The Role of Extrinsic and Intrinsic Perceived Benefits on Customer's Purchase Intention for Mass-Customized Products:

The mediation effect of customer's need for uniqueness.

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ABSTRACT

Title: "The role of extrinsic and intrinsic perceived benefits on customer's purchase intention for mass-customized products: The mediation effect of customer's need for uniqueness."

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Consumers have more and more unique needs, leaving many displeased with standardized goods. In this sense, mass-customized products have become increasingly important to react to the growing individualization of demand and heterogeneity of customer preferences in many markets.

The purpose of this study is to explore how perceived benefits (extrinsic and intrinsic) impact the purchase intention for mass-customized products, mediating the effect of customer's need for uniqueness. For such, both the Theory of Uniqueness and the Self-Attributed Need for Uniqueness were used to approach customer's need for uniqueness.

An online survey was conducted, exposing the participants to a shirt either in a standardized way or in a mass-customized way. In this sense, this study controls and enhances the role of customization, since the analysis performed for the mass-customized stimulus was also completed for the standardized one. Findings indicate that both extrinsic and intrinsic benefits increase the purchase intention for mass-customized products, but oppositely to the standardized products, the intrinsic benefit has a higher effect on purchase intention. More, only the intrinsic benefit influences customer's need for uniqueness. On the other hand, customer's need for uniqueness does not have a significant influence on purchase intention for mass-customized products. Overall, the impact of overall perceived benefits on purchase intention for mass-customized options is not mediated by the customer's need for uniqueness.

SUMÁRIO

Título: "O papel dos benefícios extrínseco e intrínseco percepcionados na intenção de compra do cliente por produtos customizados em massa: O efeito mediador da necessidade de singularidade do cliente."

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Os consumidores têm necessidades cada vez mais singulares, deixando muitos descontentes com os bens *standardized*. Neste sentido, os produtos customizados em massa têm se tornado cada vez mais importantes na resposta à individualização da procura e heterogeneidade das preferências dos clientes em muitos mercados.

O objetivo deste estudo é explorar de que forma os benefícios percepcionados (extrínsecos e intrínsecos) impactam a intenção de compra por produtos customizados em massa, mediando o efeito da necessidade de singularidade do cliente. Para tal, tanto a Teoria da Singularidade como a Necessidade Auto-Atribuída de singularidade foram usadas para abordar a necessidade de singularidade do cliente.

Um questionário online foi realizado expondo os participantes a uma camisa *standardized* ou customizada em massa. Neste sentido, este estudo controla e aprimora o papel da customização, uma vez que a análise realizada para o estímulo customizado em massa foi igualmente feita para o *standardized.* Os resultados indicam que os benefícios extrínsecos e intrínsecos aumentam a intenção de compra por produtos customizados em massa, mas ao contrário dos produtos *standardized*, os benefícios intrínsecos têm um efeito superior na intenção de compra. Para além disso, apenas o benefício intrínseco influência a necessidade de singularidade do cliente. Pelo contrário, a necessidade de singularidade do cliente não tem uma influência significativa na intenção de compra por produtos customizados em massa. No geral, o impacto dos benefícios percepcionados na intenção de compra por opções customizadas em massa não é mediado pela necessidade de singularidade do cliente.

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GLOSSARY

SANU – Self-Attributed Need for Uniqueness

NFU – Need for Uniqueness

CNFU – Customer's Need for Uniqueness

OPB – Overall Perceived Benefits

PI – Purchase Intention

PFA – Product Family Architecture

MC – Mass-Customized

S – Standardized

CI – Confidence Interval

CHAPTER 1: INTRODUCTION

1.1 Background

The topic of this dissertation is about mass-customized (MC) products, a subject that to respond to the growing individualization of demand in recent years has become progressively more relevant (Franke & Piller, 2003). The mass customization concept refers to the development, production, marketing, and delivery of a customized service or product that offers the freedom of customization, allowing individuals to locate precisely what they need at a reasonable price (Pine II, 1993). By giving the ability to choose from a wider range of potential "products", the buyer is more likely to attain the configuration that most suits its preferences – both functional and aesthetic (Randall, Terwiesch, & Ulrich, 2007).

Providing to consumers the cost benefit of mass manufacturing and the differentiation benefit of customization became a competitive must have (Varadarajan, 1992), as the combination of advanced engineering and information technology empowers firms to be extremely adaptable and responsive in delivering product variety via mass customization (Pine II, Victor, & Boynton, 1993).

When consumers take part in a mass customization program, data concerning different levels of customers' preferences are acquired by retailers. Consequently, they are gifted to convert the customer's needs and desires into a specific product or service requirement (Zipkin, 2001) and to establish a long-term relationship with customers (Endo & Kincade, 2008). Since customization can become a strategic tool that presents additional benefits to consumers, it has been implemented in a variety of industries (Park & Yoo, 2018).

Considering a mass customization context, two types of perceived benefits have been recognized by researchers – the product (extrinsic benefit) and the mass customization experience (intrinsic benefit) (Fiore, Lee & Kunz, 2004; Franke & Frank, 2004; Schreier, 2006). It is well established in the literature that higher the perceived value, higher the intention of purchase (Chang & Wildt, 1994). Accordingly, it is expected that higher the perceived benefits of a MC product, higher will be the customer's purchase intention. Currently, the potential value increase of self-designed products is mainly explained by the extrinsic benefit (Franke, Keinz, & Steger, 2009).

Customers' need for uniqueness (CNFU) is another variable that may influence purchase intention for MC products. Commonly, new products are created in response to the average

needs of a particular target market. This traditional approach is appropriate if the selected segment is of decent size and relative customer preference homogeneity exists within it (Schreier, 2006). Nonetheless, more regularly customers present unique needs, leaving many displeased with standardized goods (Franke & Von Hippel, 2003). Since customization facilitates and enhances the manifestation of feelings of uniqueness, the desire to be unique is likely to impact consumers' reactions to MC products (Lynn & Harris, 1997a). With mass customization, an individual can distinguish himself from others by owning, possibly, a unique product (Franke & Schreier, 2008).

The impact of resulting products' uniqueness in MC systems has started to be explored empirically by few studies (Endo & Kincade, 2008). Due to the lack in literature, a personal interest, and the managerial relevance of the topic, this research aims to understand how perceived benefits (intrinsic and extrinsic) impact the purchase intention for MC products, and how the CNFU mediates that effect.

1.2 Problem Statement

The research's scope is to explore the relationship between the perceived benefits (extrinsic and intrinsic) and the customer's purchase intention for MC products, mediating the effect of customer's need for uniqueness. To address the CNFU both the Uniqueness Theory (Snyder & Fromkin, 1977) and the Self-attributed Need for Uniqueness (Lynn & Harris, 1997a) will be used together as framework. Essentially, the problem statement for this research can be established as:

"The role of Extrinsic and Intrinsic Perceived Benefits on Customer's Purchase Intention for Mass-Customized Products: The mediation effect of Customer's Need for Uniqueness."

The subsequent research questions emphasize the problem statement:

RQ1: What is the impact of perceived benefits – extrinsic and intrinsic - on purchase intention for mass-customized products?

RQ1.1: Which benefits, extrinsic or intrinsic, are the major reasons for people shopping mass-customized products?

RQ2: What is the relationship between perceived benefits (extrinsic and intrinsic) and customer's need for uniqueness?

RQ3: Does customer's need for uniqueness explains the relationship between the overall perceived benefits and purchase intention for mass-customized products?

RQ4: What is the impact of customer's need for uniqueness in purchase intention for mass-customized products?

1.3 Relevance

The increase in marketplace competition is being reflected by several market indicators. One central goal of this study is to suggest that adopting MC programs can be an effective way of bettering the competition in meeting customer's needs over time in the 21st century. Mass customization programs will increase the likelihood that each consumer gets the most precise option he or she needs. This is a path of potentially increase a firm's market share and even its primary demand for the product category (Kahn, 1998).

An important research task is to understand how customer's need for uniqueness is expected to be affected by which sources of value, in a MC context. Specifically, it is relevant to see the sights of how CNFU impacts product acquisition behaviors related to achieve differentness (Tian, Bearden, & Hunter, 2001). Also, the identification of underlying factors that affect consumers' decision making when purchasing MC products has not yet been the object of many studies (Tang, Luo, & Xiao, 2011). In addition, a more in-depth analysis of customer benefit is needed to guarantee the long-term triumph of a mass customization offering (Park & Yoo, 2018).

Academically the research topic is of importance due to its recent nature – the concept was first introduced by Davis, in 1989. In fact, MC production has during the last decades been a topic of interest, mainly because the companies that are being able to manage it with the right strategy gain success and market growth (Lander & Liker, 2007).

For retail managers, mass customization can even drive the direction of their strategies, since manufacturers need to reflect customers' specific interests before making a MC program (Franke & Von Hippel, 2003). In this sense, users can be highly innovative which is reflected by empirical studies on the bases of innovation. When transferring customers' needs into MC products through the use of a toolkit, problem-solving tasks are indeed dealt by companies via a highly innovative approach (Schreier, 2006). Additionally, it has also been documented as an effective tactic to increase consumer involvement in retailing (Kamali and Loker, 2002). This research is interesting from a managerial perspective, since a comprehensive understanding of

value-generating factors is fundamental for developing effective MC toolkits.

Personally, this topic is interesting to me as I recognize in a MC strategy stunning advantages for both, companies and customers. When implemented successfully, a MC strategy constitutes a competitive advantage for companies, as well as it is able to meet individual customer's needs (Styhre, 1996).

With this dissertation I hope to be able to provide relevant guidelines on how to improve the customizing options associated with a MC product, providing useful insights on how to manage a MC program. In the light of CNFU, determine if there is a better combination between extrinsic and intrinsic benefits in a MC purchase is an aim of this study.

1.4 Research methods

In this study, both primary and secondary data were considered in order to present an adequate answer to the research questions presented.

Initially, an extensive literature review was performed to acquire an understanding of the research topic, of what has already been done on it and what the key issues are. Based on all this research, it was possible to acquire a deep background knowledge about the variables present in the conceptual model. The literature review was, therefore, crucial to define relevant hypothesis to be tested. Additionally, the research was essentially completed from marketing top journals.

Considering the primary data, an online survey was conducted to assess the connection between and among the conceptual model's variables. Two A/B tests and a quasi-experiment study were conducted to enhance the influence of mass customization on the variables mentioned in the conceptual model. The A/B test consists of presenting two different versions of the same product, MC versus standardized, each to half of the participants. The data were collected over time (longitudinal) and was self-administered. A convenience and snowball sampling (non-probability sampling technique) were used, thus the results are ultimately biased and cannot be generalized from the sample to the population of interest.

Finally, the SPSS software was used to analyze the quantitative results, with the Hayes macro PROCESS test being applied to measure the possible mediation effect of CNFU when explaining the connection between overall perceived benefits and purchase intention, and linear regressions were applied to test all the other hypothesis.

1.5 Dissertation outline

The next chapter presents a review of some of the existing literature on MC products, CNFU, extrinsic and intrinsic benefits, and purchase intention, as well as a development of the hypothesis that will be further used for statistical testing. The methodology section describes how the study will answer to the hypothesis, by presenting the constructs that found the questionnaire and the procedure used to collect, analyze and interpret the data. The fourth chapter analyses in detail the results obtained through the questionnaire and discusses the implications of the findings. Finally, the last chapter highlights the conclusions of this dissertation, as well as its limitations, and suggests future research studies in the field of MC products.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The next chapter presents a literature review with the purpose of getting a deep background knowledge about the conceptual model's variables and defining the hypothesis of this study. In this sense, this chapter summarizes, contrasts, and evaluates existing literature from related topics that are relevant to answer the research questions. In the first part, the concept of mass-customized products is presented and developed. In the following parts, the concepts of purchase intention, perceived benefits, customer's need for uniqueness, and the interactions between those variables are specified. To conclude, a conceptual framework gives an overview of the study (Figure 1).

2.1 Mass-customized Products

The analysis and implementation of mass customization has received growing consideration in marketing since the late 1980s, due to several aspects, such as the greater market diversity and the growing individualization of demand (Franke & Piller, 2003), the heterogeneity of customer preferences in many markets (Gilmore & Pine 1997), the increasing demand for satisfaction (Endo & Kincade, 2008), the increasing investments in new product development, the shorted product life cycles and global competition (Da Silveira et al., 2001).

As mass customization offers a competitive advantage and additional benefits to consumers, various industries – such as, shoes (e.g., Nike), computers (e.g., Dell), cars (e.g., Toyota), apparel (e.g., Brooks Brothers), and home furnishing (e.g., Pottery Barn) – have embraced mass customization as a strategic tool (Park & Yoo, 2018). The traditional trade-off between reducing the unit cost of production – cost leadership – and increasing the quality and performance of the product – differentiation – was resolved by the disruptive change brought by new technologies (Franke & Schreier, 2008). Hence, the concept of cost leadership and differentiation as mutually exclusive strategies for attaining and maintaining competitive advantage has started to be replaced by mass customization as an alternative to tackling the market (Varadarajan, 1992; Pine II, 1993).

Having in mind the traditional paradigm of manufacturing management, on one hand customized products (craft customization) are manufactured using low volume production – which copes well with a wide diversity of products and with design procedures that are suitable for high level of customer involvement in specifying the product (Duray, Ward, Milligan, & Berry, 2000) – and are traditionally related to price premium (Piller, 2004). On the other hand, standardized products (mass production) are produced on-stock where efficiency, productivity

and taking advantage of economies of scale are main focus points. Mass production meets only the mean preferences of a market segment and customer involvement is only pursued during market research to capture standard product design attributes with a high demand (Piller, 2004). In this sense, the practice of mass customization disrupts the traditional paradigm of manufacturing management (Duray et al., 2000).

The disruptive concept of mass customization was originally introduced by Davis, in 1989, presenting it as the ability to offer exclusively designed products and services to every single customer via high process integration, flexibility, and agility, as well as without sacrificing scale economies. Likewise, Pine II (1993) defends that the mass customization's goal is to present an ample variety of products and services, so that the vast majority of customers get precisely what they want at a fair price. As mass customization enables companies to reap economies of scale, through repetition, it can reduce costs and lead time. Therefore, mass customization reaches a greater margin due to its high volume production – where the volume covers the cost of vast investment in equipment, tooling, manufacturing, and tutoring (Du, Jiao, & Tseng, 2000).

From an operational perspective, the proper assessment of customer needs and existing operational resources is crucial to define the right level of customization (Da Silveira et al., 2001). In fact, mass customization can be accomplished by many different methods (Ahlstrom & Westbrook, 1995) – each of them being classified by the MC approach and by the point of customer engagement in the production cycle. Depending on the method used, different types of MC products are created, such as modular products, tailor-made products, adaptative products, and customized additional services (Piller, 1998). Having in mind the MC approaches, Gilmore and Pine (1997) highlight four different types: collaborative (customers engage directly with designers), adaptive (customers have the ability to change the product during its use), transparent (products are fitted to individual needs), and cosmetic (standard products are packaged specifically for the individual customer). On the other hand, considering the point of customer engagement in the production cycle, it is important to highlight 6 levels of mass customization (Broekhuizen & Alsem, 2002; Da Silveira et al., 2001): design (collaborative project), fabrication (creation of customer-tailored products based on designs that were previously defined), assembly (assembling standard components into exclusive arrangements), additional services and customer work (mass customization is attained by merely adding custom work or services to standard products, usually when delivered), and usage (products that are possible to adapt to specific purposes or circumstances, after delivery).

The earlier customers can alter production, the higher the impact will be on the final product, and more significant the required organizational transformation and uniqueness of the offering (Duray et al., 2000).

Accordingly to Pine II (1993), the true mass customization entails modularity in production. Modularity permits part of the product to be produced in mass as standard modules, while product uniqueness is attained through the arrangement of those modules. Similarly, Ulrich (1995) defended that modularity can boost product diversity, reduce delivery time and provide economies of scope. Through modularity, modular products are created at the assembly level, by having a collaborative or transparent approach. In this sense, a Product Family Architecture (PFA) is necessary to sustain product customization, in particular, to define customer needs and to subsequently satisfy them by arranging well-established modules and components (Duray et al., 2000). With PFA, a product family strategy can be created by the manufacturer, where some functional modules are common while others are presented with numerous variants allowing the assembly combination to offer high variety in the end products (Hu, 2013). Thus, while manufacturers determine the basic product architecture and variants, customers self-select attributes to arrange an offer that better meets their own needs (Ghosh, Dutta, & Stremersch, 2006). For the purpose of this dissertation, the modular context will be considered.

Hence, a MC product results not only from a customer self-design (Wind & Rangaswamy, 2001), since customers can adapt product attributes to their specific requirements (Franke & Schreier, 2010), but also from an act of company-to-customer interaction. The interaction systems for mass customization, most commonly referred to as toolkits, are accountable for directing the customer throughout the design process (Schreier, 2006). Considering what customers are able to and how, these toolkits are deemed as very heterogeneous (Franke & Piller, 2003). Those attributes to be manipulated by the toolkit might be the ones on which consumers' preferences differ sharply and that can easily be manipulated by the consumer and evaluated with the configurator (Deng, Hui, & Hutchinson, 2010). This is the fundamental aspect that sets apart other strategies from mass customization. From a functional perspective, mass customization begins by identifying customers' individual needs (customer-centric strategy) and ends by providing varied final products that can be appreciated by distinct customers (Du et al., 2000). The unpredictable nature of each customer's demands must be considered as an opportunity to anchor future product designs (Pine II, Victor, & Boynton,

1993). Additionally, considering a managerial perspective, mass customization can be accomplished regarding fit, style, and functionality (Piller, 2004).

The literature has also studied the different costs related with a MC offer, highlighting predominantly the cognitive struggles, the delivery period and the time needed to customize a product (Agrawal, Kumaresh & Mercer, 2001; Zipkin, 2001; Broekhuizen & Alsem, 2002). Moreover, by experiencing uncertainty or by having limited insight into their preferences, customers bear additional psychological costs (West, Brown, & Hoch, 1996; Kramer, 2007).

The triumph of mass customization is influenced by how customers realize the benefits and added costs of mass customization (Broekhuizen & Alsem, 2002) – the perceived benefits must compensate the different costs associated to the configuration process. Mainly, a balance of time to market, variety, and economy of scale is required to ensure the success of mass customization (Du et al., 2000).

2.2 Purchase Intention

Purchase intention (PI) is an essential predictor of actual purchase, as customer's purchase intention arises under the belief of an imminent transaction (Hsu, Chang, & Yansritakul, 2017).

Purchase intention refers to some exchange behavior generated following consumers' overall assessment of a product. Indeed, it is considered as a perceptual response adopted in relation to one's attitude to an item, combined with external stimulating factors, like the experimental situation and the variations in time (Fishbein & Ajzen, 1975). Thus, the ultimate decision of buying is reliant on consumer's intention with several external factors (Keller, 2001).

When consumers have a positive purchase intention a brand commitment is established, which pushes consumers to make an actual purchase (Schiffman & Kanuk, 2007). Nonetheless, the comparison between expressed purchase intention and actual purchase behavior has been difficult (Follows & Jobber, 2000). For the present study, purchase intention is thought to be a representative estimation of purchase behavior.

2.3 Perceived Benefits

The commonly accepted definition of perceived value defends that the consumer's appraisal of the utility of a product is defined by the consumer's overall assessment of what is given and what is obtained in return (Zeithaml, 1988). Also, the attributes are means through which consumers obtain value, via the positive benefits accruing from the attributes (Gutman, 1997).

Having in mind the motivation theory (Deci, 1975), motivation is composed by extrinsic and intrinsic factors. Extrinsic motivation arises from consumers' perceived usefulness of the results derived by their behaviour or product performance, while intrinsic motivation relates to the practice of an activity just for the act itself, and not for any other apparent reinforcement. Both perceived value and behavioural intention have been found to be affected by extrinsic and intrinsic factors (Rogers, 1995). It has also been suggested that products are acquired for their utilitarian and hedonic benefits (Babin, Darden, & Griffin, 1994). Thus, Kim et al. (2007), by considering the motivation theory to understand perceived benefit, partitioned perceived benefit into extrinsic (known as utilitarian or cognitive) benefit and intrinsic (known as hedonic or affective) benefit.

Extrinsic benefit denotes the value a customer perceives from using a product, relating to the product's usefulness which is focused on task accomplishment (Rogers, 1995). The construct of usefulness is in line with the concept of product quality (Kim et al., 2007), which is described as the merit and superiority of a product according to the customer's cognitive assessment (Zeithaml, 1988). On the other hand, intrinsic benefit refers to the enjoyment and pleasure retained from the experience of using a product (Kim et al., 2007). This concept is identical to the definitions of emotional value, which corresponds to the utility derived from emotions or affective states created by a product (Sweeney & Soutar, 2001). Hence, intrinsic benefit implies that an experience is appreciated for its own stake, while extrinsic benefit serves as means to an end.

