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Does the digitalisation of the fashion product development process lead to increased brand value?

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The purpose of this research was to find out whether the digitalisation of the fashion product development process could increase a brand's value. Product digital development is the process of apparel, accessories, and footwear being designed and developed digitally through a design software.

Both secondary data and qualitative research were the key methods used to collect information. The secondary data consisted of a study consolidated by Mckinsey & Company, regarding the digital process of product development and its impacts. The qualitative research was a one-on-one interview with an expert in the field of fashion.

The results of the research revealed that fashion consumers demand trendy products fast and product digital development enables faster time-to-market. According to Mckinsey and the interviewee, fashion companies are struggling to keep up with consumers. Product digital development optimizes the process by adding more efficiency, flexibility and speed. It also reduces waste and production costs.

It was established, that in order for a company to increase its brand value through product digital development, a company must first identify its target consumers, as not all consumers value receiving trendy products fast. Companies must focus on their target consumers' perceived values, and if speed is of value for them, then product digital development does increase brand value.

Keywords	Fashion, Product digital development, brand value, time-to-market, fashion consumers

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Contents

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1   Introduction

Globalization has had a major impact on consumer behaviour, especially in the fashion industry. Fashion consumers expect to receive trendy products fast and will choose the company that delivers those needs first (Mckinsey & Company, 2018). Hence, timing has been recognized as a crucial competitive tool (Ciarniene & Vienazindiene, 2014). This is forcing companies to come up with new processes in their value chain's, in order to keep up with the rapid demand (Lanarolle, Seram & Nanayakkara, 2020). Digitalization of the product development process is one method which potentially optimizes the value chain. Thus, the purpose of this paper is to identify whether product digital development delivers value for consumers and as a result also increases brand value.

A fundamental issue in the fashion industry is that the time it takes to bring products into the market, might take too long (Ciarniene & Vienazindiene, 2014). There is a paradigm shift in consumer buying; as brands, such as Zara are changing the entire fashion industry with their faster time-to-market (the time from the start of product development to the launch of the product into the market). Thus, fashion consumers have the same expectations for other brands.

Companies are integrating technological developments in order to become quicker, more flexible and responsive. Responsiveness means the ability to quickly incorporate consumer preferences, or in other words, the latest trends, into the development process. The shorter the time-to-market, the lower the risk of having incorrectly anticipated products entering the market. With product digital development, companies aim to create products that relate to consumer values and that are relevant in the market (Mckinsey & Company, 2018).

As most companies in the fashion industry aim to produce products that deliver value to consumers, they focus on consumer needs and their perceived values. Consumer needs differ and not everyone values having products quickly in the market, which is why product digital development might not be of value for everyone. However, it might be a new method, which increases a brand's value in the eyes of consumers who do appreciate attaining the latest trends quickly. Furthermore, there are further factors that

influence the success of product digital development which this paper will investigate and discuss.

The relationship between digital development of products and consumer values is under researched. This paper aims to establish a connection between the two. Thus, the purpose of this paper is to identify whether product digital development allows a company to satisfy their target consumers' needs, resulting in increased brand value. The methods to collect information were secondary data and qualitative research. The secondary data consists of a study by Mckinsey and Company, focusing on key findings regarding the process of product digital development. While the qualitative research conducted, is as an interview with an expert in the field of fashion. The paper will first begin with the literature review, in order to get a coherent background of the main topics involved regarding the research question.

2   Literature review

To accurately answer the question of whether digitalization of the product development process can lead to increased brand value in the fashion industry, it is important to understand the theory and literature relating to the research question.

2.1   Marketing

Especially in a competitive industry, such as the fashion industry, marketing is a crucial tool, enabling brands to standout from competitors. The aim of marketing is to engage customers and affect how they think and act (Kotler & Armstrong, 2018:156). Marketing is not only about advertising and selling, it is about understanding what consumers want and need. Although advertising and selling are also important aspects, they are only the tip of the iceberg (Kotler & Armstrong, 2018: 9). Understanding consumers' wants and needs allows a company to launch the right product into the market. In marketing, it is important to understand consumers so well that the product almost sells itself. Which is why the most crucial concept to understand about marketing is consumer needs (Kotler & Armstrong, 2018: 11).

2.1.1   Consumer needs

As consumers are the key for businesses to succeed, it is important to understand human needs and wants. Companies should be focusing in the needs and wants of their target consumers and producing products, experiences, and services which deliver value to them. Kotler and Armstrong (2018) believe that purchasing comes down to three main motivational factors; needs, wants, and demands. Human need is almost like a feeling of deprivation. Needs are basic necessities that humans require in order to survive. Wants are the form that needs take once they are influenced by external factors or by oneself (Kotler and Armstrong, 2018:13). For instance, clothing is a need, as it keeps humans warm. However, fashion is a want. When individuals can purchase their needs or wants, they become demands. Once a company understands their target consumers' needs and wants, it will help them release an accurate and successful product into the market.

Abraham Maslow's Hierarchy of Needs is very similar to Kotler and Armstrong's theory on needs and an excellent interpretation of that.
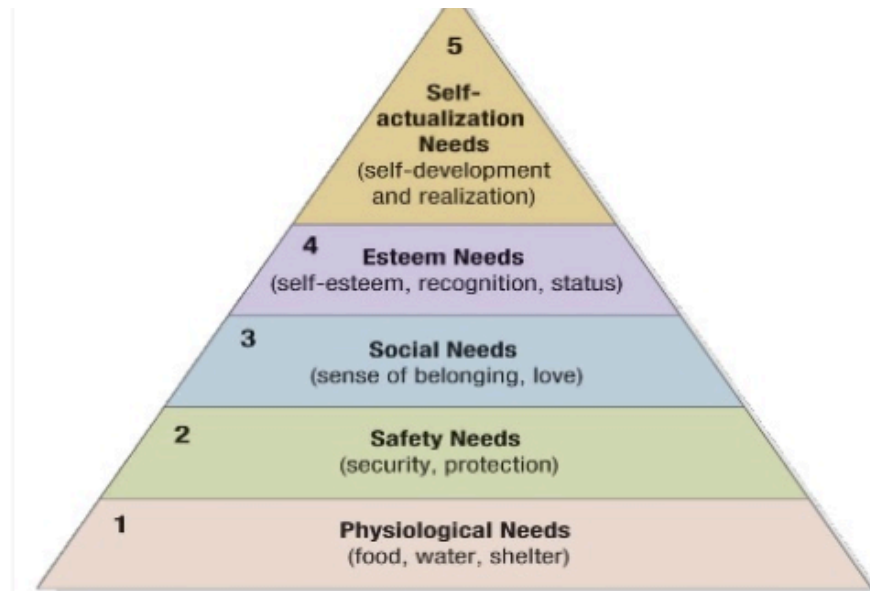

