mass customization activity, because it allows diversity at small scales; once again, flexibility as the key feature for mass customization implementation; finances, along with a strategy, showed how can turn out not

to be a problem; how technologically developed companies are indicating higher chances of technological conditions for the strategy; how networks are able to support customization especially in terms of suppliers importance and internationalization, and how price, service and quality can result in a strategic internationalization opportunity. Human resources also surfaced as an opportunity for companies activity, helping adaptability. The main disadvantage so far presented is the role of the entrepreneur, which seems to delay decisions of change and investment.

After debating SMEs, their characteristics and its internationalization, it was discussed whether or not mass customization would be an implementable strategy. In terms of internationalization, it was presented how added value arises as an important feature: price is no longer the only factor determining whether customers are buying or not. For a company to enter new markets and to conquer new grounds, it needs to invest in a strategy that allows other competitive advantages, when comparing to other players in the market. Mass customization can be a differentiating strategy, which allows service and quality to be very important, based on flexibility within the company. Following that, mass customization implementation was analysed. It was during the course of the first interviews that including other players of the supply chain would become a necessity (Da Silveira *et al.*, 2001):

“And then you have to force others, your suppliers, to have that ability that you have, to provide leathers, soles ...” (Abel Monteiro).

The ones who answered positively to mass customization implementation were all suppliers. Since their product is intermediary in the value chain and would not require specific customization, they believed it was an interesting strategy because price would become secondary. Although they would support this strategy, they believed it would be hard to implement and to strive of due to higher costs in production. The Covid-19 pandemic was also mentioned, because some interviewees believe it will change consumers' ways of buying, increasing online consumerism even in an industry where they believed viewing and physically touching the product was desired. It was also presented how consumer want to be more involved in the design and definition of the products they are buying (Stojanova *et al.*, 2012). For the 4 suppliers who suggested mass customization a possibility, their only request was to order minimal quantities of the product:

“[...] they [producers of the final product] always have to ask me for the minimum quantity and then they have to make their own stock. [...] They have to ask for 120 colour/pairs: if they want yellow and pink they have to ask for 120 pairs of yellow and 120 pairs of pink, and they have to organize and store them at the company. For me, anything over 120 pairs, regardless of the colour is possible.” (Décio Pereira).

According to Pollard *et al* (2011), physical closeness to suppliers and integration of suppliers in the productive informational systems is a feature for success. The following statements, respectively, reflect those characteristics of the Portuguese shoe industry:

“[...] for the shoe cluster that has almost a constant warehouse, 24 hours a day, providing the information and products for the company to work on. If we put this company in Montemor-o-Velho or Nazaré, we are not talking about the same timings, we are talking about completely different things” (Rui Oliveira); “[...] we currently have a finished platform, online, in which you enter our website and go to the reserved area, there is an area called “My VP”. And what is this? It is a platform where customers can enter and get to see their whole life with Vapsol: all orders that are currently placed, if they are already in injection, if they are already finished, if they are already packed, if it was already shipped, what the given budget was. They manage to have their whole life there, an immediate answer” (Décio Pereira).

For the majority who answered negatively to this strategy (producers and clients), they believe it would be very hard to implement due to very high costs and investments, large inventories and more waste (Pollard *et al.*, 2011). Also, in terms of stocks, many suggested how their goal is to reduce stocks, and this strategy would require exactly the opposite: increasing stocks of raw materials and investing a lot of money on stocks that could not be demanded (causing waste of products and money). But Pollard *et al.*, (2011) suggested precisely the contrary on how companies are able to reduce stocked materials due to product on demand. But the disagreement between authors and interviews arises from the fact that Pollard *et al.* (2011) contemplates an already integrated chain, where suppliers and producers are connected and receive information at the same time. Reality still shows a very different panorama. Besides, work and time required for this strategy it is not the same as the standard production, it would mean high price of the product, production breaks and losing their economies of scale:

“[...] that would be unbearable [...] a factory like this has certain costs for sewing, cutting and assembly; if this factory does not assemble 850 pairs a day, it loses money every day, depending on the people it has and the costs it has. Now imagine that this production in the seam, instead of making 500 pairs a day, it only makes 100 pairs; in the assembly, instead of 850 pairs it only makes 350 pairs, because it made 10 pairs of this, 5 of that, 5 of another. There are so many dead times in this group of people that the shoe would have a price for labour force, of instead of 10 euros per pair, it would have to be 50 euros. Then, when I put the materials in it, it would cost 100 euros, here at the factory. So it would be practically unaffordable.” (Fernando Sampaio).