Extrinsic benefit and intrinsic benefit can lead to extrinsic and intrinsic values, respectively (Chiu, Wang, Fang, & Huang, 2014). Warranting positive value to the customer is a precondition for the long-term triumph of every customization program (Schreier, 2006). Hence, the benefits customization programs generate for customers started to be studied by numerous scholars. Considering a MC context, two types of perceived benefits have been recognized by academics: product and mass customization experience (Franke & Frank, 2004; Schreier, 2006), parallel to extrinsic and intrinsic benefits, respectively. Both, the product and the experience, support the eagerness to embrace MC options (Fiore, Lee, Kunz, & Campbell, 2001).

Most contributions to date have mainly considered extrinsic value to clarify product benefit, mentioning the aesthetic and functional fit between MC products and consumer preferences (Franke & Schreier, 2008). This fit is high when consumers' needs are matched by the product

attributes (Franke & Schreier, 2008). In this way, by specifying certain product attributes in the product configurator, the benefits that consumers perceive from the MC product increases (Simonson, 2005).

Nevertheless, by disregarding the hedonic value, the conventional utilitarian explanations do not reveal the shopping experience effect of a MC context (Babin, Darden, & Griffin, 1994). Characteristically, consumers desire to attain a feeling of pleasure from a service or product experience (Carbone & Haeckel, 1994) – as human actions are, for the most part, inherently pleasure-seeking (Holbrook & Hirschman, 1982). The perceived benefit associated with the MC experience is the intrinsic one. According to Schreier (2006), when consumers experience the process of designing their own product, value is added, such as novelty, recreation and curiosity. Similarly, Randall et al. (2007) highlighted that consumers who have designed their own product recognize increased benefits. Further psychological factors have been mentioned in recent research, such as accomplishment and pride feelings of having created it oneself (Deng, Hui, & Hutchinson, 2010; Franke, Schreier, & Kaiser, 2010; Moreau & Herd, 2010).

2.4 Perceived Benefits and Purchase Intention

Consumer behavior is value driven, thus perceived values ultimately affect consumers' choice patterns (Gutman, 1997). Perceiving value has a significant effect on customer's purchase intention (Chan, 1996), which means that if a customer perceives high value then it influences purchase intention (Petrick, 2002). Consequently, consumers must have a stronger purchase intention for MC products that provide higher extrinsic and intrinsic benefits. However, from time to time customers fail to realize the opportunities presented by a MC product and they end up preferring the default configurations provided by the manufacture (Hill, 2003). Hence, the next hypothesis is proposed:

H1: Perceived benefits - extrinsic and intrinsic - positively affect the customer's purchase intention for mass-customized products.

Given the situational context of an individual consumer, the relative importance of intrinsic and extrinsic benefits will be different – for example, the most skilled customers may be more functional or task oriented (Schreier, 2006). Therefore, it leads to establishing the following hypothesis:

H1a: The type of perceived benefit – extrinsic and intrinsic – has a different effect on the purchase intention for mass-customized products.

However, even though the intrinsic benefit is recognized as being a MC benefit, the preference fit argument (extrinsic benefit) is the main justification used for a potential value increase of self-designed products (Franke et al., 2009). Considering the previous information, the following is noted:

H1b: The extrinsic benefit has a larger effect on purchase intention for mass-customized products than the intrinsic benefit.

2.5 Customer's need for uniqueness

Having in mind the psychological marketing literature, the construct of customer's need for uniqueness is discussed. The notion of need for uniqueness (NFU) stems from Snyder and Fromkin's (1977) Theory of Uniqueness. In consonance with this theory, the need to see oneself as being different from other people is stimulated when individuals see themselves as extremely alike to others in the environment that surrounds them, alarming their self-perception of uniqueness (Synder & Fromkin, 1977).

NFU reflects individual variations in consumer counterconformity motivation (Snyder & Fromkin, 1977) - motivation that involves the deliberate pursuit of differentness relative to others as an edge point, differentiating the self by acquiring and displaying material possessions (Nail, 1986).

However, in general, customers tend to prevent the unpleasant effect related to excessive divergence (Fromkin, 1970). Thus, customers use behavioral procedures to sustain moderate uniqueness. The extent to which these procedures are employed depends on the strength of individuals' need for uniqueness (Snyder & Fromkin, 1977), that is identified as an individual-level trait of personality (Lynn & Harris, 1997a; Tian & Mckenzie, 2001).

Lynn and Harris (1997a, 1997b) criticized the Uniqueness Theory for focusing too much on public aspects of uniqueness. Thus, NFU might fail to apprehend the strength of one's personal need (Lynn & Harris, 1997a; Tian & Mckenzie, 2001). Consequently, Lynn & Harris (1997a) proposed an alternative measure of uniqueness, the Self-Attributed Need for Uniqueness (SANU), which focuses on the personal expression of need for uniqueness. SANU does not refer to public and contextualized behaviors, like NFU, but focuses on a general and explicit representation of the need for uniqueness. As a consequence, NFU and SANU complement each other, being the major scales to measure individual's need for uniqueness (Lalot et al., 2017).

Finally, individuals can satisfy their need to be unique in different ways, such as, through possession displays (Belk, 1988), purchase of novelty or original goods that are not accessible in mass quantities (Tian et al., 2001), as well as possess unique products (Simonson & Nowlis, 2000).

2.6 Customer's need for uniqueness and Perceived Benefits

The perceived uniqueness of a product is related to the extent to which a customer considers a product as distinct from other products in the same category (Tian et al., 2001). A mass customization program enhances differentiation from other customers and their possessions by means of a unique product, making consumers perceive higher benefits (Fiore et al., 2004; Simonson, 2005).

The main point is that the high variety of products provided by a MC program permits an effective adaptation to the customers' preferences, as well as satisfy the need of consumers who aim for uniqueness (Tian et al., 2001). Thus, the subsequent hypothesis is suggested:

H2: The customer's need for uniqueness is negatively affected by the perceived benefits – extrinsic and intrinsic - of a mass-customized product.

2.7 Customer's need for uniqueness and Purchase Intention

Consumers have unique needs, leaving many dissatisfied with standardized products (Franke & Von Hippel, 2003). In this context, individuals allege that they are willing to pay an extra for improvements that better meet their individual needs. Likewise, to resist conformity, consumers may purchase products that are not accessible in mass quantities (Tian et al., 2001). In fact, customers with a high preference for unique products announce considerably higher intentions to engage in MC programs (Fiore et al., 2004). Thus, the following hypothesis is predicted:

H3: Customer's need for uniqueness will be positively related to the purchase intention for mass-customized products.

The earlier hypotheses indicate that CNFU may be a mediator on the relationship between the independent and dependent variable, which means that perhaps the overall perceived benefits affect purchase intention through their effect on CNFU. Thus, the empirical findings must validate this effect by the next hypothesis:

H4: The relationship between the overall perceived benefits of a mass-customized product and the resulting purchase intention of the customer, is mediated by the customer's need for uniqueness.

2.8 Conceptual Framework

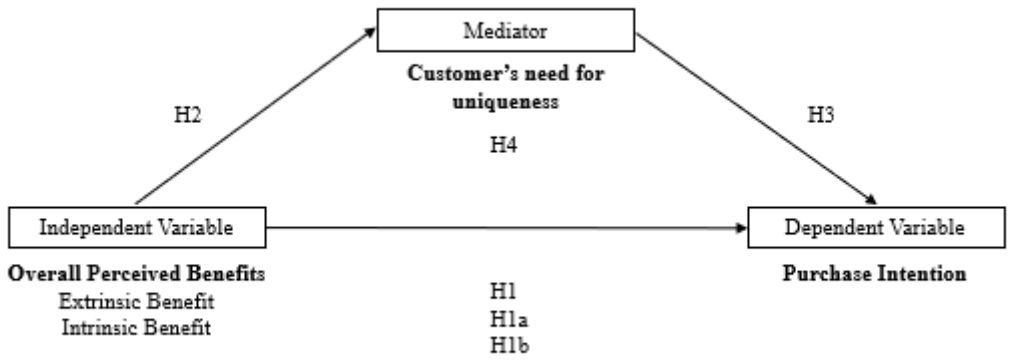


Figure 1: Conceptual Framework.

CHAPTER 3: METHODOLOGY

Chapter 3 elucidates the methodology applied to address the research questions and to collect data to reach relevant conclusions in relation to the hypothesis defined. First, the research approach is presented, followed by a summary focused on the type of primary and secondary data used. Finally, the primary data is described with further detail, in order to define the data collection, measurement and data analysis techniques.

3.1 Research Approach

Different research designs and approaches have been employed to accomplish the purpose of this dissertation, which is to explore the association between the overall perceived benefits (extrinsic and intrinsic) and customer's purchase intention for MC products, mediating the effect of CNFU.

Considering the different research designs – exploratory, descriptive and explanatory (Saunders, Lewis, & Thornhill, 2009) – both exploratory and explanatory methods were considered. First, the exploratory method was used in order to gain familiarity with the most relevant concepts referring to the problem statement, all conducted by searching the literature. After the research was formalized and six hypotheses were outlined, defining the data to be collected, as well as the scales and measures for instrument design (Harrison & Reilly, 2011). Finally, the explanatory design was considered to clarify potential causal relationships among the variables using primary data.

Considering the different research's approaches (Creswell, 2009), the present study is focused on the quantitative one. With this approach, data were collected through an online survey and analyzed quantitively through statistics, determining whether empirical evidence supports the proposed hypotheses or not. Indeed, two A/B split tests were conducted (S vs MC) to better understand the role of mass customization.

3.2 Secondary Data

Secondary data was handled mostly in form of scientific articles from top journals. Its analysis was crucial to acquire an understanding regarding the problem statement, as well as to create the conceptual model and to sustain the constructs and hypotheses of the study. In fact, reviewing the literature is important for two main reasons (Sharp et al. 2002) – the first, the preparatory search, is crucial to generate and clarify the research ideas; the second, the critical literature review, helps to enhance the subject knowledge and to clarify the research questions further.

3.3 Primary Data

Considering the primary data, an online survey was conducted to collect data in order to explore the relationship between the variables and consequently to answer the research questions. In this sense, a quantitative analysis was performed based on the results obtained from the online survey. Further, the data were collected over time (longitudinal) and self-administered.

For this study, an online survey is an important procedure for data collection due to its several advantages. The economy of the design and the rapid turnaround in gathering the data are an added value (Creswell, 2009). Also, the flexibility, the convenience, the diversity of questions, the possibility to reach large samples, and the ease of data entry and analysis are other advantages (Evans & Mathur, 2005). Regarding the disadvantages, they are more related with the respondents' inability to answer the survey, as well as their unwillingness to respond it accurately, the privacy and security issues, and the more impersonal contact (Evans & Mathur, 2005).

Before using the survey to collect data a pilot test was conducted to 10 people. Its purpose was to test the questionnaire in conditions as similar as possible to the posterior research, but not in order to report results, but rather to ensure that the participants would encounter no problem in responding the questions and that there would be no obstacles in recording the data. Thus, it allowed evaluating the questions' validity, as well as the expected reliability of the data that would be gathered.

3.3.1 Data Collection

The present dissertation intends to analyze the influence of perceived benefits (extrinsic and intrinsic) on purchase intention for MC products in one product category – shirts. The main requirement for this choice was that other companies successfully had created a mass customization program within this product category (e.g. Apposta, Hockerty and Sumissura). Additionally, this is a disruptive category that is breaking traditional rules and is innovating to alter the status quo, displacing established market leaders (e.g. at the Italian Web Award 2012, Apposta was awarded as the "Best E-commerce of the year"). Finally, considering the MC field there are no studies focusing on this product category.

A convenience and snowball sampling (non-probability sampling techniques) were used, since the survey's data was collected from participants who were conveniently available to join the research (Creswell, 2009), as well as the members of the sample group were recruited via chain

referral. In fact, naturally formed groups (e.g. family members and friends) and some other volunteers composed the respondents' group of the online survey. Accordingly, the procedure is named a quasi-experiment (Creswell, 2009).

Convenience sampling is the simplest and the most convenient technique to collect primary data - the data collection can occur in a short period of time, as well as with low costs unlike probability sampling methods (Saunders et al., 2009). However, convenience sampling is very susceptible to selection bias, influences beyond the command of the researcher, as well as it may has associated a great degree of sampling error (Saunders et al., 2009).

The sample was collected by sharing the online survey via Facebook and by email, from 26th November 2018 to 3rd December 2018. The target for the survey were all people who buy their own shirts. Overall, 466 respondents were recorded, of which 400 fully completed the survey. Considering the ones who finished it, 372 valid responses and 28 invalid responses were collected. The scenarios were randomly and evenly assigned to the participants, resulting in a distribution of 185 participants exposed to the standardized stimulus and 187 participants exposed to the MC stimulus. Finally, the survey was launched in two languages – Portuguese and English – as it was not barred by nationality.

3.3.2 Research Design

The study employs a 2 (MC product, S product) x 2 (Male, Female) factorial design experiment (Figure 2). First, on one hand, the results obtained in the MC stimulus were used to test the hypothesis. On the other hand, as further analysis, the results obtained for the standardized stimulus were individually analyzed to enhance the role of mass customization and to present the differentiation between having or not customization. Second, due to gender specificity of clothing, both stimuli were established differently for women and for men. The study was performed with unbranded shirts, not only to remove past knowledge and experience in relation to brands, but also potential brand preference bias.

The online survey is composed by three main parts (Appendix 1). Since only the participants who buy their own shirts were considered as valid (target for the survey), a control question at the beginning of the survey was displayed to ensure that all the respondents would fulfill this requirement. Next, a question about product usage was displayed to infer relevant differences among the respondents. Finally, this first section had as a main goal to analyze the respondents' NFU and SANU (Synder & Fromkins, 1977; Lynn & Harris, 1997).

In the second part, the respondents were exposed to one stimulus. There are two stimuli – standardized and mass-customized – with two possible scenarios (Figure 2). As previously mentioned, due to gender specificity of clothing, both stimuli were established differently for women and for men. Specifically, the images used to represent the standardized shirts, as well as the modules for the MC shirt, were gender specific. To ensure that men would be exposed to one of the two male's stimuli and that women would be exposed to one of the two female's stimuli a question was first presented – by asking "what is your gender?".

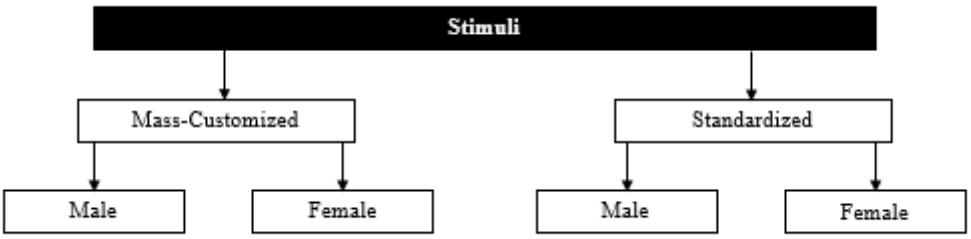


Figure 2 – Questionnaire design (stimuli).

Considering the standardized stimulus, the respondents were presented to 10 standardized shirts and were questioned to select the shirt they would prefer to buy (Franke et al., 2010). These standardized shirts were of equal quality as their potential self-designed counterparts in the MC stimulus (Schreier, 2006).

Considering the MC stimulus, the respondents were exposed to the functionality of a toolkit to self-design their own shirt. The toolkit employed is quite simple to use and presents a large variety of design possibilities, allowing to choose and combine previously defined options for the fabric (12 alternative for both genders), sleeve (2 alternatives for men and 3 for women), cuff (10 alternatives for men and 8 for women), pocket (5 alternatives for both genders), fitting (2 alternatives for both genders), and collar (10 alternatives for men and 8 for women). Having in mind the PFA used, the fact that each shirt's module was presented with numerous variants, made possible that each assembly combination provided a large variety in the end MC shirts (24 000 variants for male's shirts and 23 040 variants for female's shirts). In this sense, the MC stimulus represents a common modular MC context, since the basic product architecture and options were previously defined in the survey, while respondents self-selected the attributes to configure a shirt that better met their own needs (Ghosh et al., 2006). Furthermore, the toolkit provided constitutes a decent depiction of the toolkits used in the B2C field, since it is completely inspired on what companies have used for the shirt's toolkits.

In the third part, the participants were asked about their extrinsic and intrinsic perceived benefits, as well as about their purchase intention.

Finally, the respondents answered some demographic questions – age, country, occupation, education level, number of household members, and yearly net household income.

3.3.3 Measurements

Considering the survey's division and the constructs of the study, the first section starts by estimating the SANU, that was measured through 4 items that were completed by selecting the word considered more appropriate to complete an affirmation. Respondents indicated to what extent "they like to be different from other people", "being distinctive is important to them", "they intentionally do things to make themselves different from those around them", and "they have a need for uniqueness". This section also evaluates the respondents' NFU, that was measured through a 32-item scale. In this case, some items were reversed-scored, as responses were scored so that stronger agreement would mean the answer of individuals with high NFU (reverse-scored items are signaled in Appendix 1).

In the second section, a stimulus was presented to the respondents. Both stimuli, the standardized one and the MC one, were presented based on what the Hockerty website (male) and Sumissura website (female) are doing. Considering the standardized stimulus, for both genders, the 10 shirts presented were selected from those websites. Considering the MC stimulus, the images used to represent each product module (collar, cuff, sleeve, fit and pocket) were also retrieved from those websites. Nonetheless, the toolkit provided in the online survey is less complex than what is possible to do for this product category. On one hand, the online survey did not provide all the possible attributes that can be customized (e.g. placket, pleats, bottom, elbow patches, etc). The criteria used to select the 5 attributes considered in the toolkit of this study, was that these ones in none of the most relevant websites for MC shirts (Apposta, Hockerty, Sumissura, and Tailor Store) are considered as being an extra in the customization process. On the other hand, for the 5 modules selected, were not present all the possible options available to customize them. For example, only 12 fabric options are presented from the 92 fabric options available for both genders in the Hockerty's website and Sumissura's website. Such decision was made due to software constraints.

To understand the impact of each stimulus on perceived benefits, the third section starts by assessing the extrinsic and intrinsic benefits perceived by the participants. In this sense, 2 questions had been established. On one hand, the first question focused on the extrinsic

perceived benefit, where 5 items (“Innefective” – “Efective”; “Unhelpful” – “Helpful”; “Not functional” – “Functional”; “Unncessary” – “Necessary”; “Impractical” – “Practical”) were presented. On the other hand, the second question focus on the intrinsic perceived benefit, where 5 items (“Not fun” – “Fun”; “Dull” – “Exciting”; “Not delightful” – “Delightful”; “Not thrilling” – “Thrillling”; “Unenjoyable” – “Enjoyable”) were also presented.

Considering the respondents’ purchase intention measurement, this dissertation uses a construct of 5 items (“I definitely not buy it – I definitely buy it”; “I definitely do not intend to buy it – I definitely intend to buy it”; “I have a very low purchase interest – I have a very high purchase interest”; “I never intend to buy it – I definitely intend to buy it”; “I probably not buy it – “I probably buy it”).

7-point likert-type scale and 7-point semantic differential scale were mainly used to measure the constructs introduced in the online survey. Specifically, a 7-point likert scale anchored by strongly disagree and strongly agree was considered to measure the constructs of SANU and NFU. On the other hand, the constructs of extrinsic benefit, intrinsic benefit, and purchase intention were measured with a 7-point semantic differential scale (Table 1).

Finally, all the constructs were approved by existing literature and present acceptable reliabilities (all Cronbach’s alphas >.70). Further, they were all left as their original version.

Constructs	Nº of items	Scale	Authors
Self-attributed Need for Uniqueness	4	Multi item scale (7-point scale)	(Lynn & Harris, 1997a)
Need for Uniqueness	32	Multi item scale (7-point scale)	(Synder & Fromkins, 1977, 1980; Tepper & Hoyle, 1996)
Extrinsic Benefit	5	7-point semantic differential scale	(Crowley, Spangenberg, & Hughes, 2003)
Intrinsic Benefit	5	7-point semantic differential scale	(Crowley et al., 2003)
Purchase Intention	5	7-point semantic differential scale	(Spears & Singh, 2004)

Table 1 – Measurement Model.

3.3.4 Data Analysis

The data was gathered through the survey-software Qualtrics and it was analyzed using version 25 of SPSS. The raw data was prepared, by editing and re-coding some variables, to certificate precision in the analysis. In order to characterize the sample, descriptive statistics were used to analyze the demographics. Also, the Cronchach's alpha for each construct was analysed to confirm their reliability. Further, correlation analysis had been conducted to quantify the direction and strength of the relationships between the variables.