Figure 1. Maslow's Hierarchy of Needs (Kotler and Keller, 2016).

The pyramid above is Maslow's Hierarchy of Needs, which he released in his paper in 1943, demonstrating what he believed to be the most crucial human needs. His theory was, that the higher needs emerge only when human's have fulfilled the earlier needs. The model demonstrates the following – first come physiological needs, which are needs required to survive, such as food, water and warmth. Safety needs, are feelings such as the feeling of security. Social needs are requirements for belonging and affection. Esteem needs, would be the feelings of recognition or feeling good about oneself. And lastly, self-actualization needs stand for self-development and self-expression (Ward & Lasen, 2009).

When humans feel like their needs are not satisfied, they will either look for an object that will satisfy their needs or in some other way try and reduce it (Kotler & Armstrong, 2018: 11). Marketers must first decide their target consumers and only then can they recognize their relevant needs and perceived values, in order to appeal to them with the right products (Ward & Lasen, 2009).

2.1.2 Customer perceived value

Consumers find value from different needs. A consumer research from the University of Washington, indicates that in developing countries, consumers value lower needs, such as physiological needs. Whilst in prosperous countries, in addition to fulfilling physiological needs, consumers concentrate more on the higher needs (Yalch and Brunel, 1996). This is called customer perceived value - when a person decides what to buy based on what aspects they personally find valuable (Kotler & Armstrong, 2018: 37). Thus, companies must first decide who their target consumers are, in order for them to understand their values and provide accurate products.

2.1.3 Target marketing

The act of a company choosing who they want to serve is called target marketing. It could be assumed, that companies should aim to serve all customers. However, if a company aims to serve all customers, they might not serve any customers well (Kotler & Armstrong, 2018: 33). Companies today understand that they cannot satisfy all consumers. They select whom they can serve the best and make them their target consumers. Companies then create marketing strategies, in order to build a connection with the consumers. That is why it is crucial for companies to choose their customers and concentrate on their needs, wants, and values. Fashion consumers value the right designs at the right time. They see a new trend and want it fast (Mckinsey & Company, 2018). That is why some fashion brands are aiming to fulfil those consumer values with the help of more agile value chains.

2.1.4 Porter's value chain

According to the Production Concept, consumers value and favour products which are easily available (Kotler & Armstrong, 2018: 33). It is one of a few marketing strategies put in place in order for companies to try and deliver value for their target consumers. Thus, companies focus on improving their production and distribution methods. As consumers in the fashion industry value products that are easily available, some companies focus on having a value proposition, which fulfils those consumer needs. After defining their value proposition, which could be for instance delivering fashionable

products faster, they concentrate on improving their value chain. Porter's Value Chain (1985) aims to capture consumer values and deliver products with value. The value chain is the process of turning raw materials into finished goods – through each process aiming to add value to the product and doing so at the lowest possible cost (Porter, 1985:11). The processes are a series of activities demonstrated in figure 2.
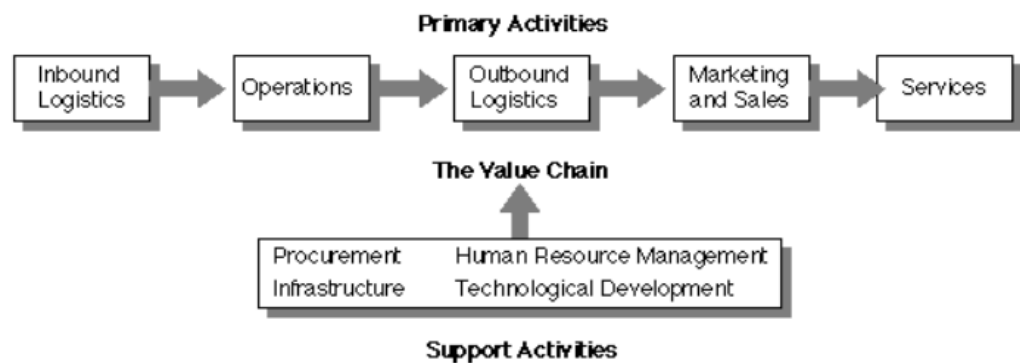

Figure 2. Michael Porter's value chain (University of Cambridge, n.d.)

How a company creates a value chain is through specific activities which are primary activities and support activities. Porter considers the primary activities to be:

1. Inbound Logistics – includes all the activities of receiving raw materials coming into a business.
2. Operations – the process of transforming the raw materials into a product.
3. Outbound Logistics - includes all the activities of allocating products into the market.
4. Marketing and Sales – the strategies a company uses to make sure their products reach their target consumers.
5. Service – making sure the product remains in the market and is working effectively.

The support activities play roles within the primary activities, these activities are:

1. Procurement – the acquisition of resources for the company.
2. Human Resource Management – all the activities revolving around employees.

3. Infrastructure – the support systems and functions serving a company's needs
4. Technological development – includes developing the equipment, hardware, and software of a company

Initially, the competitiveness of a company depends on its value chain. For instance, since fashion consumers value speed and want the latest trends fast, some companies are using technological developments in order to become even more agile, fast, and fulfil those consumer needs.