Other questions that surfaced when discussing customization strategy was: “Is there enough market for this?” The participants believed this to be directed towards a very small and niche market, and today’s reality of the footwear industry in Felgueiras is much more industrialized:

“The industry can sell the idea, which is a very good one to sell, of handmade shoes and craftsmen, but in reality, things do not happen that way. This does not happen, nor are there people doing this anymore.” (Agostinho José Marques).

Also elevated was the need to keep relationships between producers and consumers intermediated. But, according to Pollard *et al.* (2011), mass customization strategy works better when there is a direct communication channel between the producer and the end-user:

“The producer needs to have this kind of intermediary people to do this kind of work and get the shoes to the final customer.” (Ilídio Ferreira)

An unexpected idea that participants started to share during the interviews was how this would work for micro or small companies (following the previous idea that SMEs from the footwear industry in Felgueiras are too industrialized) and also for subsectors within the company, as a second strategy. But having a company focusing only on this type of production would be hard to implement. As Pollard *et al.* (2011) and Lampel and Mintzberg (1996) indicated mass customization does not represent handcraft, on the contrary, companies should find standardized processes and productive systems which allow personalization. But, in order to have this type of production system, participants believe there needs to be some level of product standardization which permits small changes (and

less changing production costs) in the production system, allowing customization from a standardized model:

“[...] when we talk about mass production, we usually talk about what is the essence of construction: what is the shape, what is the sole ... things that do not alter the production process and the productive profitability too much. Then everything that is accessory, everything depends on the person's ability to add value to an accessory that will not interfere with the productive part, it may require more people to customize, but these are always operations that are not very technical or very specific, which will only add value.” (Luís Mendes).

It is important to note how most of the interviewees did see mass customization as possible, but not as a personal choice. The negative answer might be affected by the need for investment and change and also influenced by the entrepreneur's profile. The lack of energy and opposition to risk taking of *grey entrepreneurs* suggested in the literature can be a reason to explain why mass customization is not an option. Entrepreneurs preponderant role in companies decision-making along with those characteristics results in them saying, it is possible and interesting, but not for them. This idea is also supported by the fact that when asked if customization from a 'basic model' was possible, only 21% said no and 58% said it could be possible.

### **4.3. Synthesis**

Although literature showed us some characteristics as possible advantages or disadvantages, collected data and its analysis has shown a different reality for Portuguese SMEs of the footwear industry. Based on table 1 and the data collected, the conclusions show different views on some propositions previously made.

Studying SMEs characteristics and starting with size, literature showed how smallness affects SMEs performance negatively. But for the footwear industry, it was showed how size was not a disadvantage. On the contrary, owners and or managers explained how size is adapted to national economy and international market demands. Being 'not big' does not disclose a disadvantage because large enterprises and SMEs have different characteristics and goals. Besides, they also explained how being a SME, in terms of size, affects flexibility in a positive way. The smaller, lighter and not bureaucratic structure helps building flexible structures and processes allowing adaptability and fast responsiveness.

In terms of finances and because responses were much divided, we may conclude that financial stability might be a challenge for every company (especially in present times). Being small or medium does not mean, inevitably, limited resources. What may affect more is the fact that companies do not seem to have a strategy or a plan. For those companies, it may be more difficult in terms of financial stability and resources. When accessing credit, newness is more disadvantageous than smallness.

In terms of technology, in Portuguese footwear SMEs, literature does not reflect reality. Although technology for the footwear industry is, according to participants, somewhat limited, it remains updated and a concern for most interviewees. As, in some cases, it was possible to visit the interviewed companies and witness technological investments. Resulting in the conclusion that technology around SMEs activity is developed and updated.

As for information management, taking in consideration the mentioned classification of internal and external management, reality also contradicted literature: more interviewed SMEs were managing information indoors, allowing more controlled management. The ones who managed externally that might share Sallem *et al.* (2017) preoccupations, still believed to be a strategic and manageable decision, not affecting decision-making.