Having in mind that all the constructs are metric, the confirmation of the hypothesis was done through the appropriate statistical test. Linear regressions had been applied to explore the effect of perceived benefits (extrinsic and intrinsic) and CNFU on purchase intention, as well as the impact of perceived benefits on CNFU. A significance level of 5% was used for all the statistical tests performed.

To explain the possible mediation effect of CNFU on the relationship between overall perceived benefits and PI, the PROCESS macro for SPSS was used (Hayes, 2013). The statistical model of this study behaves as a simple mediation, since there is only one mediator – model 4 (Hayes, 2013). Through this model, the independent variable (X) can affect the dependent variable (Y) both indirectly and directly. Considering the indirect path, X is proposed to impact M, and this effect then proliferates to Y. Using the direct path, X affects Y, independently of X's effect on M (Hayes & Preacher, 2014).

CHAPTER 4: RESULTS AND DISCUSSION

Chapter 4 presents and analyses the data collected from the online survey and consequently tests the hypothesis defined. Based on that, it is possible to connect the main results with the prospects described in the literature review and consequently define the main conclusions.

4.1 Sample Characterization

Having in mind the 400 participants, 28 were excluded from the survey for not buying their own shirts. Thus, the demographic profile of the 372 respondents who represented valid responses is displayed in the table below (Table 2) and it is performed for the participants assigned to the standardized stimulus, for the participants assigned to the MC stimulus, as well as for the total sample.

		St shirt	MC shirt	**Total**
	Respondents	185	187	**372**
Gender	Male	40%	36.9%	**38.4%**
	Female	60%	63.1%	**61.6%**
Age	Under 18	2.2%	1.6%	**1.9%**
	18-24	69.2%	74.9%	**72%**
	25-34	11.4%	10.7%	**11%**
	35-44	3.2%	3.7%	**3.5%**
	45-54	11.9%	7%	**9.4%**
	55-64	2.2%	1.6%	**1.9%**
	65 or older	0%	0.5%	**0.3%**
Country	Portugal	83.2%	85.6%	**84.4%**
	France	2.7%	3.7%	**3.2%**
	Germany	2.2%	1.6%	**1.9%**
	Other	11.9%	9.1%	**14.3%**
Occupation	Student	57.3%	54%	**55.6%**
	Employed	37.8%	41.7%	**39.8%**
	Unemployed	1.6%	2.1%	**1.9%**
	Disabled	0.5%	0%	**0.3%**
	Retired	0%	0.5%	**0.3%**
	Other	2.7%	1.6%	**2.2%**
Education	Less than high school	1.6%	0.5%	**1.1%**
	High school	22.2%	19.8%	**21%**
	Bachelor	54.1%	54.5%	**54.3%**
	Master	20%	24.1%	**22%**
	Doctorate	1.1%	0.5%	**0.8%**
	Other	1.1%	0.5%	**0.8%**
Household members	1	16.8%	10.7%	**13.7%**
	2	13.5%	13.9%	**13.7%**
	3	25.9%	32.6%	**29.3%**
	4	27.6%	31.6%	**29.6%**
	5 or more	16.2%	11.6%	**13.7%**

Yearly net household income	Less than 20 00€	22.2%	23.5%	**22.8%**
	20 000€ - 34 999€	23.2%	26.2%	**24.7%**
	35 000€ - 49 999€	14.6%	21.4%	**18%**
	50 000€ - 74 999€	14.6%	7.5%	**11%**
	75 000€ - 99 999€	4.3%	2.1%	**3.2%**
	Over 100 000€	3.8%	5.3%	**4.6%**
	I prefer not to say	17.3%	13.9%	**15.6%**

Table 2 – Sample characterization sum up.

There was a female predominance in the sample, representing 61.6% of the total participants. In terms of age, the sample is mostly aged between 18-24 (72%). Also, the majority of the participants were Portuguese (84.4%), students (55.6%) or employed (39.8%), and 54.3% of them had, at least, the bachelor's degree. Finally, most of the participants stated to have a yearly net household income between €20 000 – €34 999 (24.7%) and a household composed mostly by 4 people (29.6%). Additionally, considering how frequently the participants use shirts, most of them stated to wear shirts sometimes (32.8%), frequently (22.3%), or very frequently (22.8%) (Appendix 2).

The standardized stimulus and MC stimulus were presented 185 and 187 times, respectively, confirming that the total number of participants was approximately evenly assigned to one of the two stimuli. Considering the standardized stimulus, the male scenario was presented 74 times and the female one 111 times. Considering the MC stimulus, the male scenario was shown 69 times and the female scenario 117 times.

Due to the use of non-probability sampling technique, the sample cannot be representative, and the results can not accurately picture the population. Nevertheless, table 2 shows that the groups are homogeneous since the demographics of the respondents across the two stimuli are very similar.

4.2 Measure Reliability

In order to verify the reliability of the items among the sample, before proceeding to the actual analysis of the hypothesis, a Cronbach's alpha for all the constructs had been performed (Appendix 3). Indeed, the internal consistency, which means how closely a set of items are as

a group was checked (Nunnally, 1978). This study was conducted for the two stimuli and for the total sample (Table 3).

In order to compute a new variable for CNFU, result from the junction of SANU and NFU, the reliability for the 36 combined items was examined. Additionally, the same was made to compute a new variable for the overall perceived benefits, result from the junction of the items of extrinsic and intrinsic benefits.

Construct	# Items	Standardized	MC	Total
Customer's Need for Uniqueness	36	0.790	0.812	0.801
Self-attributed Need for Uniqueness	4	0.843	0.838	0.841
Need for Uniqueness	32	0.765	0.782	0.774
Overall Benefits	10	0.898	0.871	0.888
Extrinsic Benefit	5	0.888	0.873	0.881
Intrinsic Benefit	5	0.902	0.853	0.884
Purchase Intention	5	0.928	0.944	0.938

Table 3 – Cronbach's alpha for the constructs used.

In general, when the Cronbach´s alpha is at least 0.70, an instrument is classified as having adequate reliability (Nunnally, 1978). Accordingly, it is possible to conclude that all the Cronbach's alphas have acceptable values, making possible not only to create a general variable for each construct, but also for the two new overall variables – one for the customer's need for uniqueness and other for the overall perceived benefits. In general, no exclusion of items would increase the Cronbach's alpha value of each construct. However, the following exceptions should be highlighted.

First, for all the 32-items of NFU, the Cronbach's alpha equals 0.774 for the total sample. Considering the Cronbach's alpha if each item deleted, by removing the items "I like wearing a uniform because it makes me proud to be a member of the organization it represents", "People have sometimes called me "stuck-up", "Being a success in one's career means making a contribution that no one else has made" and "If I must die, let it be an unusual death rather than an ordinary death in bed", the new Cronbach's alpha would be 0.776, 0.778, 0.782, and 0.781, respectively. However, since none of the removals would increase considerably the total Cronbach's alpha, all the 4 items were kept (Maroco & Garcia-Marques, 2006). Similarly, by excluding 4 of the 36-items of CNFU the Cronbach's alpha would increase. Nonetheless, since none of them would increase considerably the total Cronbach's alpha, all were kept.

4.3 Result from the Hypotheses Testing

4.3.1 Hypotheses 1, 1a, 1b, further analysis

Multiple Linear Regression Analysis: *Perceived benefits - extrinsic and intrinsic - positively affect the customer's purchase intention for mass-customized products.*

$$H_0: \beta_{\text{Extrinsic Benefit}} \leq 0 \wedge \beta_{\text{Intrinsic Benefit}} \leq 0$$

A correlation analysis between each predictor and the outcome variable had been conducted for each stimulus, to determine whether there is an association between them and consequently to determine the strength and direction of the association (Appendix 4). Since we are measuring the association of metric variables, a Pearson Correlation was performed. Considering the MC stimulus, the results from the test showed a significant positive correlation between each predictor and the outcome variable. Specifically, there is a significant positive correlation between the extrinsic benefit and purchase intention (r=0.468, p-value<.000), as well as between the intrinsic benefit and purchase intention (r=0.485, p-value<.000). Thus, higher the perceived benefits, higher the purchase intention for MC shirts. Thus, **H1 can be supported**. Considering the standardized stimulus, there is also a significant positive correlation between the extrinsic benefit and purchase intention (r=0.594, p-value<.000), as well as between the intrinsic benefit and purchase intention (r=0.540, p-value<.000). In this sense, H1 would also be supported for the standardized case. Furthermore, there is also a significant positive correlation between both independent variables (r=0.434, p-value<.000).

By using the enter method, a multiple linear regression was completed to better understand the nature and degree of association between the predictor variables and the criterion variable for each stimulus (Appendix 4).

Considering the assumptions underlying the regression model, the model is valid without any restrictions for both stimuli, since all the assumptions have been verified. First, there is independence of the residuals (Durbin-Watson $_S$ = 2.078; Durbin-Watson $_{MC}$ = 1.894) and the error term is approximately normal distributed (histogram of the residuals). Also, there is homoscedasticity across the data, which means that the variance of the error term is constant. Finally, the mean of the error term is 0 ($E\{\varepsilon_i\}=0$) and do not occur multicollinearity effects, which means that intercorrelations amongst the predictors are not very high (condition index <15).

By analysing each stimulus separately, even if in both stimuli the model is significant (ρ-value S=.000; ρ-value MC=.000), the variation of purchase intention is better explained by the standardized shirt (R^2_S=.436 > R^2_{MC}=.317), where 43.6% of the total variation in purchase intention is accounted by the predictors' variation. Considering the unstandardized coefficients, it is possible to conclude that both predictors have a positive and statistically significant effect on PI in both stimuli. In the standardized stimulus, when the extrinsic benefit is changed by one unit, but the intrinsic benefit is held constant, PI is expected to change on average and in the same direction 0.513 (β=.513, ρ-value=.000). On the other hand, when the intrinsic benefit is changed by one unit, but the extrinsic benefit is held constant, PI is expected to change on average and in the same direction 0.341 (β=.341, ρ-value=.000). Finally, in the MC stimulus, on average, when the extrinsic benefit increases one unit, while the intrinsic benefit is held constant, PI increases 0.415 (β=.415, ρ-value=.000) and when the intrinsic benefit increases one unit, while the extrinsic benefit is held constant, there is an increase of 0.439 on PI (β=.439, ρ-value=.000). Thus, **H1 is validated** and it would also be confirmed for the standardized products.

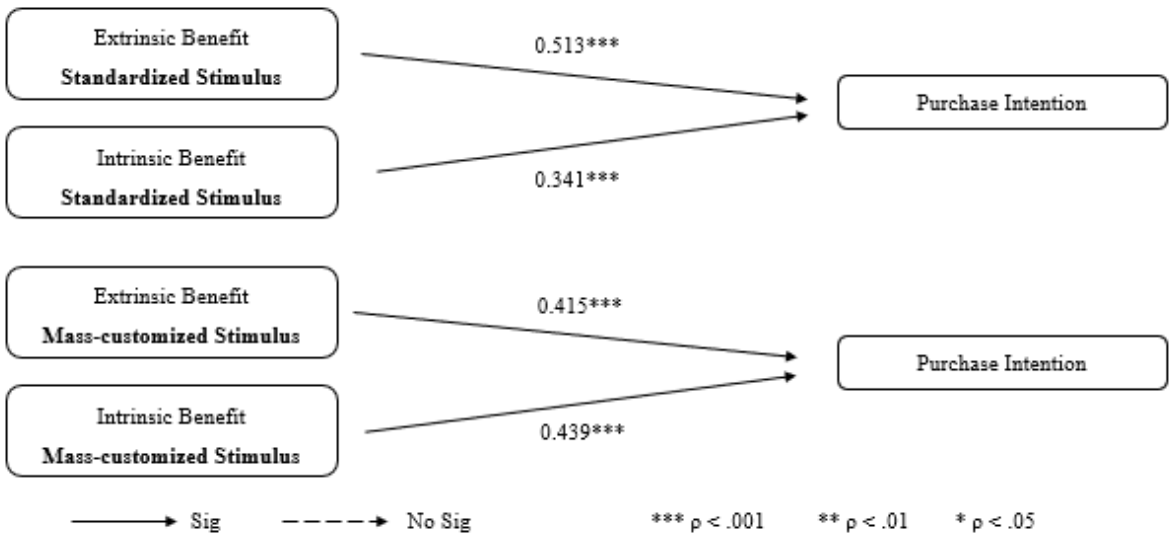


Figure 3 – H1 Results: statistical model with the non-standardized regression coefficients.

Further analysis: The effect of having or not having customization on Purchase Intention

$$H_0: \mu_{MC} = \mu_S$$

An independent sample t test was conducted to determine whether PI was different for the MC stimulus as compared with the standardized one. First, considering the results obtained in the Levene's test there is indication of homogeneity (*Levene* = 0.489; ρ-value = 0.485). Thus, the t test based on *equal variances assumed* was used. The t value is -3.184 and gives a probability

of 0.002, which is less than the significance level of 0.05. Therefore, H_0 is rejected. Since the mean for standardized is 4.4108 and the mean for MC is 4.8898, the PI is significantly greater with customization than without having the option of customization – indicating that there are differences between the means of PI depending on whether it is possible or not to customize the product.

a) Bivariate Regression Analysis: *The type of perceived benefit – extrinsic and intrinsic – has a different effect on the purchase intention for mass-customized products.*

$$H_0: \beta_{\text{Extrinsic Benefit}} = \beta_{\text{Intrinsic Benefit}}$$

To test if the type of perceived benefit has a different effect on purchase intention, the extrinsic and intrinsic benefits were tested into two distinct linear regressions (Appendix 4).

Starting with the impact of the extrinsic benefit on purchase intention, all the assumptions underlying the regression model were verified for both stimuli. First, there is a linear association between the independent variable and dependent variable (r_S=.0.594, ρ-value=.000; r_{MC}=.468; ρ-value=.000). Second, the residuals are not correlated (Durbin-Watson $_S$ = 2.152; Durbin-Watson $_{MC}$ = 1.928) and the variance of the error term is constant. The mean of the error term is 0 and it is approximately normal distributed.

Bearing in mind the MC stimulus, the model explains 21.9% of the variation of purchase intention (R^2=0.219). By doing the ANOVA test the model is also significant (F(1;185) = 51.790; ρ-value <.001). By rejecting the H_0 (β=0) of the coefficients model, at a confidence level of 95%, the extrinsic benefit has a positive significant impact on PI for MC products (ρ-value<.001). In fact, an increase of 1 unit on the extrinsic benefit leads to an increase of 0.612 on PI for MC shirts (β=.612).

Considering the standardized model, the model with this independent variable has a R^2 of 0.353, which means that this predictor explains 35.3% of the variance of purchase intention. By doing the ANOVA test the model is significant (F(1;183) = 99.839; ρ-value<.001). Further, at a level of significance of 5%, the effect of the extrinsic benefit on PI is statistically significant (ρ-value<.001). Specifically, an increase of one unit of extrinsic benefit leads to an increase of 0.701 on purchase intention for standardized shirts (β=.701).

Moving to the effect of the intrinsic benefit on purchase intention, the regression model is also valid without any restrictions. There is a linear association between the independent variable

and dependent variable (r_S=.540, ρ-value=.000; r_{MC}=.485; ρ-value=.000). There is independence of observations (Durbin-Watson $_S$ = 1.904; Durbin-Watson $_{MC}$ = 1.869) and the error term is approximately normal distributed. The data shows homoscedasticity and the mean of the error term is 0.

Considering the MC stimulus, the model is significant (F(1;185) = 56.781; ρ-value <.001) and explains 23.5% of the variance of purchase intention (R^2=.235). Also, the intrinsic benefit has a statistically significant positive effect on purchase intention for MC shirts (β=.613; ρ-value <.001) – purchase intention for MC shirts increases 0.613, with an increase of one unit on intrinsic benefit.

For the standardized stimulus, the model is also significant (F(1;183) = 75.377; ρ-value <.001) and explains better the variance of purchase intention (R^2_S = .292 > R^2_{MC} = .235). Specifically, 29.2% of the variance in purchase intention is accounted by the variation on the intrinsic benefit. Additionally, the intrinsic benefit has a statistically significant positive effect on PI (β=.559; ρ-value <.001). In fact, purchase intention for standardized shirts increases 0.559 with an increase of one unit in intrinsic benefit.

The values obtained for $\beta_{\text{Extrinsic Benefit}}$ and for $\beta_{\text{Intrinsic Benefit}}$ are not equal in both stimuli, which makes possible to conclude that the effect of the extrinsic benefit is not equal to the effect of the intrinsic benefit on PI. Thus, **H1a is validated** and it would also be valid for the case of standardized products.

b) Bivariate Regression Analysis: *The extrinsic benefit has a larger effect on purchase intention for mass-customized products than the intrinsic benefit.*

$$H_0: \beta_{\text{Extrinsic Benefit}} \leq \beta_{\text{Intrinsic Benefit}}$$

Having in mind the two bivariate regressions previously described (H1a), it was possible to conclude that the different types of perceived benefits have a different effect on purchase intention. Considering the MC shirt, the model that better explains the variation of purchase intention is the one that has the intrinsic benefit as independent variable ($R^2_{\text{Extrinsic Benefit}}$ =.219 < $R^2_{\text{Intrinsic Benefit}}$ =.235). Additionally, $\beta_{\text{Extrinsic Benefit}}<\beta_{\text{Intrinsic Benefit}}$, which means that the intrinsic benefit affects more the purchase intention for MC products than the extrinsic benefit. Thus, **H1b is not validated**.

Oppositely, for the standardized shirt the model that better explains the variation of purchase intention is the one that has the extrinsic benefit as independent variable ($R^2_{\text{Extrinsic Benefit}}$ =.353>

$R^2_{Intrinsic\ Benefit}$ =.292). Moreover, $\beta_{Extrinsic\ Benefit} > \beta_{Intrinsic\ Benefit}$, which means that the extrinsic benefit affects more the purchase intention than the intrinsic benefit. Thus, H1b would be validated for the standardized products.

Finally, another relevant result is the fact of the difference between the extrinsic coefficient and the intrinsic coefficient be more sharped for the standardized shirt than for the MC shirt. In the standardized case that difference equals 0.035, while in the MC case that difference is only equal to 0.001, which means that in the MC shirt both benefits have slightly the same effect on PI.

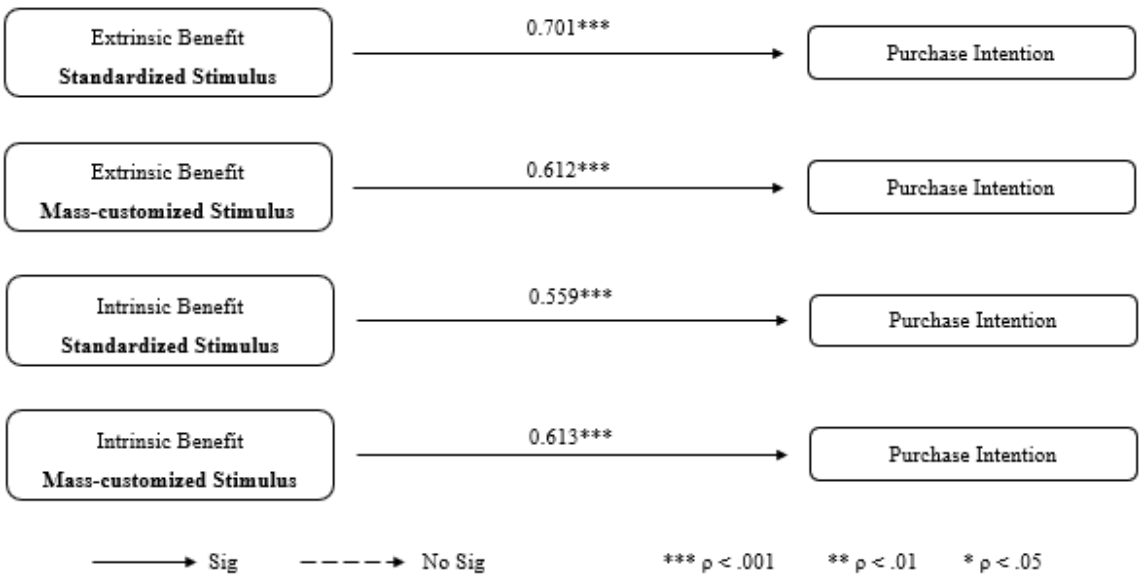


Figure 4 – H1a and H1b Results: statistical model with the non-standardized regression coefficients.

4.3.2 Hypothesis 2

Multiple Linear Regression Analysis: *The customer's need for uniqueness is negatively affected by the perceived benefits – extrinsic and intrinsic - of a mass-customized product.*

$$H_0: \beta_{Extrinsic\ Benefit} \geq 0 \wedge \beta_{Intrinsic\ Benefit} \geq 0$$

To study the impact of both predictors on CNFU a multiple linear regression analysis was completed for both stimuli, by using the enter method (Appendix 4).