2.2 Product development

As the value chain's primary activities can be enhanced with support activities, some fashion companies are implementing technological developments into the operations of the value chain. Digital prototypes are being used as essential tools in the product development process. This integration can speed up the development process and positively affect competition (Papachristou and Bilalis, 2015). One technological development is product digital development, which is a simplified and more agile version of the traditional product development process. However, it is first crucial to understand how fashion companies operate before defining product digital development.

Figure 3. The go-to-market process for fashion companies (Mckinsey & Company, 2018).

Typically for fashion companies, the go-to-market process consists of four main phases: product creation, design, and development; sell-in; production and logistics; and sell-out. The first phase, creation, design, and product development, usually takes the longest and this is where the greatest opportunity for compressing timing lies (Mckinsey & Company, 2018). Within this phase, a concept or a story is first created, then the products are designed, and lastly, the product is developed. Product development is a time consuming process; a number of samples are prepared, which have to be approved, tried on, and tested. Until finally, the product is suitable for the market (Moretti and Braghini Junior, 2020). As a matter of fact, the traditional product development process is based on trial-and-error (Papachristou and Bilalis, 2015). It is a lengthy process and due to the several failed samples, it is also unsustainable.

Furthermore, ineffective product development can lead to poor quality designs which cannot be sold. Successful product development involves a company anticipating trends and their target consumers' demands. Companies need to make sure that the right product enters the market at the right time. This is why manufacturers seek to shorten product development, sourcing, production and/or delivery cycles (Hines & Bruce, 2007:196).

2.2.1 Product digital development

Figure 4. Product digital development demonstrated by CLO Virtual Fashion (CLO | 3D Fashion Design Software, 2020).

During this era of time-based competition, companies need to become more market sensitive (Christopher, 2000). Market sensitivity, means that the value chain is able to respond to consumer demand and product digital development could be a key factor in creating more agility. Product digital development is the process of products being designed and developed digitally through a design software. Digital development shortens the time-to-market, reduces production costs, and reacts to trends at a faster pace (Papachristou, 2020). As seen in Figure 4, it allows designers to experiment with different fabrics and materials on realistic 3D models before the product is developed. In contrast to traditional product development, in which several samples are created. The digital development method is more sufficient, sustainable, and saves production costs Papachristou, 2020).

2.2.1.1 The development process

In detail, digital development first begins with defining the requirements for the upcoming collection. Next, a concept is created, which helps tell a story. After the

concept creation, the products can be sketched and developed fully digitally. Then, production takes place and the products are displayed in showrooms and sent to stores. This process is a new concept, enabling more speed and responsiveness. Instead of the traditional development process which can take up to 12-14 months, or even longer, digital product development can decrease the time by half. It has been established in previous research, that some of the benefits digital development allow are a quicker design and development process, increased product quality, and decreased development costs (McKinsey & Company 2018: 17).

2.3   Branding

While some fashion companies aim to satisfy consumer values and needs through delivering products faster, the competition in the fashion industry remains fierce. This is where branding comes along. Companies need additional features to help them standout in the market and branding is a strategy helping them provide more consumer perceived value.

2.3.1   History of branding

Branding originally began as a means to recognize the goods of one producer of those from another (Keller, 2013: 30). For instance, it was used to differentiate cattle's owners. The word brand, comes from the Norse word "Brandr", which means "to burn" and this was the way livestock was branded (Keller, 2013: 30). Branding, in one form or another, has been around for centuries and can be traced back to ancient pottery, where trademarks have been identified. From then on, branding began to slowly emerge, as it was a way to help consumers distinguish different sellers. Laws were passed, for instance in England in 1266, which required all bread makers and gold and silversmiths to label their goods (Keller, 2013: 62). Manufacturers began to recognize that having more creative names increased demand. And so, by 1915, manufacturer brands were well established and even admired by consumers. Throughout time, with globalization and population growth, demand increased. Companies began seeing the positive effects of having a strong brand, in comparison to the negative effects of a

weak brand. With more competition in the market, branding evolved; instead of just having a name, companies aimed to establish clear brand image.

2.3.2 Branding now

As this research concentrates on whether digital development adds customer perceived value for a company, it is important to acknowledge what else makes a company strong. A brand is an intangible yet powerful corporate asset (Kourovskaia, 2013). Branding has advanced enormously over the past decades, due to increased globalization and competition, branding now requires a great amount of attention in order to have a successful businesses. Branding does not only mean having a striking name, logo, or slogan, it is much more than that. Branding is the entire company's image – its values, employees, products, and its engagement with customers (McGraw-Hill 2010:2). Branding creates awareness and a reputation in the marketplace (Keller, 2013: 30). Allen P. Adamson, mentions in her book, Brand Simple (2006), ''Branding is about signals - the signals people use to determine what you stand for as a brand. Signals create associations. Brand associations, meaning the relationship, feelings and judgment a person has towards a brand, constitute a consumer's image of the brand (Keller, 2013: 339). Kotler and Armstrong (2018) believe that through branding, companies can target consumer needs and wants and so, customers can create a connection with a company. This indicates that the way a brand presents itself is important, since consumers are attracted to the values they can relate to, which also creates more value for the company.

2.3.3 Brand equity

As so far established, successful branding should ensure that a product is the preferred choice for the target consumers. Branding affects the performance of a business, since it is the core of a business and the key element which attracts consumers and helps them decide whether they choose to buy from a brand (McGraw-Hill, 2010:2). Brand equity is a marketing concept which has only arisen in the 1980's and it highlights the fact that branding is an important marketing strategy. There are several definitions of brand equity, however, one widely accepted version is that brand equity is the value that is added to the product by branding (Keller, 2013: 57). So what attributes make a

brand strong? Customer based brand equity is a concept which approaches brand equity from the perspective of a consumer. Positive brand equity is established when there is a connection between the consumer and the brand and as a result, the company's performance goes up (Keller, 2013: 68). In contrast, if consumers have negative experiences or they cannot relate with a brand, then company performance goes down. That is why understanding the needs and wants of consumers and then creating products to satisfy them, is the core of successful marketing and an attribute that makes a brand strong. Fashion companies need to ensure that their products relate with their consumers' desired feelings, opinions, beliefs, etc. (Keller, 2013: 68). Since fashion consumers want the latest trends fast, companies need to ensure that their products fulfil those demands.