Because the footwear industry depends on a lot of components and relationships are physically (cluster) and emotionally (familiarity) close, they are treasured for the value chain activity. Collected data seemed to confirm the idea that networks allow innovation, knowledge and product development.

In terms of entrepreneurship, although experience is still very valued and used for decision-making and strategic decisions, more than half of the interviewees revealed how they believe in and practice new forms of management, which includes knowledge and innovation generated by younger generations. This shows how they are worried about their own role in the company and the future of SMEs. By understanding their profile as *grey entrepreneurs*, they are allowing younger ones to follow up with new and better tools. Studying the role of the entrepreneur allowed us to see connected perspectives. Their inertia and lack of energy could also be affecting decisions of change or investment. This can be reflected on them saying implemented technology within their companies is enough, and on the refusal of mass customization strategy: indicating it is an interesting one, “but not for them”. Lastly, data collected on human resources seems to be very close to theoretical data which elevates



collaborators role as problem solvers and flexible assets, considered ‘the being’ of every company.

Furthermore, the collected data on internationalization showed both sides of networking consequences. As data reviewed, networks may not always be fully informed, and so SMEs should invest more in the business internationalization rather than relationship internationalization. But it was also presented how networks could help SMEs internationalize and enter new markets with better credibility due to close relations. Collected data revealed a more positive tendency towards the benefits of networking to enter new markets. Due to the chosen theoretical model, price was added through the course of the empirical analysis. Although quantitative results showed a very close answer to price being the competitive differentiator for internationalization, it allows us to see it from a different perspective. Taking into consideration the reasoning from both answers, while price is important, adding value to your strategy may allow Portuguese SMEs to differentiate themselves in other markets with better service, quality at a reasonable price due to flexible structures and flexible planning and execution.

When analysing mass customization data, it was clear to understand how companies are not interested in investing in this strategy and how entrepreneurs are actually resisting the business model. This can be justified by the investments and changes needed in order for it to function, but also because managers and owners do not see interest in the strategy, in the short-medium term. It would be a very small niche market not interesting for the clusters capacity. Because of the profile presented by Weber and Schaper (2004), it may also reflect the entrepreneur’s apprehension of taking risks, due to age and lack of energy. As a solution for this strategy, they indicated how micro businesses, ateliers or even subsectors of SMEs can work within this strategy, but with a low number of orders, because mass production did not appear to be a possible option. Finally, more than half of the interviewees considered modular parts of personalized footwear to be closer to SMEs productive reality: interviewees revealed how it is a possible and doable strategy.

This empirical approach allowed us to first reanalyse and reconsider SMEs. Doing an exploratory study of SMEs state showed us how SMEs characteristics are not as literature indicated. When considering literature, we identified 5 disadvantages for mass customization (table 1). But the empirical investigation concluded that only entrepreneurs could be seen as a disadvantage for mass customization implementation. The study established how the other

4 disadvantages (size, finances, technology and information management) were actually advantages.

## 5. Conclusions

The question to begin with, was if mass customization is the path for SMEs to grow internationally. According to the previous literature review analysis, authors have discussed what companies need to implement and change in order to achieve mass customization in SMEs (Da Silveira *et al.*, 2001; Lampel and Mintzberg, 1996; McCarthy, 2004; Pine II and Victor, 1993; Stojanova *et al.*, 2012; Svensson and Barfod, 2002). To answer the core question of this investigation, the exploratory study was based on the Portuguese footwear industry.

Considering the chosen method for this investigation, systematic combining, it is important to explain the dynamic of this investigation. As the method suggests, it is part of the investigation to direct and redirect its focus, to be able to consider phenomena that was not measured in the beginning of the study. Following that, the content of the investigation does not follow the chronological way it was studied, but the coherent way to understand it.