In order to determine if there is an association between each predictor and the outcome variable, a Pearson correlation analysis had been performed. Considering both stimuli, the results from the test showed a significant positive correlation between the intrinsic benefit and CNFU (r_S=.136, ρ-value=.033; r_{MC}=.191; ρ-value=.004). Oppositely, for both stimuli, the correlation

between the extrinsic benefit and CNFU is not significant (r_S=.033, ρ-value=.330; r_{MC}=.044; ρ-value=.276). Thus, **H2 is not entirely supported**, since only the intrinsic benefit has an association with the outcome variable.

The assumptions underlying the regression model were verified for both stimuli. First, the error terms are independent of each other (Durbin-Watson $_S$ = 2.007; Durbin-Watson $_{MC}$ = 1.697). Further, the variance of the error term is constant and no multicollinearity effects are register. The mean of the error term is 0 and it is approximately normal distributed.

Considering the MC stimulus, the output of its model is not decent. The R^2 equals 0.038, which means that both predictors only explain 3.8% of the variance of CNFU. This indicates that there are many other factors influencing CNFU. Nonetheless, by doing the ANOVA test, the model is significant in predicting the outcome variable (F(2;184) = 3.679; ρ-value <.05). While, at a confidence level of 95%, the extrinsic benefit does not have a statistically significant effect on CNFU (β=-.030, ρ-value=.549), the intrinsic benefit does have it (β=.126, ρ-value=.009). Specifically, on average, a one unit increase on intrinsic benefit, which means more intrinsic benefit perceived, increases PI for MC shirts in 0.126 units. Thus, **H2 is not validated**.

Having in mind the standardized stimulus, the R^2 of its model is also extremely low (R^2=.020), but oppositely to the MC customized stimulus, this model is not significant in predicting CNFU (F(2;182) = 1.848; ρ-value=.161). In addition, at a level of significance of 5%, neither the extrinsic benefit or the intrinsic benefit has a statistically significant effect on CNFU ($\beta_{\text{Extrinsic Benefit}}$=-.023, ρ-value=.606; $\beta_{\text{Intrinsic Benefit}}$=.074, ρ-value =.063). Thus, H2 would not be validated for the case of standardized products.

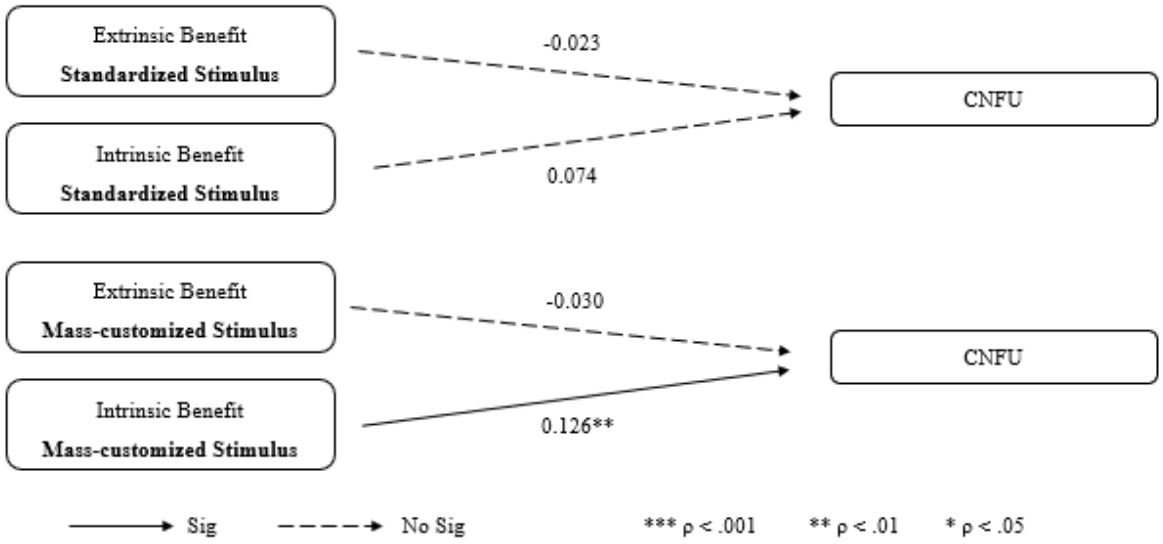


Figure 5 – H2 Results: statistical model with the non-standardized regression coefficients.

4.3.3 Hypothesis 3

Linear Regression Analysis: *Customer's need for uniqueness will be positively related to the purchase intention for mass-customized products.*

$$H_0: \beta_{CNFU} \leq 0$$

To study the effect of CNFU on purchase intention for MC products, a bivariate regression analyze was performed using the enter method (Appendix 4).

A Pearson correlation analysis had been performed for both stimuli to check if there is an association between CNFU and purchase intention. From the results obtained, it is possible to conclude that the correlation between CNFU and purchase intention is only significant in the standardized stimulus (r_S=.147, ρ-value=.023; r_{MC}=.000, ρ-value=.498).

All the assumptions underlying the regression model were verified for both stimuli. The independence of the residuals was confirmed (Durbin-Watson $_S$ =2.059; Durbin-Watson $_{MC}$ =2.036) and the variance of the error term is constant. The mean of the error term is 0 and it is approximately normal distributed.

Considering the MC stimulus, the R^2 of its model is extremely low (R^2=.000), not explaining the variation of purchase intention for MC shirts. Further, the model is not significant in predicting purchase intention (F(1;185) = 0.000; ρ-value=.995). Considering the unstandardized coefficient, at a significance level of 5%, CNFU does not have a statistically significant effect on PI (β=-.001, ρ-value=.995). Thus, **H3 is not validated**. This result makes possible to conclude that mediation is not likely.

Considering the standardized stimulus, the R^2 of the model equals 0.022, explaining only 2,2% the variation of purchase intention for standardized shirt, and it is statistically significant (F(1;183) = 4.046; ρ-value=0.046). Further, CNFU has a statistically significant effect on purchase intention (β=.323, ρ-value<.05), which means that, on average, PI for standardized shirts increases 0.323 with an increase of one unit on CNFU. Thus, H3 would be true for the standardized case.

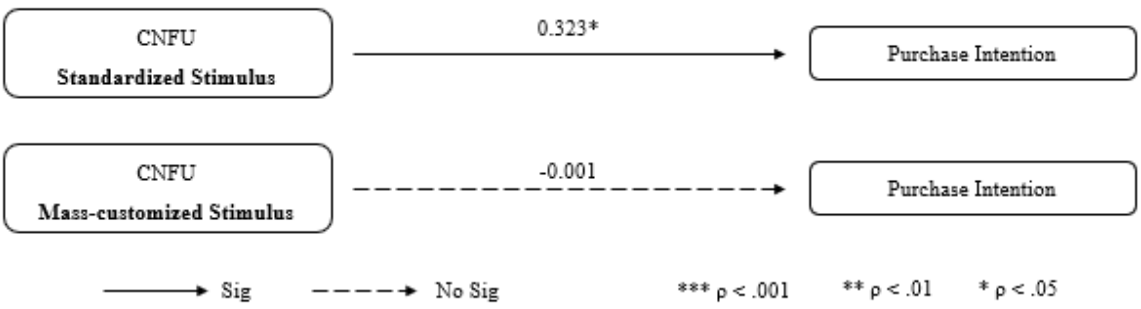


Figure 6 – H3 Results: statistical model with the non-standardized regression coefficients.

4.3.4 Hypothesis 4

Mediation: *The relationship between the overall perceived benefits of a mass-customized product and the resulting purchase intention of the customer, is mediated by the customer's need for uniqueness.*

In this case, a mediator (CNFU) is expected to explain the relationship between the independent variable (overall perceived benefits) and the dependent variable (PI) – accordingly, a simple mediation model is studied (model 4). To perform the mediation analysis, it was considered the PROCESS macro for SPSS, which reflects a regression-based method to mediation (Appendix 4).

As previously mentioned, overall perceived benefits (OPB) are expected to affect CNFU (a), which in turn would influence PI for MC products (b). This is named the indirect effect (ab) of overall perceived benefits on purchase intention for MC products via CNFU. Moreover, there is the impact of overall perceived benefits on PI for MC products, while keeping CNFU unchanged, which is called the direct effect (c'). Finally, when uniting both effects – indirect and direct – the total effect (c) is attained.

Considering the MC stimulus (Table 4), at a level of significance of 5%, the direct effect of overall perceived benefits on CNFU is positive, but not statistically significant (a=.1004;

ρ=0.0555). Further, the direct effects of overall perceived benefits and CNFU on PI are opposite (c'=.8722; b=-.1718) and only the effect of overall perceived benefits on PI is statistically significant (ρ<.001).

Regarding the possibility of CNFU being a mediator on the relationship between the overall perceived benefits and PI for MC products, the indirect effect equals -0.0173 (ab) within a bootstrapping confidence interval of -0.0554 to 0.0086. The CI includes zero, which indicates that the indirect effect is not statistically significant. Accordingly, the impact of overall perceived benefits without a mediator and the impact with CNFU as mediator may be equivalent, which means that the entry of the mediator does not make the effect of overall perceived benefits on PI significantly different. As conclusion, **H4 is not validated**.

Finally, the total effect (c) equals 0.8550, which is statistically significant, and indicates that the model is explaining only 31.64% of the variance of purchase intention for MC shirts, meaning that many other factors are influencing PI for MC products.

Considering the standardized stimulus (Table 5), the direct effect of overall perceived benefits on CNFU is not statistically significant (ρ=.1685). Further, the direct effect of CNFU on purchase intention is not statistically significant (ρ=.1481) Oppositely, the direct effect (c'=.8283) of overall perceived benefits on PI is statistically significant (ρ<.001). Further, the indirect effect indicates that CNFU does not mediate the relationship between OPB and PI for standardized products (ab =.0106; CI = [-0.0072 to 0.0463]). Thus, H4 would not be true for the case of standardized products. Finally, the total effect (c) equals 0.8388, which is statistically significant, and indicates that the model is explaining 43.02% of the variance of purchase intention for standardized shirts.

	Direct effect paths	Direct effect	Lower CI	Upper CI
a	OPB – CNFU	0.1004	-0.0024	0.2033
b	CNFU – PI	-0.1718	-0.4284	0.0848
c'	OPB – PI	0.8722***	0.6885	1.0560
	Indirect effect paths	Indirect effect	Lower CI	Upper CI
ab	OPB – CNFU – PI	-0.0173	-0.0554	0.0086
	Total effect			
c = (c' + ab)	0.8550***			

***ρ < .001 **ρ < .01 *ρ < .05

Table 4 – Mediation role of CNFU on the relationship between OPB and PI for MC products.

	Direct effect paths	Direct effect	Lower CI	Upper CI
a	OPB – CNFU	0.0592	-0.0253	0.1437
b	CNFU – PI	0.1784	-0.0639	0.4206
c’	OPB – PI	0.8283***	0.6871	0.9694
	Indirect effect paths	Indirect effect	Lower CI	Upper CI
ab	OPB – CNFU – PI	0.0106	-0.0072	0.0463
	Total effect			
c = (c’ + ab)	0.8388***			

***ρ < .001 **ρ < .01 *ρ < .05

Table 5 – Mediation role of CNFU on the relationship between OPB and PI for standardized products.

CHAPTER 5: CONCLUSIONS AND LIMITATIONS

Chapter 5 presents the conclusions of the study, as well as the academic and managerial implications related with the results. Finally, it records the limitations and suggests further research in the future.

5.1 Main Findings & Conclusions

RQ1: What is the impact of perceived benefits – extrinsic and intrinsic - on purchase intention for mass-customized products?

The main ambition of this dissertation was to conclude the role of the extrinsic and intrinsic benefits on purchase intention for MC products, in order to provide useful insights on how to manage a MC program. This is particularly important, since a comprehensive understanding of value-generating factors is fundamental for developing effective MC toolkits and to ensure the long-term success of mass customization.

The results indicate that both perceived benefits – extrinsic and intrinsic – positively influence purchase intention for MC products, which means that both, the product (related with extrinsic benefit) and the experience (related with intrinsic benefit) support the willingness to purchase a MC option. Accordingly, consumers should have a stronger purchase intention towards products that they perceive to have higher extrinsic and intrinsic benefits. In this sense, related with the extrinsic benefits, it is important to safeguard the aesthetic and functional fit between MC products and consumer preferences. Since this fit is high when consumer's preferences are matched by the product attributes (Franke & Schreier, 2008), special attention and caution must be given to the toolkits, in order to ensure the product's usefulness and the task accomplishment. Further, related with the intrinsic benefits, it is important to defend the enjoyment and the experience immediate pleasure from creating and using the MC product (Randall et al., 2007).

Considering the results obtained for the standardized shirt, the two types of perceived benefits explain more the variance of purchase intention (higher R^2), as well as the extrinsic and intrinsic perceived benefits have a significant positive effect on PI. Nonetheless, the PI is significantly greater with customization than without having the option of customization.

RQ1.1: Which benefits extrinsic or intrinsic, are the major reasons for people shopping mass-customized products?

In order to identify whether the extrinsic benefit and intrinsic benefit would have a different role on purchase intention for MC products and to conclude which one would have the higher effect, both benefits were tested into two distinct linear regressions. From the results, it can be

concluded that the effect of each benefit on PI for MC products is different.

Considering the specific case of MC products, the type of perceived benefit that explains better the variance of purchase intention is the intrinsic one. Additionally, the purchase intention for MC products is surprisingly higher affected by the intrinsic benefit than by the extrinsic benefit. Nonetheless, this difference is minimal since the difference between the intrinsic coefficient and the extrinsic coefficient is only equal to 0.001. This result goes against the leading argument used for a potential value increase of MC products.

Oppositely, for the standardized shirt, the variance of purchase intention is better explained by the extrinsic benefit. For this case, $\beta_{\text{Extrinsic Benefit}} > \beta_{\text{Intrinsic Benefit}}$, which means that the extrinsic benefit affects more the purchase intention than the intrinsic benefit. The results obtained for the standardized product, give light and strength to the role of the intrinsic benefits in the context of mass customization.

RQ2: What is the relationship between perceived benefits (extrinsic and intrinsic) and customer's need for uniqueness?

Considering the specific case of MC products, the two types of perceived benefits are extremely weak on explaining CNFU, which implies that CNFU has more important drives. The intrinsic benefit positively affects CNFU and the extrinsic benefit has no influence on CNFU. Thus, surprisingly, perceiving or not perceiving extrinsic benefits will not impact CNFU. This makes possible to conclude that the aesthetic and functional fit between the MC product and the consumer preferences (extrinsic benefit), does not affect CNFU. Further, the utility derived from the affective states and psychological factors that the MC product generates (e.g. accomplishment, pride feelings of having made it oneself, uniqueness, and differentiation) was expected to satisfy the need to see oneself as being different from others. However, unlike expected, the results state that the intrinsic benefit tends to increase CNFU, which means that the customer's self-perception of uniqueness is not satisfied. A possible explanation for this unexpected result is the perceived costs related to the configuration process in this study have not been offset by the benefits (Broekhuizen & Alsem, 2002).

For the standardized shirt, the two types of perceived benefits are also extremely weak on explaining CNFU and none of the benefits, extrinsic or intrinsic, have a significant effect on CNFU. Thus, perceiving or not perceiving extrinsic and intrinsic benefits from a standardized product will not impact CNFU.

RQ3: Does customer's need for uniqueness explains the relationship between the overall perceived benefits and purchase intention for mass-customized products?
The Hayes macro PROCESS was used to test whether or not CNFU is a significant mediator, and indeed CNFU cannot be a significant mediator.

Considering the specific case of MC products, the total effect of overall perceived benefits on PI is 0.8550 and it is statistically significant. From this value, 0.8722 constitutes the direct effect of OPB on PI for MC products (not considering the mediation effect), which is statistically significant. Bearing in mind the rest, -0.0173 constitutes the indirect effect of OPB on PI for MC products (considering the mediation effect), which is not statistically significant. In fact, the impact of OPB on PI without a mediator and the impact with CNFU as a mediator may be equivalent, which means that CNFU does not explain the relationship between overall perceived benefits and the likelihood that the customer purchases a MC product. For the standardized shirt, the total effect of overall perceived benefits on PI is also statistically significant, where the direct effect is statistically significant, and the indirect effect translates that the effect of overall perceived benefits through CNFU on PI is positive, but not significant effect.

RQ4: What is the impact of customer's need for uniqueness in purchase intention for mass-customized products?
Considering the specific case of MC products, the impact of CNFU on purchase intention is not statistically significant, which makes possible to conclude that CNFU does not have any influence on purchase intention for MC products. This result is completely opposite to what was expected in the literature, where customers are willing to purchase improvements that satisfy their individual's needs. Thus, it would be expected that an increase of one unit in CNFU would lead to an increase of one unit in the purchase intention for MC products.
Considering the standardized shirt, on one hand, CNFU increases significantly the purchase intention but it is extremely weak on explaining its variance. On the other hand, the direct effect of the mediation regression is not statistically significant. Thus, CNFU has also no influence on PI for standardized products.

5.2 Managerial Implications

This research highlights some relevant insights on how to improve the customizing options associated with a MC product, driving the direction of product managers' strategy before developing a MC program. Firstly, both extrinsic and intrinsic benefits increase the PI for MC

products, but oppositely to the standardized products, the intrinsic benefit explains better the variance of purchase intention for MC products and has a higher effect on it. Since the long-term triumph of any customization program is ensured by the delivery of positive value to customers (Schreier, 2006), product managers should be aware of it and pay attention to the MC experience, that is mainly related with the intrinsic benefits of a MC product. More, the two types of benefits perceived from a MC product are extremely weak on explaining CNFU, and the extrinsic benefit has even no influence on CNFU. Also, CNFU does not have a significant influence on PI for MC products, not predicting well this variable. Lastly, CNFU is not a variable that explains significantly the relationship between overall perceived benefits and purchase intention for MC products.

5.3 Academic Implications

Academically, this study starts approaching empirically the extent to which resulting products' uniqueness is important in the MC context, as well as it performs a deeper analysis of customer benefit in the MC field. Overall, it begins to explore underlying factors influencing purchase intention for MC products. Also, as further analysis, this study controls and enhances the role of customization, since the analysis performed for the MC stimulus was also completed for a standardized stimulus.

Finally, not yet, MC products had been tested in the shirt category, even though this is a disruptive category and some companies already have successfully created a mass customization program within it. This dissertation fills this research gap.

5.4 Limitations and Further Research

As this study has an academic purpose, this dissertation is restricted by limited money and timeframe. However, there are some other limitations that must be highlighted and that may reflect important recommendations for further research.

First of all, the results obtained from data collection cannot be generalized from the sample to the population, since non-probability sampling led to biased results that do not represent the population. There is a clear female predominance (61.6%), the sample is mostly aged between 18-24 (72%) and there is a significant percentage of Portuguese (84.4%) and students (55.6%). Additionally, the sample size is relatively low – in total, only 372 valid responses were collected. To become more representative, further research should have a higher sample size.

Second, the application area of the study is limited to one product category – shirts. Thus, no conclusions can be made about whether the extrinsic and intrinsic perceived benefits really have an impact on customer's purchase intention for MC products, or even if the category has an impact on the output. Thus, in further research, more product categories can be reached to provide more general results.

Third, the study is limited to one type of MC product (modular products). It would be interesting to approach, at least, two types of MC products (e.g. tailor-made or adaptative products) to explore the differences that may arise on results within the context of mass customization.

Fourth, a toolkit is a design interface that allows trial-and-error testing and provides a simulated assessment on the outcome (Fiore et al., 2004). However, due to software constraints, the toolkit used did not enable trial-and-error experimentation. This may have compromised the success of mass customization, since participants may have perceived more additional costs than benefits. Without trial-and-error, users may bear additional psychological costs by experiencing uncertainty or by having limited insight into their preferences (West, Brown, & Hoch, 1996; Kramer, 2007). In the limit, participants perhaps have failed to recognize the opportunities offered by the MC shirt (Hill, 2003). In this sense, in further research, trial-and-error should be included. Additionally, the online survey did not provide all the possible attributes that can be customized for shirts (e.g. placket, pleats, bottom, elbow patches, etc), and for the 5 modules selected (fabric, collar, cuff, sleeve, fit and pocket) were not presented all the possible options available to customize them. Parallel to this, some images showed in the online survey could have been misunderstood. In this sense, in further research, the toolkit can be improved.

Fifth, for this study purchase intention was thought to be a representative estimation of purchase behaviour. Therefore, it is not possible to take final conclusions about the actual purchase behaviour from the results presented.

Sixth, CNFU is not a relevant factor to explain the relationship between the OPB and PI for MC products, since the mediation model does not explain the mediation role of this variable. In further research, it would be relevant to study for other mediators, such as customer involvement (Kamali and Loker, 2002) or customer's knowledge of the product (Huffman & Kahn, 1998), and include them in the analyze to make it more explicative.