2.3.4 Branding and business performance

As established, branding and consumer behaviour go hand in hand, as branding enables consumers to build a relationship and emotional importance with the company and its products. The book, Consumer Behaviour – A European Perspective, by Solomon, Bamossy, et al. (2010) states that people often buy products not for what they do, but for what they mean. This means that not only is the product's primary function important, but the meaning the products have in our lives goes well beyond the tasks they perform. Thus, people will always choose the products which have an image or even a personality that relates with their values (Solomon, Bamossy, Askegaard & Hogg, 2010: 37). That is why branding is so crucial, since it is one of the most important ways through which meaning is created. Effective branding affects consumers' perception of the brand. If consumers have a positive experience with the brand, then it affects consumer behaviour positively, resulting in more buying and better business performance, as Keller also mentioned.
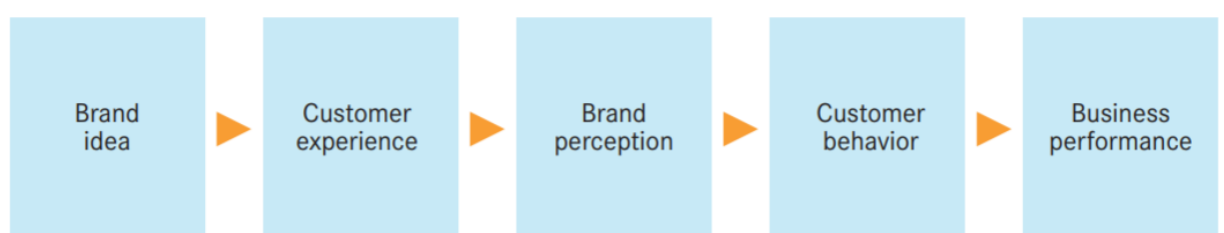
Figure 5. Branding and business performance (McGraw-Hill, 2010).

2.3.5   Consumer behaviour

As so far established, companies need branding in order to relate to consumers' values and essentially increase their brand value. For companies to produce products and create a brand image that deliver value for their consumers, they need to first understand how consumers behave and what they demand.

Marketing highlights the importance of understanding consumers and their behaviour in the marketplace (Kotler & Armstrong, 2018:210). However, it is challenging to predict consumer behaviour and interests, since consumers might place certain sentimental values towards the products they want (Kotler & Armstrong, 2018). In addition to that, there are several factors which influence buying behaviour. One factor which influences buying behaviour is brand communities. People tend to create brand communities, which means that consumers have communities based on their consumption of a certain product. There can also be felt communities, in which people have an imaginary community, for instance if a person drives a certain car and sees another person with the same car, they might greet each other although they do not know each other (Solomon et al., 2010: 38). By buying a certain product, people might believe that they are part of that brand community and it could be argued that fashion consumers have brand communities, as fashion is very distinctive and the first thing you see when you look at a person. This could relate to Maslow's Hierarchy of Needs. Specifically to the social needs – by being part of a brand community, a person gets a sense of belonging.

Furthermore, brand associations have a major influence on consumer behaviour and the decision making process, as positive brand associations will encourage consumers to buy from that company. Brand associations are a key element for brands in order to increase value for a company (Keller, 2013:261). Evidently, branding is a major contributor to consumer buying behaviour, which means that if a company would implement product digital development, it might not guarantee that their consumer perceived value increases.

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2.4 Fashion marketing

However, how does marketing differ in the fashion industry and what is the behaviour of fashion consumers?

2.4.1 What is fashion?

There is a need to define fashion, as this paper concentrates on the fashion industry. Specifically the apparel and footwear industries are what many consider to be some elements of a fashion industry (Hines & Bruce, 2007:2). The apparel and footwear market has grown exponentially due to globalization; the shift of companies across the world aiming to satisfy global consumers (Hines & Bruce, 2007:13). If taking into consideration Maslow's hierarchy of needs, part of the physiological needs are food and clothing. They are basic needs for humans and come as a top priority. This is one contributor to why the apparel and footwear industry has been significantly growing through globalization (Hines & Bruce, 2007:2).

Nevertheless, fashion is not simply defined as only apparel or footwear. According to the book, Marketing Fashion (2015), fashion is by its very nature a marketing strategy. If the term fashion would not be used, then the words would simply be called apparel or footwear, killing the essence of fashion (Posner, 2015:5). The characteristics of fashion are frequency of change and relative newness of a product. Change especially is a fundamental requirement of fashion. Furthermore, fashion is important for expression of social identity and aesthetic taste (Hines & Bruce, 2007:169). For some people, fashion relates specifically to the esteem and social needs by increasing ones self-confidence as well as by giving a sense of belonging.

2.4.2 Fashion trends

One of the benefits resulting from product digital development is that products are delivered faster into the market, which means that the products can be more focused on current fashion trends. Trends refer to products which relate to fashion in a particular season. Trends provide insights into future fashion products and are

important to follow in order to make sure the value chain delivers relevant products (Hines & Bruce, 2007:170). A product will sell if it is the right trendy colour, but if the colour would not be in trend during that particular season, it would suffer (Hines & Bruce, 2007:171).

2.4.3   Fashion consumers

Consumers now have more knowledge about trends and about fashion brands than at any time before. Because of digitalization and social media, some fashion consumers are even more knowledgeable about fashion than many brands are. They are also aware about the environmental aspects of the industry and questions are being raised. However, even if consumers value products that are ethical or environmentally friendly, their behaviour does not always translate that. Consumers' environmental concerns do not significantly affect their buying behaviour. However, because of the high competition in the fashion industry, consumers might prefer products which fulfil more than one of their values. For instance, if a consumer finds a product that they can get fast and that is sustainable, they will choose that product over another. Furthermore, consumers now have greater knowledge on fashion, they have increased expectations and are more demanding of a certain service and value. As a result, not only do fashion companies have the pressure of increased competition, but also meeting the demands of consumers and identifying to their values (Hines & Bruce, 2007:200).