Bearing in mind that both concepts were previously studied, we tried to identify characteristics, which are not exclusive of SMEs, but are important for mass customization implementation. Literature review focused on size, flexibility, finances, technology, information management, networks, entrepreneur and human resources. Literature showed how size was a limitation because it does not allow SMEs to take advantage of economies of scale and how it limits other resources. In terms of flexibility, it showed how it was a distinctive advantageous characteristic. When discussing finances, more specifically, investment and credit, SMEs have more difficulties accessing it, limiting access to other important resources. Technology was presented as disadvantageous, explaining how SMEs are out-dated, namely in information systems and technological method. As for information management, due to limited resources and knowledge, smaller companies end up not managing that information and losing power over it, making less informed management decisions. Focusing on networks, it was presented how important they are and also how much impact they have on the companies activity, namely due to close relationships. They are responsible for sharing knowledge, innovation and technologies. Following the same thought, human resources are also advantageous for SMEs activity because they are considered as problem-solvers which brings growth and development. Finally, literature explained how entrepreneurs are important in SMEs activity and decision-making. The *grey entrepreneur* profile surfaced as both positive and negative for SMEs.

As the study grew, specifically the empirical part, considering networks and price for SMEs internationalization turned to be expected. Price was presented as an important aspect of SMEs internationalization, and literature explained how price is crucial, but also very challenging. A way to soften this importance is by adding value to the product with an activity or service associated to price. SMEs can use that mechanism to ease price significance. A way of achieving that can be through networks, which are also a meaning of good imagery in international platforms. International networks have two polar perspectives: relying on close relationships can be negative and harm internationalization; but they can also be favourable if they are a helping mechanism to share knowledge and good impressions of the new incomer. Literature indicated a more positive impact of networks in internationalization. As networks bring more information, leading to a better knowledge of the potential buyer, offer can be more personalized. To obtain this personalized offer without escalating costs (and consequently reflecting in prices), mass customization could be a good option.

When analysing mass customization, it was understood how the goal is to deliver a personalized product, through process standardization which leads to customization. Literature indicated for that to happen, it is necessary to invest in technologies, to manage information and to have a flexibility structure. The importance of good and supportive networks to answer rapidly, namely suppliers is also studied. Relating all ten studied SMEs characteristics with mass customization (table 1), we believe literature indicates five advantages and other five disadvantages of SMEs in mass customization implementation. This shows some challenges in implementing mass customization, but as the goal of this study is to understand if it is a possible international strategy, we believe literature suggests mass customization as possible as both studied international features are advantages.

Empirical data confirmed the literature proposition that mass customization is a possibility for SMEs to internationalize. But the justifications given through literature are different from the information that the revised analysis shows. Regarding the ten characteristics explored in literature, only entrepreneurship turned out to be a disadvantage in the empirical research. Participants confirmed that flexibility, human resources and networks were advantages; but also considered size as an actual advantage; finances are only a challenge if companies are new and if there is no strategy; technology is updated and a preoccupation in SMEs, which contradicts literature; in managing information and according to the study classification, both internal and external options do not seem to impose a liability

in managing SMEs; and finally, the empirical research confirmed both internationalization matters to be advantages. As previously stated, the entrepreneur appeared as a limitation due to its own profile. This limitation was confirmed when mass customization matters were discussed: although participants invalidated the strategy, they confirmed it to be possible and interesting. Modular customization suggestion during the exploratory study shows how entrepreneurs believe mass customization is an option and possible to implement, but, due to the entrepreneur's relevance on the deciding process, personally they prefer to maintain their present strategy (if existent). The reasoning shows that it is not due to lack of capacity or interest in the strategy, it is because entrepreneurs are within Weber and Schaper (2004) profile of *grey entrepreneurs* which are not prone to invest in change and risk.

And so, to answer our initial question: is mass customization the path for SMEs to grow internationally? Practically, entrepreneurship revealed to be the main barrier to implementation. And as said before, although the study shows, with evidence, how mass customization is possible for SMEs, the entrepreneur and its profile conditions the strategy. Mass customization is a possible strategy for SMEs internationalization, with a key limitation this study identifies: management and its profile. This is not a specific problem of SMEs and can be overcome by succession (family or not) and not be a barrier in new projects.

A close strategy is happening due to market demand: shorter and repetitive orders are being placed, demanding from the footwear industry to have a flexible, fast and responsive answer to answer customer's needs, similarly to what mass customization demands. This shows how SMEs are ready to take on mass customization business strategy. As an interviewed client of the value chain confirmed:

“My brand is one of the biggest Portuguese brands and we place orders almost exclusively, because our collection is very extensive: we have about 300 shoes in each collection and some shoes sell 30 pairs or 10 pairs. I have to manufacture these shoes. Worldwide we will have 8 people with these shoes. There is already some exclusivity.” (Nélson Gomes).