REFERENCE LIST

Apposta (2018). Apposta (Create a Shirt). Retrieved from https://www.apposta.com/sp/home.3sp

Ahlstrom, P., & Westbrook, R. (1995). Implications of Mass Customization for Operations Management. *International Journal of Operations & Production Management*, 19(3), 262–274.

Agrawal, M., Kumaresh, V. & Mercer, G.A. (2001). The False Promise Of Mass Customization. *The McKinsey Quarterly*, 38(3), 62–71.

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work And/Or Fun: Shopping Measuring Value Hedonic And Utilitarian. *Journal of Consumer Research*, 20(4), 644–656.

Belk, R. W. (1988). Possessions And The Extended Self. *Journal of Consumer Research*, 15(2), 139–168.

Broekhuizen, T., & Alsem, K. (2002). Success Factors for Mass Customization: A Conceptual Model. *Journal of Market-Focused Management*, 9(1), 177–179.

Carbone, L. P., & Haeckel, S. H. (1994). Engineering Customer Experiences. *Journal of Marketing Management*, 3(3), 8–19.

Chan, T. (1996). Concerns For Envirnonmental Issues And Consumer Purchase Preferences: A Two-Country Study. *Journal of International Consumer Marketing*, 9, 37–41.

Chang, T. Z., & Wildt, A. R. (1994). Price, Product Information, And Purchase Intention: An Empirical Study. *Journal of the Academy of Marketing Science,* 22(1), 16–27.

Chiu, C. M., Wang, E. T. G., Fang, Y. H., & Huang, H. Y. (2014). Understanding Customers' Repeat Purchase Intentions In B2C e-commerce: The roles Of Utilitarian Value, Hedonic Value And Perceived Risk. *Information Systems Journal*, 24(1), 85–114.

Creswell, J. (2009). Research Design: Qualitative, Quantitative, And Mixed Method Approaches. SAGE Publication Sage CA: Los Angeles, CA.

Crowley, A. E., Spangenberg, E. R., & Hughes, K. R. (2003). Measuring The Hedonic And Utilitarian Dimensions Of Attitudes Toward Product Categories. *Journal of Marketing Research*, *3*(3), 239–249.

Da Silveira, G., Borenstein, D., Fogliatto, F. (2001). Mass Customization : Literature Review And Research Directions. *International Journal of Production Economics*, 72(49), 1–13.

Davis, S. M. (1989). From "Future Perfect": Mass customizing. *Planning Review*, 17(2), 16–21.

Deng, X., Hui, S. K., & Hutchinson, J. W. (2010). Consumer Preferences For Color

Combinations: An Empirical Analysis Of Similarity-Based Color Relationships. *Journal of Consumer Psychology*, 20(4), 476–484.

Deci, E.L. (1975). Intrinsic Motivation. Plenum Press, New York.

Du, X., Jiao, J., & Tseng, M. (2000). A Methodology Of Developing Product Family Architecture For Mass Customization. *Journal of Intelligent Manufacturing*, 1, 437–443.

Duray, R., Ward, P. T., Milligan, G. W., & Berry, W. L. (2000). Approaches To Mass Customization: Configurations And Empirical Validation. *Journal of Operations Management*, 18(6), 605–625.

Endo, S., & Kincade, D. H. (2008). Mass Customization For Long-Term Relationship Development: Why Consumers Purchase Mass-customized Products Again. *Qualitative Market Research: An International Journal*, 11(3), 275–294.

Evans, J. R., & Mathur, A. (2005). The Value Of Online Surveys: A Look Back And A Look Ahead. *Internet Research*, 15(2), 195–219.

Fiore, A., Lee, S., Kunz, G., & Campbell, J. (2001). Relationships Between Optimum Stimulation Level And Willingness To Use Mass Customisation Options. *Journal Of Fashion Marketing and Management*, 5(2), 99–107.

Fiore, A. M., Lee, S., & Kunz, G. (2004). Individual Differences, Motivations, And Willingness To Use A Mass Customization Option For Fashion Products. *European Journal of Marketing*, 38(7), 835–849.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, And Behavior: An Introduction To Theory And Research. Addison-Wesley.

Follows, S. B., & Jobber, D. (2000). Environmentally Responsible Purchase Behaviour: A Test Of A Consumer Model. *European Journal of Marketing*, 34(6), 723–746.

Franke, N., & Frank, P. (2004). Value Creation By Toolkits For User Innovation And Design: The Case Of The Watch Market. *The Journal of Product Innovation Management*, 21, 401–415.

Franke, N., Keinz, P., & Steger, C. J. (2009). Testing The Value Of Customization: When Do Customers Really Prefer Products Tailored To Their Preferences? *Journal of Marketing*, 73(5), 103–121.

Franke, N., & Piller, F. T. (2003). Key Research Issues In User Interaction With User Toolkits In A Mass Customisation System. *International Journal of Technology Management*, 26(5), 578.

Franke, N., & Schreier, M. (2008). Product Uniqueness As A Driver Of Customer Utility In Mass Customization. *Marketing Letters*, 19(2), 1–15.

Franke, N., & Schreier, M. (2010). Why Customers Value Self-Designed Products: The Importance Of Process Effort And Enjoyment. *Journal of Product Innovation Management*, *27*(7), 1020–1031.

Franke, N., Schreier, M., & Kaiser, U. (2010). The "I Designed It Myself" Effect in Mass Customization. *Management Science*, 56(1), 125–140.

Franke, N., & Von Hippel, E. (2003). Satisfying Heterogeneous User Needs Via Innovation Toolkits: The Case Of Apache Security Software. *Research Policy*, 32(7), 1199–1215.

Fromkin, H. L. (1970). Effects Of Experimentally Aroused Feelings Of Indistinctiveness Upon Valuation Of Scarce And Novel Experiences. *Journal of Personality and Social Psychology*, 16(3), 521–529

Ghosh, M., Dutta, S., & Stremersch, S. (2006). Customizing Complex Products: When Should the Vendor Take Control? *Journal of Marketing Research*, 43(4), 664–679.

Gilmore, J.H. & Pine, B.J. II (1997). The Four Faces Of Mass Customization. *Harvard Business Review*, 75(1), 91–101.

Gutman, J. (1997). Means End Chains As Goal Hierarchies. *Psychology & Marketing*, *14*, 545–560.

Harrison, R. L., & Reilly, T. M. (2011). Mixed Methods Designs In Marketing Research. *Qualitative Market Research: An International Journal*, 14(1), 7–26.

Hayes, A. F. (2013). Introduction To Mediation, Moderation, And Conditional Process Analysis: A Regression-Based Approach. *Journal of Educational Measurement*, (3), 1–39.

Hayes, A. F., & Preacher, K. J. (2014). Statistical Mediation Analysis With A Multicategorical Independent Variable. *British Journal of Mathematical and Statistical Psychology*, 67, 451–470.

Hill, K. (2003). Customers Love/Hate Customization. CRM-Daily.com [available at: http://www.crmdaily.com]

Holbrook, M. B., & Hirschman, E. C. (1982). The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun. *Journal of Consumer Research*, *9*(2), 132.

Hockerty (2018). Hockerty (Design Your Shirt). Retrived from: https://www.hockerty.com/en-us/

Hsu, C. L., Chang, C. Y., & Yansritakul, C. (2017). Exploring Purchase Intention Of Green Skincare Products Using The Theory Of Planned Behavior: Testing The Moderating Effects Of Country Of Origin And Price Sensitivity. *Journal of Retailing and Consumer Services*, 34, 145–152.

Hu, S. J. (2013). Evolving Paradigms Of Manufacturing: From Mass Production To Mass Customization And Personalization. *Procedia CIRP*, 7, 3–8.

Huffman, C., & Kahn, B. E. (1998). Variety For Sale: Mass Customization Or Mass Confusion? *Journal of Retailing*, 74(4), 491–513.

Kahn, B. E. (1998). Dynamic Relationships With Customers: High-Variety Strategies. *Journal of the Academy of Marketing Science*, 26(1), 45–53.

Kamali, N., & Loker, S. (2002). Mass Customization: Online Consumer Involvement In Product Design. *Journal of Computer-Mediated Communication*, 7(4).

Keller, K. L. (2001). Building Customer-Based Brand Equity. *Marketing management*. 10(2), 14-19.

Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-Based Adoption of Mobile Internet: An Empirical Investigation. *Decision Support Systems*, 43(1), 111–126.

Kramer, T. (2007). The Effect Of Measurement Task Transparency On Preference Construction And Evaluations Of Personalized Recommendations. *Journal of Marketing Research*, 44(2), 224–233.

Lalot, F., Cantarella, M., Zerhouni, O., Joly, E., Quiamzade, A., Falomir-Pichastor, J. M., Bègue, L. (2017). Assessing Private And Public Need For Uniqueness: Validation of French Versions of the Need for Uniqueness (NFU) and Self-Attributed Need for Uniqueness (SANU) Scales. *Journal of Personality Assessment*, *3891*, 1–11.

Lander, E., & Liker, J. K. (2007). The Toyota Production System and Art: Making Highly Customized And Creative Products The Toyota Way. *International Journal of Production Research*, 45(16).

Lynn, M., & Harris, J. (1997a). Individual Differences In The Pursuit Of Self-Uniqueness Through Consumption. *Journal of Applied Social Psychology*, 27(21), 1861–1883.

Lynn, M., & Harris, J. (1997b). The Desire For Unique Consumer Products: A New Individual Differences Scale. *Psychology and Marketing*, 14(6), 601–616.

Maroco, J., & Garcia-Marques, T. (2006). Qual A Fiabilidade Do Alfa De Cronbach? Questões Antigas E Soluções Modernas? *Laboratório de Psicologia*, 4(1), 65–90.

Moreau, C. P., & Herd, K. B. (2010). To Each His Own? How Comparisons with Others Influence Consumers' Evaluations of Their Self-Designed Products. *Journal of Consumer Research*, *36*(5), 806–819.

Nail, P. R. (1986). Towards An Integration Of Some Models And Theories Of Social Response. *Psychological Bulletin*, 100, 190–206.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Park, M., & Yoo, J. (2018). Benefits Of Mass-Customized Products: Moderating Role Of Product Involvement And Fashion Innovativeness. *Heliyon*, *4*(2), 2405–8440.

Petrick, J. F. (2002). Experience Use History As A Segmentation Tool To Examine Golf Travellers' Satisfaction, Perceived Value And Repurchase Intentions. *Journal of Vacation Marketing*, 8(4), 332–342.

Piller, F. T. (1998), Kundenindividuelle Massenproduktion,München/Wien.

Piller, F. T. (2004). Mass Customization: Reflections On The State Of The Concept. *International Journal of Flexible Manufacturing Systems*, 16, 313–334.

Pine II, B. J. (1993). Mass Customization: The New Frontier in Business Competition. Harvard Business School Press, Boston.

Pine II, B. J., Victor, B., & Boynton, A. C. (1993). Making Mass Customization Work. *Harvard Business Review*, 71, 108–119.

Randall, T., Terwiesch, C., & Ulrich, K. T. (2007). Research Note - User Design of Customized Products. *Marketing Science*, 26(2), 268–280.

Rogers, E.M. (1995). Diffusion of Innovations. 4th Edition, the Free Press, New York.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. (Pearson Ed). Harlow.

Schiffman, L. G. & Kanuk, L. L. (2007). Consumer Behavior, 9th edition, New Jersey, Prentice Hall.

Schreier, M. (2006). The Value Increment Of Mass-Customized Products: An Empirical Assessment. *Journal of Consumer Behaviour*, 5(11), 317–327.

Simonson, I. (2005). Determinants of Customers' Responses To Customized Offers: Conceptual Framework and Research Propositions. *Journal of Marketing*, 69, 32–45.

Simonson, I., & Nowlis, S. M. (2000). The Role of Explanations and Need for Uniqueness in Consumer Decision Making: Unconventional Choices Based on Reasons. *Journal of Consumer Research*, 27(1), 49–68.

Sharp, J., Peters, J. & Howard, K. (2002) The Management of a Student Research Project (3rd edn). Aldershot: Gower.

Spears, N., & Singh, S. N. (2004). Measuring Attitude Toward The Brand And Purchase Intentions. *Journal of Current Issues and Research in Advertising*, 26(2), 53–66.

Styhre, A. (1996). Mass Customization and Competitive Advantage : The Case Of Printed Circuit Assembly Industry. *IMP Conference (12th)*, 12, 1261–1296.

Sumissura (2018). Sumissura (Design Your Shirt). Retrieved from: https://www.sumissura.com/en-us/women/custom-dress-shirts/personalize

Sweeney, J., & Soutar, G. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220.

Snyder, C. R., & Fromkin, H. L. (1977). Abnormality As A Positive Characteristic: The Development And Validation Of A Scale Measuring Need For Uniqueness. *Journal of Abnormal Psychology*, 86, 5 18–527.

Tang, Z., Luo, J., & Xiao, J. (2011). Antecedents Of Intention To Purchase Mass-Customized Products. *Journal of Product and Brand Management*, 20(4), 316–326.

Tailor Store (2018). Tailor Store (Create Your Shirt). Retrieved from: https://www.tailorstore.com/

Tepper, K., & Hoyle, R. (1996). Latent Variable Models of Need for Uniqueness. *Multivariate Behavioral Research*, 31(4), 467–494.

Tian, K. T., Bearden, W. O., & Hunter, G. L. (2001). Consumers' Need for Uniqueness: Scale Development and Validation. *Journal of Consumer Research*, 28(1), 50–66.

Tian, K. T., & Mckenzie, K. (2001). The Long-Term Predictive Validity of the Consumers' Need for Uniqueness Scale. *Journal of Consumer Psychology*, 10(3), 171–193.

Ulrich, K. (1995).The Role Of Product Architecture In The Manufacturing Firm. *Research Policy*, 24, 419–440.

Varadarajan, P. R. (1992). Marketing's Contribution To Strategy: The View From A Different Looking Glass. *Journal of the Academy of Marketing Science*, 20(4), 335–343.

West, P. M., Brown, C. L., & Hoch, S. J. (1996). Consumption Vocabulary And Preference Formation. *Journal of Consumer Research*, 23, 120–135.

Wind, J., & Rangaswamy, A. (2001). Customerization: The Next Revolution In Mass Customization. *Journal of Interactive Marketing*, 15(1), 13–32.

Zeithaml, Valarie A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52, 2–22.

Zipkin, P. (2001). The Limits Of Mass Customization. *Sloan Manage*, 42(3), 81–87.

APPENDICES

Appendix 1: Survey (English Version)

(Survey's introduction)
Dear Participant,
I'm writing to kindly ask for your collaboration in filling out the following questionnaire, which is part of my Master's thesis. Your participation is very important in order to complete this final stage of my master at Católica Lisbon School of Business and Economics.

The main goal of this questionnaire is to explore the benefits (intrinsic or extrinsic) that more influence customer's purchase intention for mass-customized products, mediating the effect of customer's need for uniqueness.

All data collected will be treated anonymously and will be used only for this dissertation's purpose. There are no right or wrong answers, so please answer as truthfully as possible.

The survey will have a duration of approximately **8 minutes** and it is available in **Portuguese** and **English**.

Thank you for your attention and participation.

Ana Veloso
(Section 1)

1. **Do you usually buy your own shirts?**
   a) Yes
   b) No

End of the survey for people who answer "No"

2. **How often do you use shirts?**
   a) Always
   b) Very frequently
   c) Frequently
   d) Sometimes
   e) Rarely
   f) Very rarely
   g) Never

3. **Self-attributed need for uniqueness**

Please select the option that better completes each statement.

I prefer being _____ different from other people.
a) Extremely
b) Very
c) Considerably
d) Moderately
e) Slightly
f) Little
g) No

Being distinctive is _____ important to me.
a) Extremely
b) Very
c) Considerably
d) Moderately

e) Slightly
f) Little
g) Not

I _____ intentionally do things to make myself different from those around me.

a) Always
b) Very frequently
c) Frequently
d) Sometimes
e) Rarely
f) Very rarely
g) Never

I have a _____ need for uniqueness.

a) Very strong
b) Strong
c) Slightly strong
d) Moderate
e) Slightly weak
f) Weak
g) Very weak

4. **Need for Uniqueness**

Please state your level of agreement with each statement on a scale from 1 (**strongly disagree**) to 7 (**strongly agree**).

When I am in a group of strangers, I am not reluctant to express my opinions.
I find that criticism affects my self-esteem. (*R)
I sometimes hesitate to use my own ideas for fear they might be impractical. (R)
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.
People frequently succeed in changing my mind. (R)
I find it sometimes amusing to upset the dignity of teachers. judges, and "cultured" people.
I like wearing a uniform, because it makes me proud to be a member of the organization it represents. (R)
People have sometimes called me "stuck-up".
Others' disagreements make me uncomfortable. (R)
I do not always need to live by the rules and standards of society.
I am unable to express my feelings if they result in undesirable consequences. (R)
Being a success in one's career means making a contribution that no one else has made
It bothers me if people think I am being too unconventional. (R)
I always try to follow rules. (R)
If I disagree with a superior on his or her views, I usually do not keep it to myself.
I speak up in meetings in order to oppose those whom I feel are wrong.
Feeling "different" in a crowd of people make me feel uncomfortable. (R)
If I must die, let it be an unusual death rather than an ordinary death in bed.
I would rather be just like everyone else than be called a "freak". (R)
I must admit I find it hard to work under strict rules and regulations.
I would rather be known for always trying new ideas than for employing well trusted methods.
It is better always to agree with the opinions of others than to be considered a disagreeable person. (R)
I do not like to say unusual things to people. (R)
I tend to express my feelings publicly, regardless of what others say.
As a rule, I strongly defend my own opinions.

I do not like to go my own way. (R)
When I am with a group of people, I agree with their ideas so that no arguments will arise. (R)
I tend to keep quiet in the presence of persons of higher rank, experience, etc. (R)
I have been quite independent and free from family rule.
Whenever I take part in group activities, I am somewhat of a nonconformist.
In most things in life, I believe in playing it safe rather than taking a gamble. (R)
It is better to break the rules than to always conform with an impersonal society.
*R=Reverse scored

(Section 2 – Stimulus's Presentation)

5. **What is your gender?**
   a) Male
   b) Female

The respondents who selected "Female" will be randomly presented to the women's stimuli and the respondents who selected "Male" will be randomly presented to the Men's stimuli.

Standardized stimuli

Next, you are going to be presented to different options of choice.

(Standardized experience – **Men**)

6. **Please, choose a shirt from the options below**.

(Standardized experience – **Women**)

7. **Please, choose a shirt from the options below.**

Mass-customized stimuli

Next, you are going to be presented to different options of choice. Please, choose a shirt from the options below.

(Mass-customized experience – **Men**)

8. **Step 1:** Choose a fabric

9. **Step 2:** Choose the sleeve

10. **Step 3**: Choose the cuff

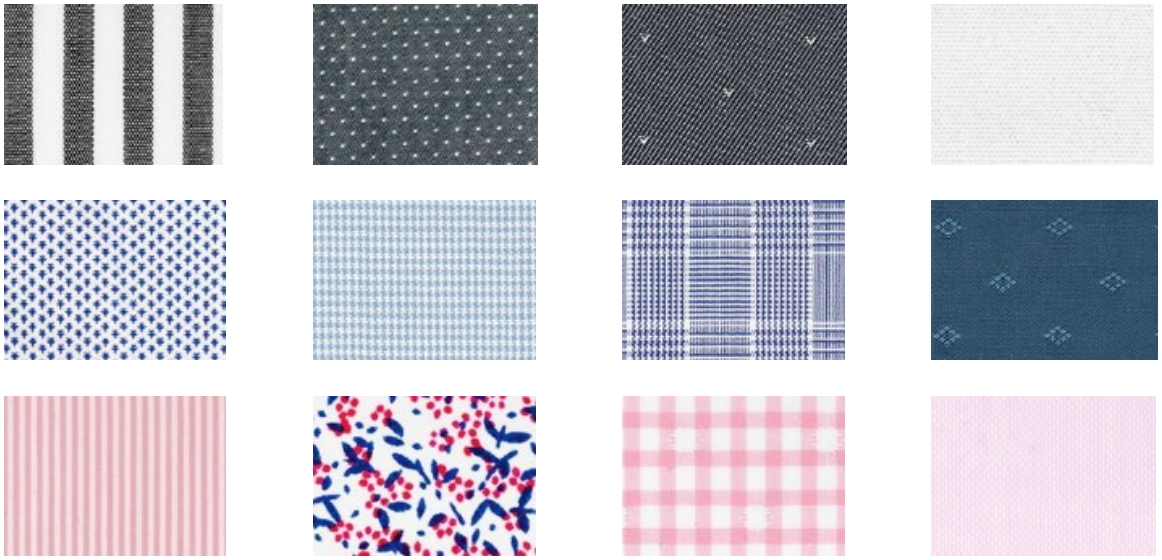
11. **Step 4:** Choose the pocket

12. **Step 5:** Choose the fitting

13. **Step 6:** Choose the collar

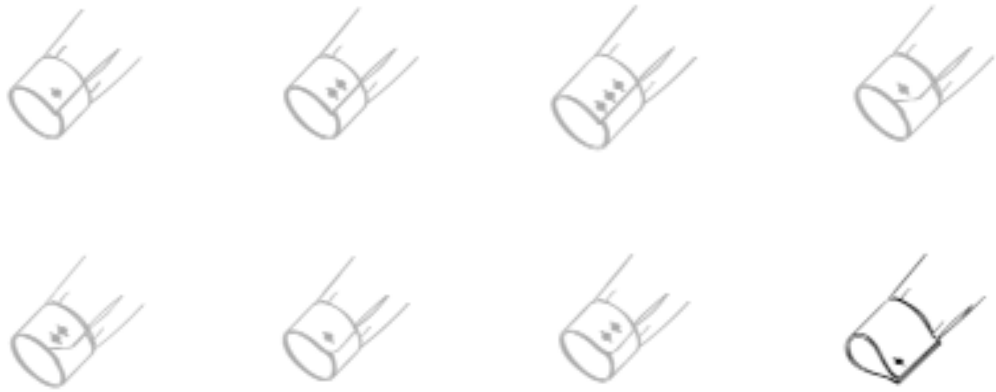
(Mass-customized experience – **Women**)

14. **Step 1:** Choose a fabric



15. **Step 2:** Choose the sleeve

16. **Step 3:** Choose the cuff



17. **Step 4:** Choose the pocket

18. **Step 5:** Choose the fitting

19. **Step 6:** Choose the collar

(Section 3)

20. **Extrinsic Benefit**

Considering the chosen shirt, please choose the option that best describes it.