As mentioned before, consumers do not only prefer companies which deliver value to them, but they also prefer companies which they can relate to. This is why the brand image is important. Because of its aesthetics, the brand image has always been a big factor in fashion. Especially in today's digital and 'visual' society, fashion marketing focuses on brand image. Companies that have managed to efficiently market their brand image have made huge profits (Hines & Bruce, 2007:202).

To conclude, the fashion market is continuously changing, as new trends are driving change. Time has been recognized as a competitive asset. Being able to meet consumer demands for shorter delivery times is important during this era of time-based competition (Ciarniene & Vienazindiene, 2014). One of the attributes influencing a company's success is their ability to 'refresh; their products and keep up with trends. In

this market of short-life cycles, companies have to spot trends quickly and translate them into products. The speed of time-to-market is critical for fashion companies, as companies that are too slow will either miss sales opportunities or by the time the product enters the market, demand is not as high anymore, leading to marked down (discounted) products (Christopher, Lowson and Peck, 2004).

As companies are producing products that deliver value for consumers, they should take into account speed. Although product digital development does speed up the time-to-market, it might not necessarily guarantee increased consumer perceived value. Which is what this paper aims to find out through qualitative research and secondary data.

3   Research methodology

After reviewing the literature and understanding basic theories of marketing, product development, branding and fashion marketing, the paper now moves onto the next section, research methodology.

3.1   Defining research

Marketing research is useful because companies can use it to get a better insight into customer motivation, purchase behaviour and satisfaction. According to Kotler and Armstrong (2018) research is a process consisting of four logical steps. As seen in Figure 6 these steps are; Defining a problem and posing a research question, developing a research plan for collecting information, implementing the research plan – collecting and analysing the data, and finally presenting an answer for the research question. Research is important because although there is a variety of literature, new discoveries and improvements can still be made for everyday practices (Creswell, 2012:3-4). Such as how this paper researches whether product digital development is an efficient new practice for fashion companies.

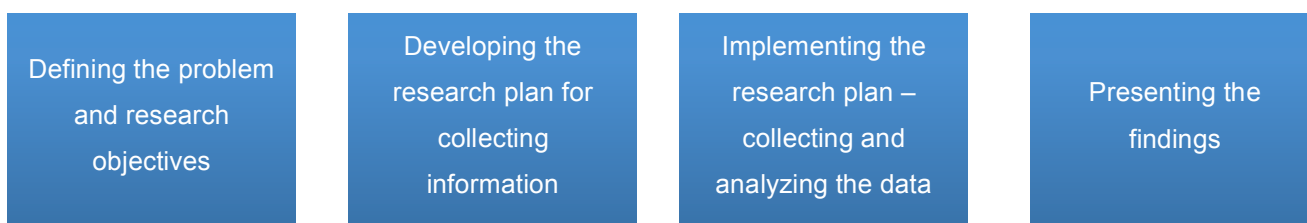| Defining the problem and research objectives	Developing the research plan for collecting information	Implementing the research plan – collecting and analyzing the data	Presenting the findings

Figure 6. The research process (Kotler and Armstrong, 2018:130).

3.2   Research objectives

After the first step, which is defining the research problem, the researcher has to select a research objective. For marketing research, there are three different types of research objectives; exploratory research, descriptive research, and casual research.

The goal of exploratory research is to collect preliminary information, which helps define the problem and come up with a hypothesis. On the other hand, descriptive research is a methodology which describes markets, environments, consumers, etc. While casual research tests the hypothesis and investigates the cause and effect relationship (Kotler and Armstrong, 2018:131). It is important to define what type of research objective to concentrate on, as it guides the entire research process.

This paper is a combination of both exploratory research and descriptive research. As established, fashion consumers value speed, wanting trendy products fast and some companies are implementing product digital development as a means to become faster. However, whether digital development is of perceived value for consumers, remains the defined problem. The hypothesis is that through product digital development, consumer perceived value increases for the company. Descriptive research is used to explore the current nature of the fashion market and fashion consumers' values, as they are the focus group. Initially, the research begins with exploratory research defining the problem and hypothesis and proceeds onto descriptive research, exploring the fashion market.

3.3   Developing the research plan

Once the research problem has been defined and the objectives selected, it is time to come up with a plan on how to efficiently collect the exact information needed. Information can be gathered through secondary data or primary data. Secondary data is information which already exists, it is research that other people have already collected, such as studies, surveys or experiments (Kotler and Armstrong, 2018:132). This paper includes secondary data, as it highlights findings from a study made by Mckinsey and company in 2018. Secondary data is helpful, as it further defines the research problem and objectives. A second method to collect information is through primary data, which is information that is specifically collected for the research problem at hand (Kotler and Armstrong, 2018:133). As secondary data can be quite general, primary data is often necessary. When secondary data is found, the researcher has to evaluate the information carefully in order to make sure that it is relevant for the topic (Kotler and Armstrong, 2018:132). This paper also includes primary data through the form of qualitative research, as product digital development is a under researched topic

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and therefore there is not much secondary data investigating the research problem at hand.

When collecting information regarding the defined research problem, John W. Creswell (2012), mentions two approaches; quantitative and qualitative research. Quantitative research is used when the research problem can be solved by collecting data through a large sample of people. It is descriptive and aims to collect numerical data through questionnaires. The researcher asks narrow questions in order to obtain measurable data, which is then transformed into charts, graphs, etc. (Creswell, 2012:13). On the other hand, qualitative research is used when the researcher wants an in-depth understanding of the subject in matter. This is done through collecting data from a small sample of people in their natural setting, for instance with a personal interview (Creswell, 2012:16). One can also choose to combine both quantitative and qualitative research if they wish to include both numerical data as well as personal data.