In order to grow internationally, the Portuguese footwear industry should focus on improving their service, product and price quality and be able to have a quick response. The idea shared by many interviewees combined with Kaleka and Morgan (2017): having the products with quality, service and price at a client's doorstep in the minimum amount of time

needed. This allows SMEs to grow internationally, focusing on different markets and different demands from large enterprises, answering niche markets, such as fast trends and 'fashion-ready'. This answer to the market is one that big companies cannot give, and where SMEs can differentiate themselves because they have the structures and capabilities to do so.

This research has contributed in diverse ways. Firstly, it added more literature on SMEs. It clarifies and contradicts some existent literature, which may not be up to date. Secondly, it studies a phenomenon that has not been considered in the national panorama: it studies mass customization in the Portuguese footwear industry. The study also suggests ways of improving SMEs activity internationally. As discussed, smaller companies do not have the ability to deliver the same as bigger companies, so they should take in their advantages and catapult them. This study shows mass customization as an option for SMEs, where networks and services could help to grow internationally. One of the conclusions of the study falls in the profile of *grey entrepreneurs*. That could have major impact for management and understanding its future. There is a clear contribution in the decision-making process in SMEs and how entrepreneurs impact it. This study identifies it as a barrier in decision-making of the Portuguese industry. It is necessary to evaluate and improve it, in order to answer better to market needs.

Looking back, at the choices made for this investigation, there are some aspects that could have been included and discussed. There were ten characteristics of SMEs that were studied and then evaluated in terms of mass customization implementation. If more features were analysed, a more comprehensive image of SMEs would be shown, resulting in a better understanding of SMEs and mass customization. Although the number of interviews is considerable, if more interviews had been done, specifically, matching the numbers of suppliers and customers/intermediaries interviews to the number of producers interviewed, with an even number of interviews per participant of the value chain, we could have more information and create a more complete view on the issue.

As SMEs were identified during the course of the interviews, it is clear to understand how the study focused on SMEs with many years of activity. This could represent a limitation of the research: because the studied companies are older, we could be profiling SMEs a certain way, when this characteristics, namely the profile of the entrepreneur, mostly concerns older companies rather than SMEs in general. But this study proves that SMEs,

namely in Portuguese footwear industry, are mainly mature. For future research, it would be challenging to clarify this idea and see if newer/younger SMEs have the same limitations.

The suggested idea that there is a trend of smaller and more repetitive orders being placed could have been more explored during the course of the interviews. With that insight, it would have been possible to compare that trend to mass customization and add a more precise level of customization that Portuguese SMEs are able to work with. Another aspect to the present work worth more investigation would be the level of modularity possible for SMEs, specifically in the footwear industry. If that feature had been added, it would be possible to have a better understanding and to be more precise in terms of the best business strategy for Portuguese SME.

In terms of future research, the analysis focused only on the Portuguese footwear cluster (Felgueiras). For future investigation it would be interesting to explore other Portuguese clusters and understand if the outcomes are similar or not. In this investigation, only one industry was considered, which happens to be much manufactured. It would be interesting to find out if other industries might differentiate from footwear: doing a comparative study, the same way Pollard *et al.* (2011) did with the car and computer industry. Although we would suggest a comparison of two industries with different levels of technology, to understand the impact of 4.0 technology vs. manufacture in mass customization.

Taking into consideration the fact that entrepreneurs surfaced as a very important aspect of SMEs activity, it would be challenging for future research to understand its role in the national panorama regarding SMEs: understanding the profile and how it impacts on decision-making within companies. It would be challenging to see how companies adapted their management with newer generations in command. Because *grey entrepreneur* will leave the company at some point, it would be scientifically interesting to understand where companies stand, if they changed, if there are new managing methods or if companies remain the same and if decision-making is still very centralized on one person.

As the investigation unveiled, SMEs have great capabilities to answer market needs. And as the consumer importance grows throughout the entire process, mass customization needs to be well thought and considered. With the information obtained in this dissertation, it is relevant to think about the decision-making process and management.