Ineffective	○○○○○○○	Effective
Unhelpful	○○○○○○○	Helpful
Not functional	○○○○○○○	Functional
Unnecessary	○○○○○○○	Necessary
Impractical	○○○○○○○	Practical

21. **Intrinsic benefit**

Considering the chosen shirt, please choose the option that best describes it.

Not fun	○○○○○○○	Fun
Dull	○○○○○○○	Exciting
Not delightful	○○○○○○○	Delightful
Not thrilling	○○○○○○○	Thrilling
Unenjoylable	○○○○○○○	Enjoyable

22. **Purchase Intention**

Please choose the option that best indicates your opinion of buying the shirt.

I definitely not buy it	○○○○○○○	I definitely buy it
I definitely do not intend to but it	○○○○○○○	I definitely intend to buy it
I have a very low purchase interest	○○○○○○○	I have a very high purchase interest
I never intend to purchase it	○○○○○○○	I definitely intend to purchase it
I probably not buy it	○○○○○○○	I probably buy it

(Demographics)Last few questions! In this last section, please answer to some demographics about yourself. Please keep in mind that this survey is anonymous and only for research purposes.

23. **Age**
a) Under 18 years old
b) 18-24 years old
c) 25-34 years old
d) 35-44 years old
e) 45-54 years old
f) 55-64 years old
g) 65 years or older

24. **Country**
(select from a list)

25. **Occupation**
a) Student
b) Employed
c) Retired
d) Disabled
e) Unemployed
f) Other

26. **Education level**
a) Less than a high school diploma
b) High school degree or equivalent
c) Bachelor's degree
d) Master's degree
e) Doctorate
f) Other

27. **Number of household members**
a) 1
b) 2
c) 3
d) 4
e) 5 or more

28. **Yearly net household income**
a) Under €20 000
b) €20 000 – 34€ 999
c) €35 000 - €49 999
d) €50 000 - €74 999
e) €75 000 - €99 999
f) Over €100 000
g) I prefer not to say

Thank for your participation! If you want to know more about my study, send me an email to ana.pessegueiro.veloso@gmail.com

Appendix 2: Descriptive Statistics and Frequencies

Total Sample

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	143	38,4	38,4	38,4
	Female	229	61,6	61,6	100,0
	Total	372	100,0	100,0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 18 years old	7	1,9	1,9	1,9
	18-24 years old	268	72,0	72,0	73,9
	25-34 years old	41	11,0	11,0	84,9
	35-44 years old	13	3,5	3,5	88,4
	45-54 years old	35	9,4	9,4	97,8
	55-64 years old	7	1,9	1,9	99,7
	65 years old or older	1	,3	,3	100,0
	Total	372	100,0	100,0	

List of Countries

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Andorra	1	,3	,3	,3
	Angola	1	,3	,3	,5
	Argentina	1	,3	,3	,8
	Australia	1	,3	,3	1,1
	Belgium	3	,8	,8	1,9
	Brazil	2	,5	,5	2,4
	Canada	1	,3	,3	2,7
	China	1	,3	,3	3,0
	Colombia	1	,3	,3	3,2
	Denmark	1	,3	,3	3,5
	Estonia	1	,3	,3	3,8
	France	12	3,2	3,2	7,0
	Germany	7	1,9	1,9	8,9
	Greece	1	,3	,3	9,1
	Hungary	1	,3	,3	9,4
	Ireland	1	,3	,3	9,7
	Italy	2	,5	,5	10,2
	Mexico	1	,3	,3	10,5
	Netherlands	4	1,1	1,1	11,6
	Pakistan	1	,3	,3	11,8
	Papua New Guinea	1	,3	,3	12,1
	Portugal	314	84,4	84,4	96,5
	Republic of Korea	1	,3	,3	96,8
	Romania	1	,3	,3	97,0
	Slovakia	1	,3	,3	97,3
	Spain	2	,5	,5	97,8
	United Kingdom of Great Britain and Northern Ireland	5	1,3	1,3	99,2
	United States of America	2	,5	,5	99,7
	Venezuela, Bolivarian Republic of...	1	,3	,3	100,0
	Total	372	100,0	100,0	

Current ccupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	207	55,6	55,6	55,6
	Employed	148	39,8	39,8	95,4
	Retired	1	,3	,3	95,7
	Disabled	1	,3	,3	96,0
	Unemployed	7	1,9	1,9	97,8
	Other	8	2,2	2,2	100,0
	Total	372	100,0	100,0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a high school diploma	4	1,1	1,1	1,1
	High school degree or equivalent	78	21,0	21,0	22,0
	Bachelor's degree	202	54,3	54,3	76,3
	Master's degree	82	22,0	22,0	98,4
	Doctorate	3	,8	,8	99,2
	Other	3	,8	,8	100,0
	Total	372	100,0	100,0	

Number of household members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	51	13,7	13,7	13,7
	2	51	13,7	13,7	27,4
	3	109	29,3	29,3	56,7
	4	110	29,6	29,6	86,3
	5 or more	51	13,7	13,7	100,0
	Total	372	100,0	100,0	

Yearly net household income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under €20 000	85	22,8	27,1	27,1
	€20 000 - €34 999	92	24,7	29,3	56,4
	€35 000 - €49 999	67	18,0	21,3	77,7
	€50 000 - €74 999	41	11,0	13,1	90,8
	€75 000 - €99 999	12	3,2	3,8	94,6
	Over €100 000	17	4,6	5,4	100,0
	Total	314	84,4	100,0	
Missing	System	58	15,6		
Total		372	100,0		

How often do you use shirts?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	4	1,1	1,1	1,1
	Very rarely	18	4,8	4,8	5,9
	Rarely	34	9,1	9,1	15,1
	Sometimes	122	32,8	32,8	47,8
	Frequently	83	22,3	22,3	70,2
	Very frequently	85	22,8	22,8	93,0
	Always	26	7,0	7,0	100,0
	Total	372	100,0	100,0	

Appendix 3: Cronbach's Alpha Output

1. CNFU

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,801	36

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I prefer being _____ different from other people.	150,3656	379,634	,395	,794
Being distinctive is _____ important to me.	150,1156	378,097	,346	,795
I _____ intentionally do things to make myself different from those around me.	150,6667	379,872	,349	,795
I have a _____ need for uniqueness.	150,3737	372,100	,483	,791
When I am in a group of strangers, I am not reluctant to express my opinions.	150,1747	378,091	,264	,797
I find that criticism affects my self-esteem.	150,3387	371,157	,359	,794
I sometimes hesitate to use my own ideas for fear they might be impractical.	149,6640	372,299	,367	,793
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.	149,9382	385,163	,174	,801
People frequently succeed in changing my mind.	149,5538	386,614	,182	,800
I find it sometimes amusing to upset the dignity of teachers, judges, and "cultured" people.	152,3737	385,917	,167	,801
I like wearing a uniform, because it makes me proud to be a member of the organization it represents.	149,4892	385,636	,124	,804
People have sometimes called me "stuckup".	152,2769	392,298	,049	,805
Others' disagreements make me unconfortable.	150,5887	383,219	,171	,801

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I do not always need to live by the rules and standards of society.	149,9892	376,571	,317	,795
I am unable to express my feelings if they result in undesirable consequences.	150,1505	374,743	,326	,795
Being a success in one's career means making a contribution that no one else has made.	150,7796	394,507	,012	,807
It bothers me if people think I am being too unconventional.	149,6989	377,650	,294	,796
I always try to follow rules.	150,6962	367,813	,465	,790
If I disagree with a superior on his or her views, I usually do not keep it to myself.	150,4516	376,599	,311	,796
I speak up in meetings in order to oppose those whom I feel are wrong.	150,4247	377,134	,322	,795
Feeling "different" in a crowd of people make me feel uncomfortable.	149,8575	361,470	,515	,787
If I must die, let it be an unusual death rather than an ordinary death in bed.	151,9194	388,317	,076	,806
I would rather be just like everyone else than be called a "freak".	149,6371	367,181	,414	,791
I must admit I find it hard to work under strict rules and regulations.	151,0995	383,281	,185	,801
I would rather be known for always trying new ideas than for employing well trusted methods.	149,9220	382,735	,206	,800
It is better always to agree with the opinion of others than to be considered a disagreeable person.	149,3011	372,745	,407	,792

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I do not like to say unusual things to people.	149,7984	370,571	,426	,792
I tend to express my feelings publicly, regardless of what others say.	150,6398	376,048	,301	,796
As a rule, I strongly defend my own opinions.	149,4220	377,501	,360	,794
I do not like to go my own way.	148,6022	383,259	,247	,798
When I am with a group of people, I agree with their ideas so that no arguments will arise.	149,1075	383,724	,229	,799
I tend to keep quiet in the presence of persons of higher rank, experience, etc.	149,9355	370,858	,408	,792
I have been quite independent and free from family rule.	150,7016	377,870	,257	,798
Whenever I take part in group activities, I am somewhat of a nonconformist.	151,6263	385,399	,170	,801
In most things in life, I believe in playing it safe rather than taking a gamble.	150,3387	368,521	,485	,790
It is better to break the rules than to always conform with an impersonal society.	150,6801	378,504	,310	,796

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,812	36

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I prefer being _____ different from other people.	150,1765	398,705	,509	,803
Being distinctive is _____ important to me.	149,9358	402,308	,363	,806
I _____ intentionally do things to make myself different from those around me.	150,5294	403,584	,349	,806
I have a _____ need for uniqueness.	150,2139	395,072	,493	,802
When I am in a group of strangers, I am not reluctant to express my opinions.	150,2139	404,986	,231	,810
I find that criticism affects my self-esteem.	150,2086	403,187	,256	,809
I sometimes hesitate to use my own ideas for fear they might be impractical.	149,6417	400,339	,335	,806
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.	149,7701	407,651	,219	,810
People frequently succeed in changing my mind.	149,5508	410,776	,197	,811
I find it sometimes amusing to upset the dignity of teachers, judges, and "cultured" people.	152,2246	406,121	,228	,810
I like wearing a uniform, because it makes me proud to be a member of the organization it represents.	149,5080	410,025	,131	,814
People have sometimes called me "stuckup".	152,1872	415,465	,088	,815
Others' disagreements make me unconfortable.	150,4920	409,692	,153	,813

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I do not always need to live by the rules and standards of society.	149,9626	401,068	,315	,807
I am unable to express my feelings if they result in undesirable consequences.	150,1444	403,135	,267	,809
Being a success in one's career means making a contribution that no one else has made.	150,6043	416,412	,064	,816
It bothers me if people think I am being too unconventional.	149,5615	402,785	,298	,808
I always try to follow rules.	150,5561	393,592	,452	,802
If I disagree with a superior on his or her views, I usually do not keep it to myself.	150,3155	401,196	,318	,807
I speak up in meetings in order to oppose those whom I feel are wrong.	150,4064	401,275	,350	,806
Feeling "different" in a crowd of people make me feel uncomfortable.	149,7540	383,348	,539	,798
If I must die, let it be an unusual death rather than an ordinary death in bed.	151,6310	407,417	,143	,815
I would rather be just like everyone else than be called a "freak".	149,4813	388,251	,453	,802
I must admit I find it hard to work under strict rules and regulations.	151,0160	407,715	,182	,812
I would rather be known for always trying new ideas than for employing well trusted methods.	149,8075	406,371	,214	,811
It is better always to agree with the opinion of others than to be considered a disagreeable person.	149,2834	396,301	,429	,803

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I do not like to say unusual things to people.	149,7540	387,896	,527	,800
I tend to express my feelings publicly, regardless of what others say.	150,6898	402,462	,267	,809
As a rule, I strongly defend my own opinions.	149,3369	400,214	,380	,805
I do not like to go my own way.	148,4652	407,497	,253	,809
When I am with a group of people, I agree with their ideas so that no arguments will arise.	149,1176	404,631	,291	,808
I tend to keep quiet in the presence of persons of higher rank, experience, etc.	149,8663	399,202	,345	,806
I have been quite independent and free from family rule.	150,7219	404,256	,251	,809
Whenever I take part in group activities, I am somewhat of a nonconformist.	151,5348	408,594	,205	,811
In most things in life, I believe in playing it safe rather than taking a gamble.	150,3583	392,425	,507	,801
It is better to break the rules than to always conform with an impersonal society.	150,5722	403,407	,299	,808

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,790	36

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I prefer being _____ different from other people.	150,5568	362,346	,271	,786
Being distinctive is _____ important to me.	150,2973	355,612	,332	,783
I _____ intentionally do things to make myself different from those around me.	150,8054	357,929	,350	,783
I have a _____ need for uniqueness.	150,5351	350,848	,476	,779
When I am in a group of strangers, I am not reluctant to express my opinions.	150,1351	352,954	,304	,784
I find that criticism affects my self-esteem.	150,4703	340,761	,470	,776
I sometimes hesitate to use my own ideas for fear they might be impractical.	149,6865	345,977	,403	,780
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.	150,1081	364,467	,129	,791
People frequently succeed in changing my mind.	149,5568	364,292	,166	,789
I find it sometimes amusing to upset the dignity of teachers, judges, and "cultured" people.	152,5243	367,544	,094	,792
I like wearing a uniform, because it makes me proud to be a member of the organization it represents.	149,4703	363,077	,116	,793
People have sometimes called me "stuckup".	152,3676	370,995	,012	,796
Others' disagreements make me unconfortable.	150,6865	358,521	,190	,789

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I do not always need to live by the rules and standards of society.	150,0162	353,853	,318	,784
I am unable to express my feelings if they result in undesirable consequences.	150,1568	348,079	,391	,780
Being a success in one's career means making a contribution that no one else has made.	150,9568	374,444	-,041	,798
It bothers me if people think I am being too unconventional.	149,8378	354,256	,293	,785
I always try to follow rules.	150,8378	343,713	,480	,777
If I disagree with a superior on his or her views, I usually do not keep it to myself.	150,5892	353,743	,306	,784
I speak up in meetings in order to oppose those whom I feel are wrong.	150,4432	354,781	,297	,784
Feeling "different" in a crowd of people make me feel uncomfortable.	149,9622	341,297	,488	,776
If I must die, let it be an unusual death rather than an ordinary death in bed.	152,2108	370,950	,002	,798
I would rather be just like everyone else than be called a "freak".	149,7946	347,827	,372	,781
I must admit I find it hard to work under strict rules and regulations.	151,1838	360,651	,189	,789
I would rather be known for always trying new ideas than for employing well trusted methods.	150,0378	360,895	,197	,788
It is better always to agree with the opinion of others than to be considered a disagreeable person.	149,3189	350,958	,385	,781

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I do not like to say unusual things to people.	149,8432	355,068	,311	,784
I tend to express my feelings publicly, regardless of what others say.	150,5892	351,385	,342	,782
As a rule, I strongly defend my own opinions.	149,5081	356,577	,336	,783
I do not like to go my own way.	148,7405	360,802	,241	,786
When I am with a group of people, I agree with their ideas so that no arguments will arise.	149,0973	364,675	,160	,789
I tend to keep quiet in the presence of persons of higher rank, experience, etc.	150,0054	344,212	,477	,777
I have been quite independent and free from family rule.	150,6811	353,251	,265	,786
Whenever I take part in group activities, I am somewhat of a nonconformist.	151,7189	364,029	,134	,791
In most things in life, I believe in playing it safe rather than taking a gamble.	150,3189	346,360	,466	,778
It is better to break the rules than to always conform with an impersonal society.	150,7892	355,363	,324	,784

2. NFU

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,774	32

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When I am in a group of strangers, I am not reluctant to express my opinions.	133,3306	307,834	,264	,768
I find that criticism affects my self-esteem.	133,4946	300,881	,371	,763
I sometimes hesitate to use my own ideas for fear they might be impractical.	132,8199	301,113	,395	,762
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.	133,0941	315,137	,158	,773
People frequently succeed in changing my mind.	132,7097	315,139	,192	,771
I find it sometimes amusing to upset the dignity of teachers, judges, and "cultured" people.	135,5296	315,339	,159	,773

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I like wearing a uniform, because it makes me proud to be a member of the organization it represents.	132,6452	314,262	,128	,776
People have sometimes called me "stuckup".	135,4328	319,842	,064	,778
Others' disagreements make me unconfortable.	133,7446	311,285	,190	,772
I do not always need to live by the rules and standards of society.	133,1452	307,046	,306	,766
I am unable to express my feelings if they result in undesirable consequences.	133,3065	302,785	,363	,764
Being a success in one's career means making a contribution that no one else has made.	133,9355	324,972	-,026	,782
It bothers me if people think I am being too unconventional.	132,8548	306,243	,317	,766
I always try to follow rules.	133,8522	298,143	,474	,759
If I disagree with a superior on his or her views, I usually do not keep it to myself.	133,6075	306,633	,309	,766
I speak up in meetings in order to oppose those whom I feel are wrong.	133,5806	306,783	,327	,766
Feeling "different" in a crowd of people make me feel uncomfortable.	133,0134	293,695	,501	,756
If I must die, let it be an unusual death rather than an ordinary death in bed.	135,0753	318,409	,055	,781
I would rather be just like everyone else than be called a "freak".	132,7930	299,264	,393	,762
I must admit I find it hard to work under strict rules and regulations.	134,2554	313,188	,173	,773

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I would rather be known for always trying new ideas than for employing well trusted methods.	133,0780	313,770	,175	,773
It is better always to agree with the opinion of others than to be considered a disagreeable person.	132,4570	301,861	,432	,761
I do not like to say unusual things to people.	132,9543	301,963	,410	,762
I tend to express my feelings publicly, regardless of what others say.	133,7957	305,478	,310	,766
As a rule, I strongly defend my own opinions.	132,5780	307,452	,358	,765
I do not like to go my own way.	131,7581	312,631	,246	,769
When I am with a group of people, I agree with their ideas so that no arguments will arise.	132,2634	312,108	,248	,769
I tend to keep quiet in the presence of persons of higher rank, experience, etc.	133,0914	301,183	,411	,762
I have been quite independent and free from family rule.	133,8575	307,109	,265	,768
Whenever I take part in group activities, I am somewhat of a nonconformist.	134,7823	315,395	,152	,773
In most things in life, I believe in playing it safe rather than taking a gamble.	133,4946	299,916	,472	,759
It is better to break the rules than to always conform with an impersonal society.	133,8360	309,566	,284	,768

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,782	32

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When I am in a group of strangers, I am not reluctant to express my opinions.	133,0588	323,421	,234	,779
I find that criticism affects my self-esteem.	133,0535	321,126	,271	,777
I sometimes hesitate to use my own ideas for fear they might be impractical.	132,4866	318,552	,353	,773
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.	132,6150	326,550	,210	,780
People frequently succeed in changing my mind.	132,3957	328,326	,209	,779
I find it sometimes amusing to upset the dignity of teachers, judges, and "cultured" people.	135,0695	325,248	,217	,779