3.3.1 Qualitative research

Qualitative research is the approach used in this paper, in order to get considerable insights and knowledge of the research problem. Qualitative research consists of a simultaneous process of analysing data while you are also collecting it. The data collection and analysis are done simultaneously. When a researcher is collecting data, they might also analyse information that is previously collected, looking for the key ideas and arguments. This approach can also be seen in this paper, as new insight and discoveries have arisen while researching.

The aim of this research is to find out whether in the fashion industry, digitalization of the product development process can lead to increased brand value. The qualitative research has been conducted through a personal interview with an expert of the fashion industry. An interview consists of the researcher and the interviewee, during which the interviewee answers the questions with personal or demographic information (Creswell, 2012:382). The interview in this paper is a qualitative interview done through the phone. The researcher asks open-ended and unbiased questions, giving the interviewee the opportunity to best voice her professional experiences. Open-ended questions allow the interviewee to create the options for responding, without being

forced into responding with a specific answer (Creswell, 2012:218). As seen in Figure 7, the questions have also been structured into themes. Themes enable the researcher to ensure that the literature covered occurs in the questions (Creswell, 2012:247).

One-on-one interview – Qualitative survey	
Themes	Questions
Fashion consumer's values	1. As you're familiar with fashion consumers, have you noticed that consumers value having the latest trends fast? 2. Do you believe fashion consumers care about the environmental aspect of fashion or does the importance of speed overcome that?
Brand value	3. What have you noticed are some factors that increase the value of a brand?
Time-to-market	4. Do you have concerns about what happens to brands if they have slower time-to-market? 5. Have the brands you worked with struggled to have faster time-to-market? Why did they struggle?
Impacts of digitalizing the product development process	6. As more brands are introducing digitalization into their value chains, have you also come across product digital development and how were you introduced to it? 7. Have the brands you have worked with used product digital development? How has their experience been with it? 8. If you do know a brand using product digital development, how is their performance in regards to fulfilling consumer values? 9. As you have experience with several fashion brands, do you believe more brands should implement product digital development? 10. Do you believe that the digitalization of the product development process leads to increased brand value for a company?

Figure 7. Interview questions

The reason why a personal interview is a good data collection method for this research paper is because it provides an in-depth understanding of the interviewee's professional experiences regarding the subject matter at hand.

3.4 Validity & reliability

In qualitative research, there is no single approach to analyse the collected data, as the research is quite interpretive and the researcher's personal assessments (Creswell, 2012:238). As the researcher can choose information from several sources, this can lead to researchers coming up with different outcomes for the same topic. Nevertheless, as this paper directly interviews an expert in the field of fashion, the results are reliable. The expert has several years of experience and deep knowledge and insights of fashion companies and fashion consumers.

3.5 Limitations

However, while researching the subject matter at hand, some limitations occurred. Limitations are potential problems the researcher comes across while collecting information for the topic at hand (Creswell, 2012:199). As mentioned earlier, due to the fact that product digital development is a fairly new concept, it is an under researched topic and there is not much data proving its success. Also the fact that this paper focuses on specifically product digital development in the fashion industry limits the research even further. These are considered subject matter limitations for this research.

4   Research results

4.1   Secondary data – A study by Mckinsey & Company

The secondary data collected in this section focuses on research that Mckinsey & Company conducted in 2018, regarding the process of product design, development, and delivery. The insights of the survey consist of the opinions of 54 executives from the fashion industry, who are involved in the product development process. Together, the executives are responsible for over USD 110 billion in revenue (Mckinsey & Company, 2018).

There is a paradigm shift in consumer buying; as companies, such as Zara are changing the entire fashion industry with their faster time-to-market, and so, fashion consumers have the same expectations for other businesses. It is important to understand that the entire business interface is changing for the fashion market. Fashion consumers expect to receive trendy products fast and will choose the company that delivers those needs first (Mckinsey & Company, 2018).

According to the study by Mckinsey, the majority of the 54 executives stated that they are too slow in delivering new products into the market and that it is now a priority to improve the speed of time-to-market. More than half of the respondents stated that reducing speed to market was one of their top-three goals. However, more than 70 percent of the executives stated that their companies lacked digital tools and knowhow. The executives had also agreed that digitization is a key function which optimizes the process of product development and it is growing in importance. Digital development is a process accelerating time-to-market, improving merchandising as well as adding more efficiency (Mckinsey & Company, 2018).

The study conducted by Mckinsey, found that companies which have implemented product digital development shortened their sampling process by two weeks or more. They have also seen a decrease of 50 percent in the number of samples they produce as well as in the costs involved. Digital development enables companies to refresh styles quicker and more frequently (Mckinsey & Company, 2018).

To conclude the findings, fashion companies are struggling to keep up with consumers. Hence, executives have recognized that they need value chain improvements and digitalization in order to keep up with the demand. With product digital development, companies aim to create products that relate to consumer values and that are relevant in the market (Mckinsey & Company, 2018).

4.2   Qualitative research – a one-on-one interview

The goal of the qualitative interview is to get deeper insights into consumer perceived value and whether product digital development could be a beneficial tool to do so. This will help answer the research question "Does the digitalisation of the fashion product development process lead to increased brand value? Once insights and knowledge have been gained, a sufficient analysis can be concluded.

First, the researcher introduces herself and the research problem. The researcher then asks the interviewee to introduce herself and describe her profession.

The interviewee is Stephania Schirru, the founder and CEO of Dynamically Branded LLC, a boutique marketing company based in Dallas, Texas. Stephania is a PR and marketing consultant and an expert in those fields. She is a key individual to interview, as she has helped brands grow into multi-million dollar brands and can explain the fashion market from an expert's viewpoint.

The interview then moves onto the first section of questions, the section's theory is the values of fashion consumers.