## References

- Andersén, J., and Samuelsson, J. (2016). Resource organization and firm performance: How entrepreneurial orientation and management accounting influence the profitability of growing and non-growing SMEs. *International Journal of Entrepreneurial Behaviour and Research*, 22(4), 466–484. <https://doi.org/10.1108/IJEER-11-2015-0250>
- Anderson, A. R., and Ullah, F. (2014). The condition of smallness: How what it means to be small deters firms from getting bigger. *Management Decision*, 52(2), 326–349. <https://doi.org/10.1108/MD-10-2012-0734>
- Cerrato, D., Crosato, L., and Depperu, D. (2016). Archetypes of SME internationalization: A configurational approach. *International Business Review*, 25(1), 286–295. <https://doi.org/10.1016/j.ibusrev.2015.05.010>
- Da Silveira, G., Borenstein, D., and Fogliatto, F. S. (2001). Mass customization: Literature review and research directions. *International Journal of Production Economics*, 72(1), 1–13. [https://doi.org/10.1016/S0925-5273\(00\)00079-7](https://doi.org/10.1016/S0925-5273(00)00079-7)
- Dubois, A., and Gadde, L.-E. (2017). “Systematic Combining”: An approach to case research. *Journal of Global Scholars of Marketing Science*, 27(4), 258–269. <https://doi.org/10.1080/21639159.2017.1360145>
- Dubois, A., and Gadde, L. E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research*, 55(7), 553–560. [https://doi.org/10.1016/S0148-2963\(00\)00195-8](https://doi.org/10.1016/S0148-2963(00)00195-8)
- Dutta, S., Zbaracki, M. J., and Bergen, M. (2003). Pricing process as a capability: A resource-based perspective. *Strategic Management Journal*, 24(7), 615–630. <https://doi.org/10.1002/smj.323>
- Falahat, M., Ramayah, T., Soto-Acosta, P., and Lee, Y. Y. (2020). SMEs internationalization: The role of product innovation, market intelligence, pricing and marketing communication capabilities as drivers of SMEs’ international performance. *Technological Forecasting and Social Change*, 152, 119908. <https://doi.org/10.1016/j.techfore.2020.119908>
- Kaleka, A., and Morgan, N. A. (2017). Which competitive advantage (s)? Competitive advantage-market performance relationships in international markets. *Journal of*



- International Marketing*, 25(4), 25–49. <https://doi.org/10.1509/jim.16.0058>
- Korsakiene, R., and Tvaronavičiene, M. (2012). The internationalization of SMEs: An integrative approach. *Journal of Business Economics and Management*, 13(2), 294–307. <https://doi.org/10.3846/16111699.2011.620138>
- Kozubíková, L., Dvorský, J., Cepel, M., and Balcerzak, A. P. (2017). Important characteristics of an entrepreneur in relation to risk taking: Czech Republic case study. *Journal of International Studies*, 10(3), 220–233. <https://doi.org/10.14254/2071-8330.2017/10-3/16>
- Kraus, S., Reiche, B. S., and Reschke, C. H. (2005). The role of strategic planning in SMEs: Literature review and implications. *Conference Proceedings of the Annual Meeting of the British Academy of Management, Oxford, UK*, (May), 1–21.
- Kunday, Ö., and Şengüler, E. P. (2015). A Study on Factors Affecting the Internationalization Process of Small and Medium Enterprises (SMEs). *Procedia - Social and Behavioral Sciences*, 195, 972–981. <https://doi.org/10.1016/j.sbspro.2015.06.363>
- Lampel, J., and Mintzberg, H. (1996). Customizing Customization. *Sloan Management Review*, 38(1), 21–30.
- Lee, H., Kelley, D., Lee, J., and Lee, S. (2012). SME survival: The impact of internationalization, technology resources, and alliances. *Journal of Small Business Management*, 50(1), 1–19. <https://doi.org/10.1111/j.1540-627X.2011.00341.x>
- Liao, Y., and Barnes, J. (2015). Knowledge acquisition and product innovation flexibility in SMEs. *Business Process Management Journal*, 21(6), 1257–1278. <https://doi.org/10.1108/BPMJ-05-2014-0039>
- Lin, F. J., and Lin, Y. H. (2016). The effect of network relationship on the performance of SMEs. *Journal of Business Research*, 69(5), 1780–1784. <https://doi.org/10.1016/j.jbusres.2015.10.055>
- Loecher, U. (2000). Small and enterprises - delimitation and the European definition in the area of industrial business. *European Business Review*, 12(5), 261–264. <https://doi.org/10.1108/09555340010373537>
- Love, J. H., and Roper, S. (2015). SME innovation, exporting and growth: A review of