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I like wearing a uniform, because it makes me proud to be a member of the organization it represents.	132,3529	327,455	,140	,784
People have sometimes called me "stuckup".	135,0321	332,956	,089	,785
Others' disagreements make me unconfortable.	133,3369	327,440	,159	,782
I do not always need to live by the rules and standards of society.	132,8075	320,909	,302	,776
I am unable to express my feelings if they result in undesirable consequences.	132,9893	319,677	,307	,775
Being a success in one's career means making a contribution that no one else has made.	133,4492	336,206	,024	,788
It bothers me if people think I am being too unconventional.	132,4064	320,576	,319	,775
I always try to follow rules.	133,4011	312,155	,479	,768
If I disagree with a superior on his or her views, I usually do not keep it to myself.	133,1604	320,641	,311	,775
I speak up in meetings in order to oppose those whom I feel are wrong.	133,2513	319,942	,359	,774
Feeling "different" in a crowd of people make me feel uncomfortable.	132,5989	304,887	,530	,764
If I must die, let it be an unusual death rather than an ordinary death in bed.	134,4759	327,573	,117	,786
I would rather be just like everyone else than be called a "freak".	132,3262	310,726	,419	,770
I must admit I find it hard to work under strict rules and regulations.	133,8610	326,572	,173	,782

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I would rather be known for always trying new ideas than for employing well trusted methods.	132,6524	327,024	,177	,781
It is better always to agree with the opinion of others than to be considered a disagreeable person.	132,1283	315,005	,448	,770
I do not like to say unusual things to people.	132,5989	309,059	,516	,766
I tend to express my feelings publicly, regardless of what others say.	133,5348	320,971	,274	,777
As a rule, I strongly defend my own opinions.	132,1818	319,967	,369	,773
I do not like to go my own way.	131,3102	326,237	,248	,778
When I am with a group of people, I agree with their ideas so that no arguments will arise.	131,9626	322,864	,302	,776
I tend to keep quiet in the presence of persons of higher rank, experience, etc.	132,7112	318,970	,336	,774
I have been quite independent and free from family rule.	133,5668	322,817	,254	,778
Whenever I take part in group activities, I am somewhat of a nonconformist.	134,3797	326,086	,220	,779
In most things in life, I believe in playing it safe rather than taking a gamble.	133,2032	312,625	,505	,767
It is better to break the rules than to always conform with an impersonal society.	133,4171	323,567	,274	,777

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,765	32

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When I am in a group of strangers, I am not reluctant to express my opinions.	133,6054	293,599	,296	,758
I find that criticism affects my self-esteem.	133,9405	281,654	,478	,748
I sometimes hesitate to use my own ideas for fear they might be impractical.	133,1568	284,894	,438	,750
I think society should let reason lead it to new customs and throw aside old habits or mere traditions.	133,5784	304,843	,108	,767
People frequently succeed in changing my mind.	133,0270	303,320	,172	,764
I find it sometimes amusing to upset the dignity of teachers, judges, and "cultured" people.	135,9946	306,603	,093	,767

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I like wearing a uniform, because it makes me proud to be a member of the organization it represents.	132,9405	302,458	,114	,768
People have sometimes called me "stuckup".	135,8378	307,995	,040	,771
Others' disagreements make me unconfortable.	134,1568	296,307	,221	,762
I do not always need to live by the rules and standards of society.	133,4865	294,469	,310	,757
I am unable to express my feelings if they result in undesirable consequences.	133,6270	287,148	,422	,752
Being a success in one's career means making a contribution that no one else has made.	134,4270	314,898	-,077	,777
It bothers me if people think I am being too unconventional.	133,3081	293,008	,319	,757
I always try to follow rules.	134,3081	285,182	,473	,749
If I disagree with a superior on his or her views, I usually do not keep it to myself.	134,0595	293,730	,310	,757
I speak up in meetings in order to oppose those whom I feel are wrong.	133,9135	294,927	,297	,758
Feeling "different" in a crowd of people make me feel uncomfortable.	133,4324	283,627	,470	,749
If I must die, let it be an unusual death rather than an ordinary death in bed.	135,6811	310,142	-,007	,775
I would rather be just like everyone else than be called a "freak".	133,2649	288,859	,366	,754
I must admit I find it hard to work under strict rules and regulations.	134,6541	301,043	,174	,764

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I would rather be known for always trying new ideas than for employing well trusted methods.	133,5081	301,708	,173	,764
It is better always to agree with the opinion of others than to be considered a disagreeable person.	132,7892	289,993	,415	,753
I do not like to say unusual things to people.	133,3135	296,173	,291	,758
I tend to express my feelings publicly, regardless of what others say.	134,0595	291,339	,350	,755
As a rule, I strongly defend my own opinions.	132,9784	296,152	,347	,757
I do not like to go my own way.	132,2108	300,167	,247	,761
When I am with a group of people, I agree with their ideas so that no arguments will arise.	132,5676	302,747	,186	,763
I tend to keep quiet in the presence of persons of higher rank, experience, etc.	133,4757	284,544	,492	,748
I have been quite independent and free from family rule.	134,1514	292,727	,276	,759
Whenever I take part in group activities, I am somewhat of a nonconformist.	135,1892	305,969	,085	,768
In most things in life, I believe in playing it safe rather than taking a gamble.	133,7892	288,526	,440	,751
It is better to break the rules than to always conform with an impersonal society.	134,2595	296,737	,297	,758

3. SANU

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,841	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I prefer being _____ different from other people.	12,62	10,803	,675	,802
Being distinctive is _____ important to me.	12,37	9,511	,681	,798
I _____ intentionally do things to make myself different from those around me.	12,92	10,387	,645	,811
I have a _____ need for uniqueness.	12,63	9,588	,709	,783

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,838	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I prefer being _____ different from other people.	12,83	11,390	,658	,802
Being distinctive is _____ important to me.	12,59	10,254	,682	,790
I _____ intentionally do things to make myself different from those around me.	13,18	10,666	,649	,805
I have a _____ need for uniqueness.	12,87	9,998	,700	,782

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,843	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I prefer being _____ different from other people.	12,41	10,177	,690	,799
Being distinctive is _____ important to me.	12,15	8,712	,678	,804
I _____ intentionally do things to make myself different from those around me.	12,65	10,021	,641	,816
I have a _____ need for uniqueness.	12,38	9,107	,719	,782

4. Extrinsic Benefit

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,881	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Ineffective:Effective	21,77	22,163	,734	,851
Unhelpful:Helpful	21,81	21,751	,782	,839
Not functional:Functional	21,55	22,938	,769	,845
Unnecessary:Necessary	22,21	22,446	,659	,870
Impractical:Practical	21,82	23,171	,645	,872

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,873	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Ineffective:Effective	22,06	21,437	,671	,854
Unhelpful:Helpful	22,09	20,707	,762	,832
Not functional:Functional	21,90	22,296	,748	,839
Unnecessary:Necessary	22,57	20,579	,648	,863
Impractical:Practical	22,03	21,187	,702	,846

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,888	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Ineffective:Effective	21,46	22,837	,792	,849
Unhelpful:Helpful	21,52	22,762	,799	,847
Not functional:Functional	21,21	23,468	,790	,850
Unnecessary:Necessary	21,84	24,187	,675	,876
Impractical:Practical	21,62	25,216	,595	,894

5. Intrinsic Benefit

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,884	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not fun:Fun	19,40	26,370	,702	,864
Dull:Exciting	19,30	26,002	,829	,833
Not delightful:Delightful	18,67	27,260	,704	,862
Not thrilling:Thrilling	19,55	26,680	,755	,850
Unenjoyable:Enjoyable	18,38	29,831	,618	,881

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,853	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not fun:Fun	20,17	21,558	,667	,823
Dull:Exciting	20,03	21,526	,808	,785
Not delightful:Delightful	19,39	23,497	,618	,834
Not thrilling:Thrilling	20,28	22,451	,699	,813
Unenjoyable:Enjoyable	19,14	25,070	,546	,851

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,902	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not fun:Fun	18,63	30,181	,727	,888
Dull:Exciting	18,57	29,584	,840	,862
Not delightful:Delightful	17,95	30,166	,760	,880
Not thrilling:Thrilling	18,80	29,987	,793	,873
Unenjoyable:Enjoyable	17,60	33,600	,668	,899

6. Overall Perceived Benefits

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,888	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not fun:Fun	46,69	90,764	,522	,885
Dull:Exciting	46,59	88,657	,668	,873
Not delightful:Delightful	45,97	87,678	,683	,872
Not thrilling:Thrilling	46,84	90,191	,595	,879
Unenjoyable:Enjoyable	45,67	88,999	,727	,870
Ineffective:Effective	45,59	90,878	,637	,876
Unhelpful:Helpful	45,63	89,742	,690	,872
Not functional:Functional	45,38	93,287	,616	,878
Unnecessary:Necessary	46,03	92,244	,546	,882
Impractical:Practical	45,65	92,514	,572	,880

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,871	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not fun:Fun	47,83	78,788	,479	,869
Dull:Exciting	47,70	77,353	,631	,855
Not delightful:Delightful	47,05	77,513	,612	,857
Not thrilling:Thrilling	47,95	79,169	,536	,863
Unenjoyable:Enjoyable	46,81	77,511	,667	,853
Ineffective:Effective	46,82	78,451	,600	,858
Unhelpful:Helpful	46,84	77,099	,677	,852
Not functional:Functional	46,65	81,077	,599	,859
Unnecessary:Necessary	47,33	78,017	,544	,863
Impractical:Practical	46,78	78,893	,586	,859

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,898	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Not fun:Fun	45,54	100,717	,550	,896
Dull:Exciting	45,48	98,088	,689	,886
Not delightful:Delightful	44,86	96,009	,730	,883
Not thrilling:Thrilling	45,71	99,303	,633	,889
Unenjoyable:Enjoyable	44,51	98,436	,772	,881
Ineffective:Effective	44,35	100,860	,669	,887
Unhelpful:Helpful	44,41	100,015	,700	,885
Not functional:Functional	44,09	102,823	,634	,889
Unnecessary:Necessary	44,73	103,720	,563	,894
Impractical:Practical	44,50	104,164	,550	,894

7. Purchase Intention

Total Sample

Reliability Statistics

Cronbach's Alpha	N of Items
,938	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I definitely not buy it:I definitely buy it	18,48	36,746	,789	,932
I definitely do not intend to buy it:I definitely intend to buy it	18,60	34,655	,899	,912
I have a very low purchase interest:I have a very high purchase interest	18,72	35,123	,796	,931
I never intend to buy it:I definitely intend to buy it	18,67	35,120	,868	,918
I probably not buy it:I probably buy it	18,55	33,569	,830	,926

Mass-customized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,944	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I definitely not buy it:I definitely buy it	19,45	37,883	,811	,938
I definitely do not intend to buy it:I definitely intend to buy it	19,55	35,206	,904	,921
I have a very low purchase interest:I have a very high purchase interest	19,68	35,778	,814	,937
I never intend to buy it:I definitely intend to buy it	19,61	35,421	,862	,929
I probably not buy it:I probably buy it	19,50	34,488	,856	,930

Standardized Shirt

Reliability Statistics

Cronbach's Alpha	N of Items
,928	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I definitely not buy it:I definitely buy it	17,50	33,882	,758	,922
I definitely do not intend to buy it:I definitely intend to buy it	17,64	32,448	,888	,898
I have a very low purchase interest:I have a very high purchase interest	17,76	32,783	,768	,921
I never intend to buy it:I definitely intend to buy it	17,72	33,201	,870	,902
I probably not buy it:I probably buy it	17,59	30,972	,796	,917

Appendix 4: SPSS results from hypotheses testing

1. Hypothesis 1, further analysis

Mass-customized Shirt

Correlations

		PurchaseIntention	ExtrinsicBenefit	IntrinsicBenefit
Pearson Correlation	PurchaseIntention	1,000	,468	,485
	ExtrinsicBenefit	,468	1,000	,434
	IntrinsicBenefit	,485	,434	1,000
Sig. (1-tailed)	PurchaseIntention	.	,000	,000
	ExtrinsicBenefit	,000	.	,000
	IntrinsicBenefit	,000	,000	.
N	PurchaseIntention	187	187	187
	ExtrinsicBenefit	187	187	187
	IntrinsicBenefit	187	187	187

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,563[a]	,317	,309	1,23397	1,894

a. Predictors: (Constant), IntrinsicBenefit, ExtrinsicBenefit

b. Dependent Variable: PurchaseIntention

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129,757	2	64,879	42,608	,000[b]
	Residual	280,173	184	1,523		
	Total	409,931	186			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), IntrinsicBenefit, ExtrinsicBenefit

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	,418	,498		,841	,402		
	ExtrinsicBenefit	,415	,089	,317	4,690	,000	,812	1,232
	IntrinsicBenefit	,439	,086	,347	5,132	,000	,812	1,232

a. Dependent Variable: PurchaseIntention

Collinearity Diagnostics[a]

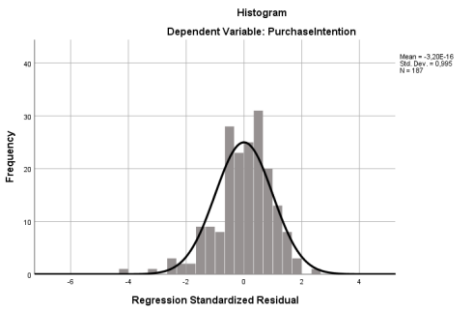
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Variance Proportions ExtrinsicBenefit	Variance Proportions IntrinsicBenefit
1	1	2,951	1,000	,00	,00	,00
	2	,029	10,121	,20	,18	,99
	3	,020	12,065	,80	,82	,00

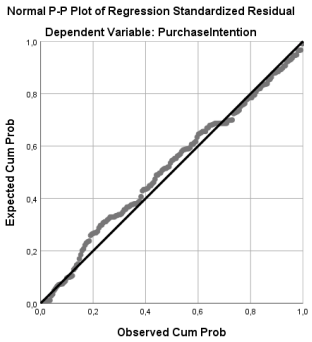
a. Dependent Variable: PurchaseIntention

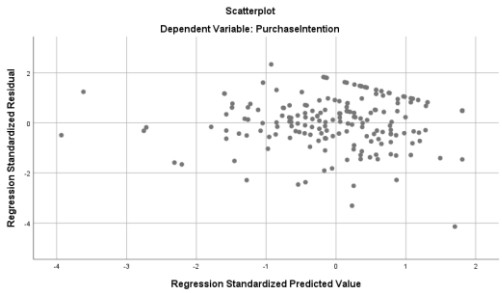
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1,6048	6,3992	4,8898	,83524	187
Residual	-5,11132	2,88526	,00000	1,22732	187
Std. Predicted Value	-3,933	1,807	,000	1,000	187
Std. Residual	-4,142	2,338	,000	,995	187

a. Dependent Variable: PurchaseIntention







Standardized Shirt

Correlations

		PurchaseIntention	ExtrinsicBenefit	IntrinsicBenefit
Pearson Correlation	PurchaseIntention	1,000	,594	,540
	ExtrinsicBenefit	,594	1,000	,484
	IntrinsicBenefit	,540	,484	1,000
Sig. (1-tailed)	PurchaseIntention	.	,000	,000
	ExtrinsicBenefit	,000	.	,000
	IntrinsicBenefit	,000	,000	.
N	PurchaseIntention	185	185	185
	ExtrinsicBenefit	185	185	185
	IntrinsicBenefit	185	185	185

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,661[a]	,436	,430	1,06894	2,078

a. Predictors: (Constant), IntrinsicBenefit, ExtrinsicBenefit

b. Dependent Variable: PurchaseIntention

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	160,980	2	80,490	70,443	,000[b]
	Residual	207,958	182	1,143		
	Total	368,938	184			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), IntrinsicBenefit, ExtrinsicBenefit

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	,089	,377		,237	,813		
	ExtrinsicBenefit	,513	,075	,435	6,833	,000	,766	1,306
	IntrinsicBenefit	,341	,066	,330	5,188	,000	,766	1,306

a. Dependent Variable: PurchaseIntention

Collinearity Diagnostics[a]

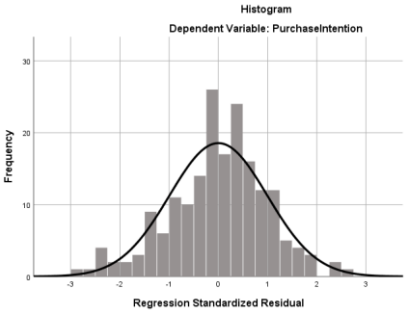
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Variance Proportions ExtrinsicBenefit	Variance Proportions IntrinsicBenefit
1	1	2,933	1,000	,00	,00	,01
	2	,044	8,191	,29	,05	,92
	3	,023	11,298	,70	,94	,08

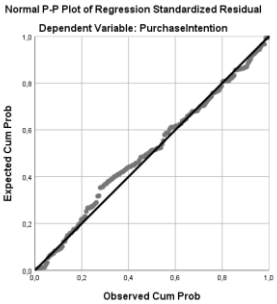
a. Dependent Variable: PurchaseIntention

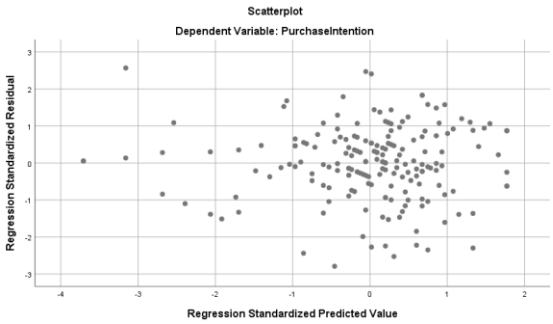
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	,9432	6,0668	4,4108	,93536	185
Residual	-2,98279	2,74420	,00000	1,06311	185
Std. Predicted Value	-3,707	1,770	,000	1,000	185
Std. Residual	-2,790	2,567	,000	,995	185

a. Dependent Variable: PurchaseIntention







Further Analysis

Group Statistics

	Please, choose a shirt from the options below.	N	Mean	Std. Deviation	Std. Error Mean
PurchaseIntention	Standardized	185	4,4108	1,41602	,10411
	Mass-Customized	187	4,8898	1,48456	,10856

Independent Samples Test

		Levene's Test for Equality of Variances F	Levene's Test for Equality of Variances Sig.	t-test for Equality of Means t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper
PurchaseIntention	Equal variances assumed	,489	,485	-3,184	370	,002	-,47903	,15045	-,77488	-,18318
	Equal variances not assumed			-3,185	369,509	,002	-,47903	,15041	-,77480	-,18326

2. Hypothesis 1a, 1b

Mass-customized Shirt

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,468[a]	,219	,214	1,31575	1,928

a. Predictors: (Constant), ExtrinsicBenefit

b. Dependent Variable: PurchaseIntention

Correlations

		PurchaseIntention	ExtrinsicBenefit
Pearson Correlation	PurchaseIntention	1,000	,468
	ExtrinsicBenefit	,468	1,000
Sig. (1-tailed)	PurchaseIntention	.	,000
	ExtrinsicBenefit	,000	.
N	PurchaseIntention	187	187
	ExtrinsicBenefit	187	187

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89,659	1	89,659	51,790	,000[b]
	Residual	320,272	185	1,731		
	Total	409,931	186			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), ExtrinsicBenefit

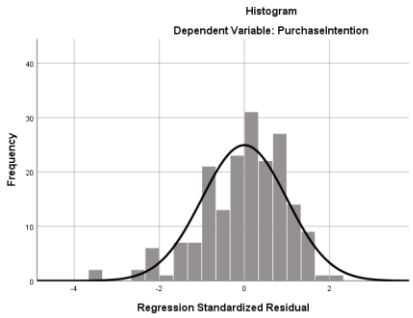
Coefficients[a]

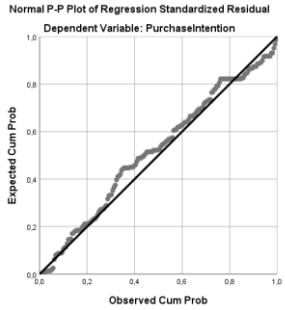
Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,504	,480		3,131	,002
	ExtrinsicBenefit	,612	,085	,468	7,197	,000

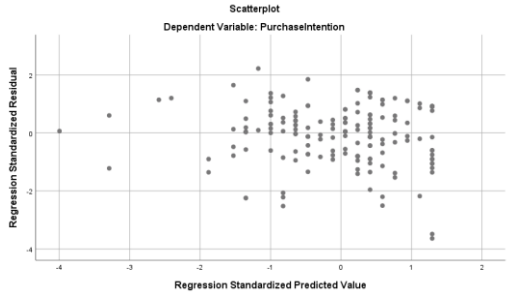
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2,1157	5,7879	4,8898	,69429	187
Residual	-4,78793	2,92578	,00000	1,31221	187
Std. Predicted Value	-3,996	1,294	,000	1,000	187
Std. Residual	-3,639	2,224	,000	,997	187

a. Dependent Variable: PurchaseIntention







Standardized Shirt

Correlations

		PurchaseIntention	ExtrinsicBenefit
Pearson Correlation	PurchaseIntention	1,000	,594
	ExtrinsicBenefit	,594	1,000
Sig. (1-tailed)	PurchaseIntention	.	,000
	ExtrinsicBenefit	,000	.
N	PurchaseIntention	185	185
	ExtrinsicBenefit	185	185