4.3   Fashion consumer's values

As mentioned before, companies aim to produce products that deliver value for their target consumers, thus they focus on consumer needs and perceived value. It has been established in the literature review that fashion consumers value speed and reaching trendy products fast, which is why some companies are aiming to fulfil those

values with product digital development. Consequently, the first section of the interview focuses on consumer perceived values.

The researcher aims to find out whether the respected interviewee believes that speed correlates with consumer values. The interviewee stated the following, "Yes, speed absolutely relates to consumer perceived values. Especially the rise of fast fashion brands such as Fashion Nova, demonstrates the need consumers have to purchase garments faster. Customers do not want to wait 4-6 months anymore after fashion week to receive trendy products. Designers such as Tommy Hilfiger, Fenty, and Burberry have successfully implemented the "See-Now-Buy-Now" approach for several seasons now. Furthermore, smaller design houses have shifted towards a faster strategy as well with capsule collections". To clarify the interviewees response, see-now-buy-now refers to brands selling their products directly after seeing them in a fashion show. While usually brands wait 6 months after fashion shows to release the products into the market. This is another approach companies are taking to become faster. What this proves is that many fashion companies have realized the importance of speed.

However, this question relates directly to an issue that is on the minds of many consumers – the environmental impact of fashion. Whether consumers value the environmental aspect or the speed of products entering the market is a question that companies should keep in mind. The interviewee believes that there is a clear trend towards sustainable fashion and lowering the carbon footprint. However, the environmental aspect is not a trade-off to speed of production. If consumers want products quickly, then they are more likely to invest in brands that represent those values and wants.

What these consumer value related questions indicate is that fashion companies do need to focus on being faster, but also on making sure that their brand images convey other values that consumers might relate to, such as the environmental aspect. As within the highly competitive fashion industry, consumers might prefer products which fulfil more than one of their values. For instance, if a consumer finds a product that they can get fast and that is sustainable, they will choose that product over another (PWC n.d.).

4.4   Consumer perceived brand value

As mentioned in the literature review, consumers prefer brands which relate to their values. Branding is important because through branding companies can relate to consumer values and potentially create relationships. According to the interviewee some other factors which are also important for companies in order for them to even further increase their consumer perceived values are, social consciousness and marketing through social media. "Socially conscious brands that sustainably handcraft shoes by empowering artisans in Africa, have seen a huge boom in the marketplace. Also, brands such as Versace, Balmain, and D&G, which incorporate influencer or celebrity marketing with intense social media push have gained value in the minds of consumers as well as on the stock market". Sustainability and social consciousness also contribute to the associations consumers have of a brand. Fashion companies should aim to demonstrate to their consumers the positive impact digitalization has on for instance sustainability. The interviewee mentions that, consumers are concerned with issues such as eco-friendly/recycled materials, fair compensation of workers, elimination of sweatshops, charitable causes, or sourcing/producing locally. As established in the literature view, consumers go for brands which satisfy more than one of their values. Thus, making consumers aware of those brand attributes through social media marketing is important, in order for consumers to build a positive image of the brand. Speed of time-to-market is an important factor, however, other factors also influence a company's success.

4.5   Time-to-market

The speed of time-to-market is important to concentrate on, as it is one of the biggest implications of product digital development. According to the interviewee, without faster time-to-market, trend focused brands simply will not compete. Fashion consumers do not want to buy last season's trends at full price, the sales opportunities have been missed. However, companies that have slower time to market but offer timeless pieces will not have issues even if they have slower time-to-market.

As it was mentioned in the literature review, it is important for companies to pay attention to upcoming trends. If intense market research has been conducted, future trends can be identified early and more relevant products enter the market. According to the interviewee, often, out of a 40-piece collection, approximately 10-15 garments perform well. The interviewee also mentions that brands which have aimed to have faster time-to-market, have struggled, "When you have to produce faster, mistakes happen easier. It can be costly to correct them". As product digital development is a fully digital process, there is less risk for man-made errors and correcting the samples takes less effort. Consequently, it is becoming apparent that the faster time-to-market which product development offers is of benefit for a company aiming to be faster.

4.6   Impacts of digitalizing the product development process

The next theme specifically concentrates on product digital development and on the interviewee's professional insights of the process. As the interviewee works more on the marketing and PR side, it was interesting to find out whether she has been exposed to the concept of product digital development. The interviewee stated the following, "When I have to describe the collection for marketing and press purposes, the design team shares ideas, sketches, and mood boards digitally. I also noticed that digitalization makes the procurement of raw materials easier. When the fabric is already designed digitally, for example, it reduces errors once the manufacturer is ready to produce". This comment links directly to some of the benefits mentioned in the literature review; product digital development, allows the development process to be more flexible, fast, and cost efficient. However, when it comes to implementing the new digital process, there might be some resistance to change by design and development teams. As it takes time to become comfortable with digital design and development and to find the most efficient software. Nevertheless, this resistance can be overcome with successful trainings. Ultimately, the advantages such as time efficiency, reduced samples and waste outweigh the discomfort.

According to the interviewee, in order to compete in the challenging fashion marketplace, companies do have to implement some sort of digitalization into their value chains. As the positives outweigh the negatives since processes become more

flexible and faster. There are several fashion brands still missing out on the benefits of digitalization.

However, implementing product digital development does not necessarily mean that a brand will deliver value for consumers. The interviewee states the following, "There are still couture and bridal designers who develop products successfully the traditional way and are found in every bridal store across the world". What this indicates is that it depends whom a company's target consumers are. For instance, if the company focuses on bridal clothing, as the styles are ageless and not based on trends, speed does not matter. However, if a company's target consumers are consumers who value trends and fashion, it can be assumed that speed does matter.

5   Discussion and research recommendations

What this research aimed to establish was whether product digital development could lead to increased brand value. The research paper began with a literature review which covered all the major areas touching the research question, such as marketing, product development, branding, and fashion marketing. The second chapter of the paper discussed research methods in general and which specific methods were used in this paper to collect information. The research methods used were secondary data and qualitative research. Consequently, the third chapter discussed the findings from a study made by Mckinsey & Company as well as the results from an interview with an expert in the field of fashion. Lastly, the paper moves onto this chapter, the discussion and recommendations.