- existing evidence. *International Small Business Journal: Researching Entrepreneurship*, 33(1), 28–48. <https://doi.org/10.1177/0266242614550190>
- Man, T. W. Y., Lau, T., and Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17(2), 123–142. [https://doi.org/10.1016/S0883-9026\(00\)00058-6](https://doi.org/10.1016/S0883-9026(00)00058-6)
- Matlay, H., Ruzzier, M., Hisrich, R. D., and Antoncic, B. (2006). SME internationalization research: Past, present, and future. *Journal of Small Business and Enterprise Development*, 13(4), 476–497. <https://doi.org/10.1108/14626000610705705>
- McCarthy, I. P. (2004). Special issue editorial: The what, why and how of mass customization. *Production Planning and Control*, 15(4), 347–351. <https://doi.org/10.1080/0953728042000238854>
- Musteen, M., Francis, J., and Datta, D. K. (2010). The influence of international networks on internationalization speed and performance: A study of Czech SMEs. *Journal of World Business*, 45(3), 197–205. <https://doi.org/10.1016/j.jwb.2009.12.003>
- Ng, H. S., and Kee, D. M. H. (2018). The core competence of successful owner-managed SMEs. *Management Decision*, 56(1), 252–272. <https://doi.org/10.1108/MD-12-2016-0877>
- Nguyen, T. U. H. (2009). Information technology adoption in SMEs: An integrated framework. *International Journal of Entrepreneurial Behaviour and Research*, 15(2), 162–186. <https://doi.org/10.1108/13552550910944566>
- Pine II, B., and Victor, B. (1993). Making mass customization work. *Harvard Business Review*, 71(5), 108–117 .
- Pollard, D., Chuo, S., and Lee, B. (2011). Strategies For Mass Customization. *Journal of Business & Economics Research (JBER)*, 6(7), 77–86. <https://doi.org/10.19030/jber.v6i7.2447>
- Pula, J. S., and Berisha, G. (2015). Defining Small and Medium Enterprises : a critical review. *Academic Journal of Business, Administration, Law and Social Science*, 1(1), 16–28. <https://doi.org/ISSN 2410-3918>
- Sallem, N. R. M., Nasir, N. E. M., Nori, W. M. N. W., and Che Ku Hisam Che Ku Kassim.

- (2017). Small and Medium Enterprises: Critical Problems and Possible Solutions. *International Business Management*, 11(1), 47–52. <https://doi.org/10.3923/ibm.2017.47.52>
- Serrasqueiro, Z. S., and Maças Nunes, P. (2008). Performance and size: Empirical evidence from Portuguese SMEs. *Small Business Economics*, 31(2), 195–217. <https://doi.org/10.1007/s11187-007-9092-8>
- Singh, R. K., Garg, S. K., and Deshmukh, S. G. (2008). Strategy development by SMEs for competitiveness: A review. *Benchmarking: An International Journal*, 15(5), 525–547. <https://doi.org/10.1108/14635770810903132>
- Stojanova, T., Suzic, N., and Orcik, A. (2012). Implementation of Mass Customization Tools in Small and Medium Enterprises. *International Journal of Industrial Engineering and Management*, 3(4), 253–260.
- Svensson, C., and Barfod, A. (2002). Limits and opportunities in mass customization for “build to order” SMEs. *Computers in Industry*, 49(1), 77–89. [https://doi.org/10.1016/S0166-3615\(02\)00060-X](https://doi.org/10.1016/S0166-3615(02)00060-X)
- Weber, P., and Schaper, M. (2004). Understanding the Grey Entrepreneur. *Journal of Enterprising Culture*, 12(02), 147–164. <https://doi.org/10.1142/s0218495804000087>