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,594[a]	,353	,349	1,14211	2,152

a. Predictors: (Constant), ExtrinsicBenefit

b. Dependent Variable: PurchaseIntention

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	130,231	1	130,231	99,839	,000[b]
	Residual	238,707	183	1,304		
	Total	368,938	184			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), ExtrinsicBenefit

Coefficients[a]

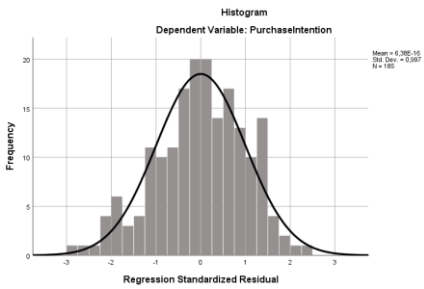
Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	,638	,387		1,649	,101
	ExtrinsicBenefit	,701	,070	,594	9,992	,000

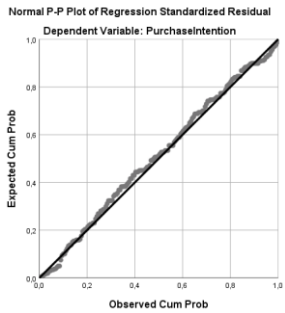
a. Dependent Variable: PurchaseIntention

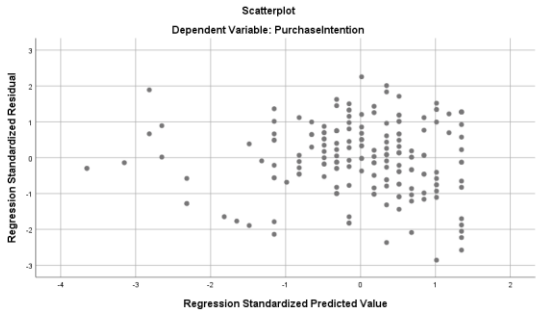
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1,3388	5,5444	4,4108	,84129	185
Residual	-3,26406	2,57706	,00000	1,13900	185
Std. Predicted Value	-3,652	1,347	,000	1,000	185
Std. Residual	-2,858	2,256	,000	,997	185

a. Dependent Variable: PurchaseIntention







Mass-customized Shirt

Correlations

		PurchaseIntention	IntrinsicBenefit
Pearson Correlation	PurchaseIntention	1,000	,485
	IntrinsicBenefit	,485	1,000
Sig. (1-tailed)	PurchaseIntention	.	,000
	IntrinsicBenefit	,000	.
N	PurchaseIntention	187	187
	IntrinsicBenefit	187	187

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,485[a]	,235	,231	1,30210	1,869

a. Predictors: (Constant), IntrinsicBenefit

b. Dependent Variable: PurchaseIntention

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96,269	1	96,269	56,781	,000[b]
	Residual	313,661	185	1,695		
	Total	409,931	186			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), IntrinsicBenefit

Coefficients[a]

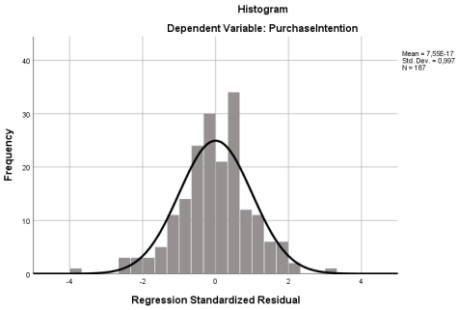
Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,853	,414		4,475	,000
	IntrinsicBenefit	,613	,081	,485	7,535	,000

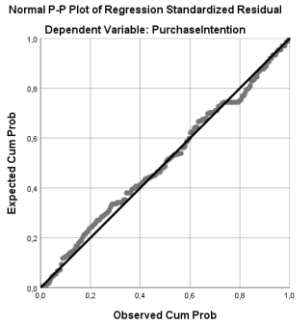
a. Dependent Variable: PurchaseIntention

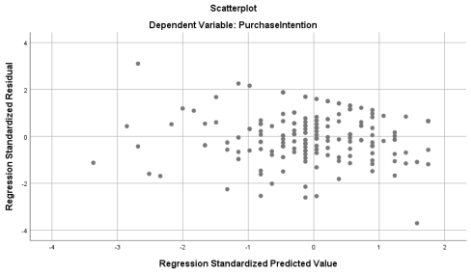
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2,4665	6,1468	4,8898	,71943	187
Residual	-4,82412	4,04283	,00000	1,29860	187
Std. Predicted Value	-3,368	1,747	,000	1,000	187
Std. Residual	-3,705	3,105	,000	,997	187

a. Dependent Variable: PurchaseIntention







Standardized Shirt

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,540[a]	,292	,288	1,19495	1,904

a. Predictors: (Constant), IntrinsicBenefit

b. Dependent Variable: PurchaseIntention

Correlations

		PurchaseIntention	IntrinsicBenefit
Pearson Correlation	PurchaseIntention	1,000	,540
	IntrinsicBenefit	,540	1,000
Sig. (1-tailed)	PurchaseIntention	.	,000
	IntrinsicBenefit	,000	.
N	PurchaseIntention	185	185
	IntrinsicBenefit	185	185

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	107,632	1	107,632	75,377	,000[b]
	Residual	261,307	183	1,428		
	Total	368,938	184			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), IntrinsicBenefit

Coefficients[a]

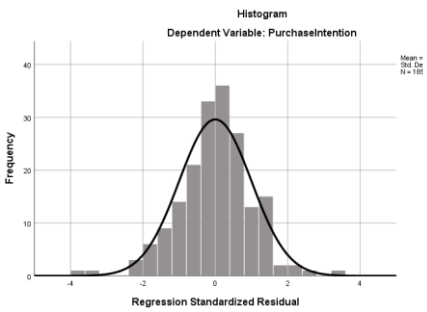
Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1,853	,307		6,027	,000
	IntrinsicBenefit	,559	,064	,540	8,682	,000

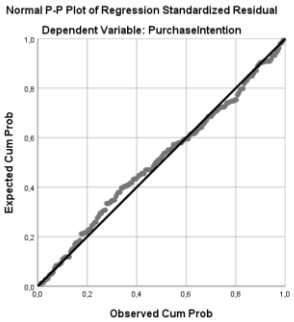
a. Dependent Variable: PurchaseIntention

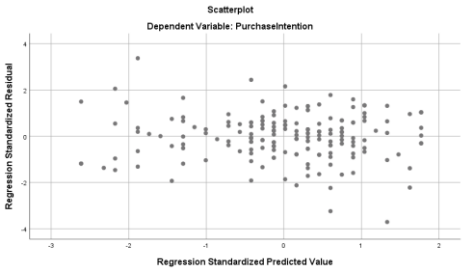
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2,4117	5,7647	4,4108	,76482	185
Residual	-4,42937	4,02943	,00000	1,19170	185
Std. Predicted Value	-2,614	1,770	,000	1,000	185
Std. Residual	-3,707	3,372	,000	,997	185

a. Dependent Variable: PurchaseIntention







3. Hypothesis 2

Mass-customized Shirt

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,196[a]	,038	,028	,68957	1,697

a. Predictors: (Constant), ExtrinsicBenefit, IntrinsicBenefit

b. Dependent Variable: CNFU

Correlations

		CNFU	IntrinsicBenefit	ExtrinsicBenefit
Pearson Correlation	CNFU	1,000	,191	,044
	IntrinsicBenefit	,191	1,000	,434
	ExtrinsicBenefit	,044	,434	1,000
Sig. (1-tailed)	CNFU	.	,004	,276
	IntrinsicBenefit	,004	.	,000
	ExtrinsicBenefit	,276	,000	.
N	CNFU	187	187	187
	IntrinsicBenefit	187	187	187
	ExtrinsicBenefit	187	187	187

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3,499	2	1,749	3,679	,027[b]
	Residual	87,493	184	,476		
	Total	90,991	186			

a. Dependent Variable: CNFU

b. Predictors: (Constant), ExtrinsicBenefit, IntrinsicBenefit

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	3,828	,278		13,768	,000		
	IntrinsicBenefit	,126	,048	,212	2,644	,009	,812	1,232
	ExtrinsicBenefit	-,030	,049	-,048	-,600	,549	,812	1,232

a. Dependent Variable: CNFU

Collinearity Diagnostics[a]

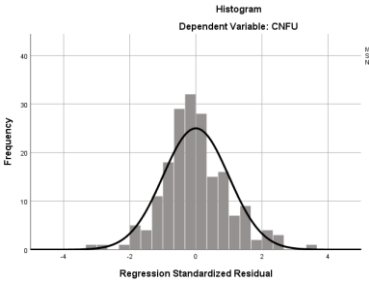
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Variance Proportions IntrinsicBenefit	Variance Proportions ExtrinsicBenefit
1	1	2,951	1,000	,00	,00	,00
	2	,029	10,121	,20	,99	,18
	3	,020	12,065	,80	,00	,82

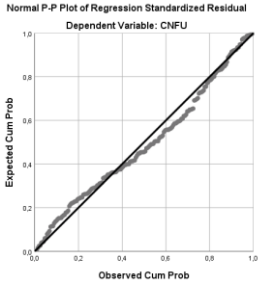
a. Dependent Variable: CNFU

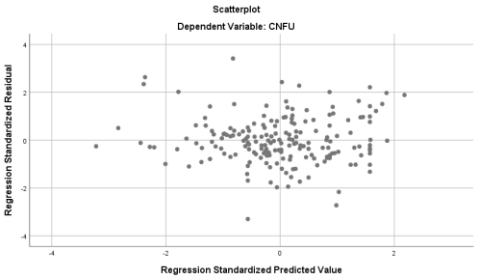
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3,8484	4,5892	4,2904	,13715	187
Residual	-2,27534	2,35402	,00000	,68585	187
Std. Predicted Value	-3,223	2,178	,000	1,000	187
Std. Residual	-3,300	3,414	,000	,995	187

a. Dependent Variable: CNFU







Standardized Shirt

Correlations

		CNFU	IntrinsicBenefit	ExtrinsicBenefit
Pearson Correlation	CNFU	1,000	,136	,033
	IntrinsicBenefit	,136	1,000	,484
	ExtrinsicBenefit	,033	,484	1,000
Sig. (1-tailed)	CNFU	.	,033	,330
	IntrinsicBenefit	,033	.	,000
	ExtrinsicBenefit	,330	,000	.
N	CNFU	185	185	185
	IntrinsicBenefit	185	185	185
	ExtrinsicBenefit	185	185	185

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,141[a]	,020	,009	,64197	2,007

a. Predictors: (Constant), ExtrinsicBenefit, IntrinsicBenefit

b. Dependent Variable: CNFU

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,523	2	,761	1,848	,161[b]
	Residual	75,007	182	,412		
	Total	76,530	184			

a. Dependent Variable: CNFU

b. Predictors: (Constant), ExtrinsicBenefit, IntrinsicBenefit

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	4,012	,227		17,710	,000		
	IntrinsicBenefit	,074	,040	,157	1,870	,063	,766	1,306
	ExtrinsicBenefit	-,023	,045	-,043	-,516	,606	,766	1,306

a. Dependent Variable: CNFU

Collinearity Diagnostics[a]

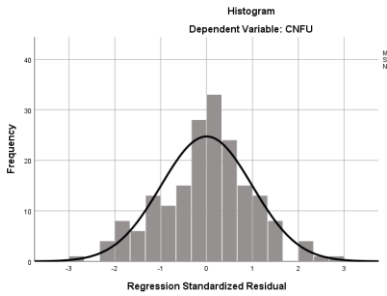
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Variance Proportions IntrinsicBenefit	Variance Proportions ExtrinsicBenefit
1	1	2,933	1,000	,00	,01	,00
	2	,044	8,191	,29	,92	,05
	3	,023	11,298	,70	,08	,94

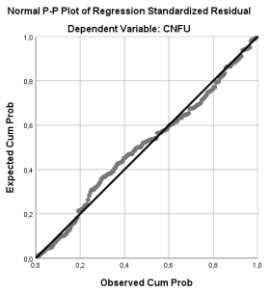
a. Dependent Variable: CNFU

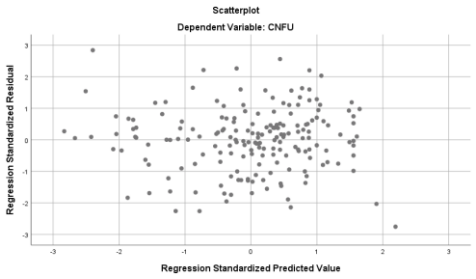
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3,9672	4,4242	4,2248	,09097	185
Residual	-1,76797	1,82155	,00000	,63847	185
Std. Predicted Value	-2,832	2,192	,000	1,000	185
Std. Residual	-2,754	2,837	,000	,995	185

a. Dependent Variable: CNFU







4. Hypothesis 3

Mass-customized Shirt

Correlations

		PurchaseIntention	CNFU
Pearson Correlation	PurchaseIntention	1,000	,000
	CNFU	,000	1,000
Sig. (1-tailed)	PurchaseIntention	.	,498
	CNFU	,498	.
N	PurchaseIntention	187	187
	CNFU	187	187

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,000[a]	,000	-,005	1,48857	2,036

a. Predictors: (Constant), CNFU

b. Dependent Variable: PurchaseIntention

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,000	1	,000	,000	,995[b]
	Residual	409,931	185	2,216		
	Total	409,931	186			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), CNFU

Coefficients[a]

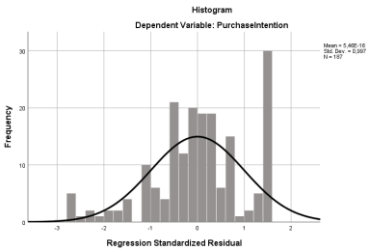
Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	4,894	,678		7,215	,000
	CNFU	-,001	,156	,000	-,006	,995

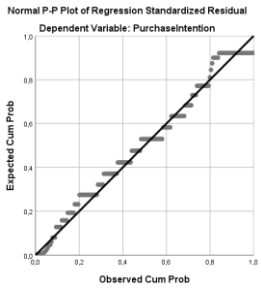
a. Dependent Variable: PurchaseIntention

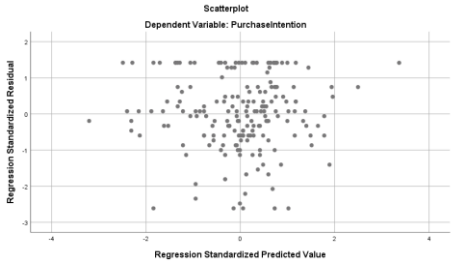
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4,8877	4,8921	4,8898	,00066	187
Residual	-3,89051	2,11180	,00000	1,48456	187
Std. Predicted Value	-3,204	3,364	,000	1,000	187
Std. Residual	-2,614	1,419	,000	,997	187

a. Dependent Variable: PurchaseIntention







Standardized Shirt

Correlations

		PurchaseIntention	CNFU
Pearson Correlation	PurchaseIntention	1,000	,147
	CNFU	,147	1,000
Sig. (1-tailed)	PurchaseIntention	.	,023
	CNFU	,023	.
N	PurchaseIntention	185	185
	CNFU	185	185

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,147[a]	,022	,016	1,40444	2,059

a. Predictors: (Constant), CNFU

b. Dependent Variable: PurchaseIntention

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7,980	1	7,980	4,046	,046[b]
	Residual	360,958	183	1,972		
	Total	368,938	184			

a. Dependent Variable: PurchaseIntention

b. Predictors: (Constant), CNFU

Coefficients[a]

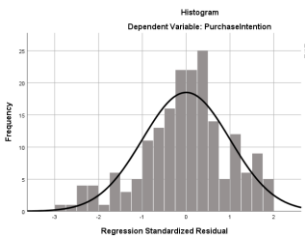
Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3,047	,686		4,441	,000
	CNFU	,323	,161	,147	2,011	,046

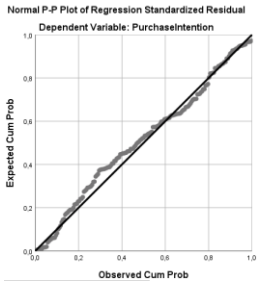
a. Dependent Variable: PurchaseIntention

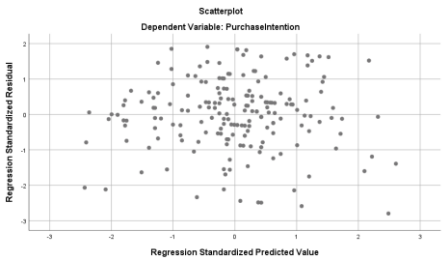
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3,9043	4,9538	4,4108	,20826	185
Residual	-3,92854	2,68197	,00000	1,40062	185
Std. Predicted Value	-2,432	2,607	,000	1,000	185
Std. Residual	-2,797	1,910	,000	,997	185

a. Dependent Variable: PurchaseIntention







5. Hypothesis 4

Mass-customized Shirt

```
**************** PROCESS Procedure for SPSS Version 3.2 *****************


          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Purchase
    X  : Perceive
    M  : CNFU

Sample
Size:  187

**************************************************************************
OUTCOME VARIABLE:
 CNFU

Model Summary
          R       R-sq        MSE          F        df1        df2
p
      ,1403      ,0197      ,4822     3,7128     1,0000   185,0000
,0555

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,7640      ,2779    13,5439      ,0000     3,2157     4,3122
Perceive      ,1004      ,0521     1,9269      ,0555     -,0024      ,2033

**************************************************************************
OUTCOME VARIABLE:
 Purchase

Model Summary
          R       R-sq        MSE          F        df1        df2
p
      ,5682      ,3229     1,5086    43,8649     2,0000   184,0000
,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     1,0549      ,6937     1,5207      ,1301     -,3137     2,4236
Perceive      ,8722      ,0931     9,3664      ,0000      ,6885     1,0560
CNFU         -,1718      ,1300    -1,3210      ,1881     -,4284      ,0848

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Purchase

Model Summary
          R       R-sq        MSE          F        df1        df2
p
      ,5625      ,3164     1,5147    85,6397     1,0000   185,0000
,0000
```

```
Model
              coeff         se          t          p       LLCI       ULCI
constant      ,4083      ,4926      ,8289      ,4082     -,5635     1,3801
Perceive      ,8550      ,0924     9,2542      ,0000      ,6727     1,0372

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,8550      ,0924     9,2542      ,0000      ,6727     1,0372

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,8722      ,0931     9,3664      ,0000      ,6885     1,0560

Indirect effect(s) of X on Y:
         Effect     BootSE   BootLLCI   BootULCI
CNFU     -,0173      ,0162     -,0554      ,0086

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

NOTE: Variables names longer than eight characters can produce incorrect
output.
      Shorter variable names are recommended.

------ END MATRIX -----
```

Standardized Shirt

```
**************** PROCESS Procedure for SPSS Version 3.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Purchase
    X  : Perceive
    M  : CNFU

Sample
Size:  185

**************************************************************************
OUTCOME VARIABLE:
 CNFU

Model Summary
          R       R-sq        MSE          F        df1        df2
p
      ,1017      ,0103      ,4139     1,9111     1,0000   183,0000
,1685

Model
              coeff         se          t          p       LLCI       ULCI
```

```
constant     3,9299      ,2185    17,9857      ,0000     3,4988     4,3610
Perceive      ,0592      ,0428     1,3824      ,1685     -,0253      ,1437

**************************************************************************
OUTCOME VARIABLE:
 Purchase

Model Summary
          R       R-sq        MSE          F        df1        df2
p
      ,6608      ,4367     1,1419    70,5465     2,0000   182,0000
,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     -,4674      ,6038     -,7742      ,4398    -1,6588      ,7239
Perceive      ,8283      ,0715    11,5803      ,0000      ,6871      ,9694
CNFU          ,1784      ,1228     1,4526      ,1481     -,0639      ,4206

************************* TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 Purchase

Model Summary
          R       R-sq        MSE          F        df1        df2
p
      ,6559      ,4302     1,1488   138,1450     1,0000   183,0000
,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant      ,2335      ,3640      ,6414      ,5220     -,4847      ,9518
Perceive      ,8388      ,0714    11,7535      ,0000      ,6980      ,9796

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,8388      ,0714    11,7535      ,0000      ,6980      ,9796

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,8283      ,0715    11,5803      ,0000      ,6871      ,9694

Indirect effect(s) of X on Y:
         Effect     BootSE   BootLLCI   BootULCI
CNFU      ,0106      ,0138     -,0072      ,0463

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

NOTE: Variables names longer than eight characters can produce incorrect
output.
      Shorter variable names are recommended.

------ END MATRIX -----
```