5.1   Discussion

The discussion will recap the major findings compared with the literature review, in order to establish an answer to the research question, "Does the digitalisation of the fashion product development process lead to increased brand value?

Whether product digital development and the accelerated speed of time-to-market brings more value for fashion companies depends on several factors. First, a company has to define its target consumers in order to understand their needs and deliver value for them (Ward & Lasen, 2009). As it can be seen from Maslow's Hierarchy of Needs, consumer needs can differ. This was also established during the interview. Some consumers only purchase clothing for their physiological needs and do not care about the trendiness of the products. Whilst other consumers place deeper meanings into clothing, such as social and esteem needs. Social needs are the needs for belonging and affection, and dressing a certain way might make a person feel like they belong into a group. As the Consumer Behaviour section mentions, humans create brand communities, which emphasize the feeling of belonging (Solomon et al., 2010: 38). Fashion consumers might also relate their esteem needs with fashion. Esteem needs are the feelings of recognition or feeling good about oneself. There is no denying that fashion has a major impact on self-esteem, and perhaps this is one need for

consumers who want trendy products (Ward & Lasen, 2009). What this proves is that consumers and their needs differ, if a company wants more consumer perceived value through product digital development, it has to first identify its target consumers.

While some fashion companies aim to satisfy consumer values and needs through delivering products faster, the competition in the fashion industry remains fierce. This is why branding is important, as it is an additional feature helping companies provide more consumer perceived value. As mentioned in the Branding and Business Performance section, a company's perforce depends on the brand image. However, brands need to first focus on their target consumers' needs, then come up with a brand image that the consumer's can relate to. Consumers place sentimental values towards brands and tend to go for companies which posses brand images that relate to their perceived values. As fashion consumers value trends, they expect to receive products fast and do not want to wait too long for trendy products. However, consumers have other values as well, which the interviewee notes, such as environmental aspects. Thus, it is important for brands to convey these values, since consumers are more likely to buy from brand that satisfy more than one of their values. The interviewee also mentions that customers are more likely to invest in brands that represent their values. Therefore, even if products would enter the market faster, consumers still take into consideration their brand associations (Keller, 2013:261). Which is why it is important for companies to make sure that they have the right brand image in place for their target consumers, in order for them to increase their brand value. With that being said, product digital development would mainly be of value for consumers who value trendy products, as it enables the products to have faster time-to-market.

The study conducted by Mckinsey is an excellent source demonstrating the importance of increasing time-to-market with digital product development. One of the major consumer perceived values that digital development satisfies is getting relevant trendy products fast. As digital development enables a more flexible value chain, quick responses are possible. This process cuts down the time of new fashionable products entering stores (Ciarniene & Vienazindiene, 2014). Product digital development allows companies to react in real-time to consumer needs, consequently being able to stay on track with trends and fulfil the needs of fashion consumers.

Companies who are focusing on trends but still apply the conventional developed method, have a greater risk of launching the wrong product into the market or missing a trend completely. While companies who have implemented product digital development shortened their development processes and experienced a decrease of 50 percent in the number of samples they produce as well as in the costs involved. Although there is some resistance by design and development teams in implementing the new development model, through proper training and efficient software, the process can be learned. Ultimately, the advantages outweigh the discomfort.

Through the research collected, it can be confirmed that product digital development does increase the speed of time-to-market. Not only does digital development accelerate time-to-market, it also adds efficiency, saves costs, and reduces waste from samples (McKinsey & Company, 2018). These factors could also contribute to increased brand value. Digital development allows a fashion company the opportunity to react to trends faster and produce products of value for consumers who appreciate fashion. When brands hit the stores with trendy products and are some of the first in doing so, consumers will buy from them, which results in increased brand value (McKinsey & Company, 2018). However, as mentioned before, there are also other implications that consumers value and it is crucial for a brand to identify who their target consumers are, in order to make sure they address their specific values.

5.2   Further research recommendations

When taking this research further, and considering the next steps, a quantitative and qualitative case study with a company would be useful. The case study should focus on a fashion company which has been implementing product digital development for a while, and it should analyse whether the new digitalized development process has resulted in increased brand value. A case study would enable internal insights about the effects of digital product development on a company.

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Metropolia
University of Applied Sciences

Qualitative Survey Questions

April 2020

The interviewee is Stephania Schirru, the founder and CEO of Dynamically Branded LLC, a boutique marketing company based in Dallas, Texas. She is also a PR and marketing consultant.

The goal of the interview is to get deeper insights into consumer perceived value and whether product digital development could be a beneficial tool. This will help answer the research question "Does the digitalisation of the fashion product development process lead to increased brand value?"

First, the researcher introduces herself and the research problem. The researcher then asks the interviewee to introduce herself and describe her profession.

The interview moves onto the questions.

Section 1: Fashion consumers' values

1. As you're familiar with fashion consumers, have you noticed that consumers value having the latest trends fast?

2. Do you believe fashion consumers care about the environmental aspect of fashion or does the importance of speed overcome that?

Section 3: Brand value

3. What have you noticed are some factors that increase the value of a brand?

Section 2: The importance of time-to-market

4. Do you have concerns about what happens to brands if they have slower time-to-market?

5. Have the brands you worked with struggled to have faster time-to-market? Why did they struggle?

Section 4: The impacts of digitalizing the product development process

6. As more brands are introducing digitalization into their value chains, have you also come across product digital development and how were you introduced to it?

7. Have the brands you have worked with used product digital development? How has their experience been with it?

8. If you do know a brand using product digital development, how is their performance in regards to fulfilling consumer values?

9. As you have experience with several fashion brands, do you believe more brands should implement product digital development?

10. Do you believe that digitalization of the product development process leads to increased brand value for a company?