



**MUJAD** Marmara Üniversitesi Sanat ve Tasarım Dergisi  
e-ISSN 2980-2822 Volume:16 / No:2 / December 2025

Submission Date: 06.10.2025 / Acceptance Date: 18.12.2025

## Research Article

# Application of Design Format Analysis for Observing Styling Trend Flows: A Conceptual Model

**Ilgim EROĞLU**

ORCID NO: 0000-0003-1514-6742

Assoc. Prof. Dr., ilgim.eroglu@msgsu.edu.tr, MSGSU, Faculty of Architecture,  
Department of Industrial Design

**Ufuk ULUSAN**

ORCID NO: 0000-0001-8181-3334

Assist. Prof., ufuk.ulusan@msgsu.edu.tr, MSGSU, Faculty of Architecture,  
Department of Industrial Design

### Abstract

This study aims to propose a model for modifying Design Format Analysis (DFA) in an effort to analyze the flow of styling trends in products. Originally, DFA is conducted to derive visual codes of a brand to define key elements of product identity. This method helps to describe and define the strengths of these codes, which makes it eligible to demonstrate transfer of semantic elements between products and brands. However, there is a lack of studies about trend analysis in the literature, especially when it comes to focusing on the flow of trends and the position of companies among the flow. To fill the gap, styling, which is a key element of product and brand identity, is taken into account by means of success in the marketplace for a company to differentiate itself from others. Two hypothetical models are proposed to analyze trend flows and companies' position in the market during a trend life cycle: One concentrating on demonstrating styling characteristics of a period while the other one focusing on origin and spread of a certain styling trend. Through these tables it is suggested that a holistic understanding about styling trends within a certain period of time can be achieved.

**Keywords:** DFA, style trend, industrial design



**MUJAD** Marmara Üniversitesi Sanat ve Tasarım Dergisi  
e-ISSN 2980-2822 Cilt:16 / Sayı:2 / Aralık 2025

Gönderim Tarihi: 06.10.2025 / Kabul Tarihi: 18.12.2025

## Araştırma Makalesi

# Tasarım Biçim Analizi'nin Stil Trend Akışını İzleme Amaçlı Uygulanması: Kavramsal Bir Model

**Ilgım EROĞLU**

ORCID NO: 0000-0003-1514-6742

Doç. Dr., [ilgim.eroglu@msgsu.edu.tr](mailto:ilgim.eroglu@msgsu.edu.tr), MSGSÜ, Mimarlık Fakültesi, Endüstriyel Tasarım Bölümü

**Ufuk ULUSAN**

ORCID NO: 0000-0001-8181-3334

Dr. Öğr. Üyesi, [ufuk.ulusan@msgsu.edu.tr](mailto:ufuk.ulusan@msgsu.edu.tr), MSGSÜ, Mimarlık Fakültesi, Endüstriyel Tasarım Bölümü

### Öz

Bu çalışma, ürünlerdeki stil trend akışını çözümlenmek amacıyla Tasarım Biçim Analizi (TBA) üzerinden bir model önermeyi amaçlamaktadır. TBA temelde ürün kimliğinin asli unsurlarını tanımlamak üzere bir markanın görsel kodlarını üretmek için yürütülen bir yöntemdir. Bu yöntem, bu görsel kodların güçlü yönlerini tanımlamaya yardımcı olur ve bu da ürünler ve markalar arasındaki semantik unsur aktarımını açık eder. Ancak, trend analizi konusunda trend akışına ve şirketlerin bu akıştaki konumuna odaklanıldığında, literatürde bir eksiklik göze çarpmaktadır. Bu sebeple bu çalışmada, pazar başarısı amacıyla bir şirketin kendisini diğerlerinden farklılaştırması olarak tarif edilebilecek bir alan üzerinden, ürün ve marka kimliğinin temel bir unsuru olan stil odağı alınmaktadır. Bir trend yaşam döngüsü boyunca trend akışlarını ve şirketlerin pazardaki konumunu analiz etmek için iki varsayımsal model önerilmiştir: Bir model herhangi bir dönemin stil özelliklerini göstermeye odaklanırken, diğeri belirli bir stil trendinin kaynağına ve yayılmasına ışık tutmaktadır. Bu tablolar aracılığıyla belirli zaman dilimlerindeki stil trendleri hakkında bütünsel anlayışlara ulaşılabileceği öngörülmektedir.

**Anahtar Kelimeler:** TBA, stil trendi, endüstriyel tasarım

## Genişletilmiş Özet

**Giriş:** Bu makale, markalar arası tasarım ve biçim unsurlarının transferini TBA temelinde gösteren modellere odaklanmıştır. Trendlerin yayılımının incelenmesi için moda ve ürün tasarımı literatüründe çeşitli modeller öneren çalışmalar mevcuttur. Bu çalışmalar esas olarak markalar arasında trendlerin yayılmasına yol açan mekanizmaları tartışmaktadır. Trend yayılımlarını göstermek için kullanılan modellerin çoğu nicel yöntemler kullanmaktadır ve bu sebeple trend unsurlarının markalar arasındaki akışını görselleştirebilmekten uzak kalmışlardır. Trend akışına ve şirketlerin bu akıştaki konumuna bakıldığında, bu çalışma kendisini literatürdeki bu eksik üzerinden temellendirmekte ve pazar başarısı amacıyla bir şirketin kendisini diğerlerinden farklılaştırması olarak tarif edilebilecek bir alan üzerinden, ürün ve marka kimliğinin temel bir unsuru olan stili odağına almaktadır.

**Çalışmanın Amacı:** Bu çalışma, belirli bir zaman dilimindeki stil trendlerinin dağılımını ve markaların konumunu değerlendirmek için bir yöntem sunmayı amaçlamaktadır. Bu doğrultuda ve ürünlerdeki stil trend akışını analiz etmek amacıyla Tasarım Biçim Analizi (TBA) üzerinden iki model önermek hedeflenmektedir.

**Yöntem:** TBA markaların ürün kimliği unsurlarının tespit edilmesi ve incelenmesi için geliştirilmiş bir yöntemdir. Bu çalışma bu yöntemi, trend öğelerinin markalar arasındaki geçişini göstermek üzere yeniden kurgulamaktadır. Literatür incelendiğinde, TBA'nın bir markanın kimliğini analiz etmek için veya bir yorumunun bir ürün konseptinin nesiller boyunca değişikliklerini izlemek için kullanılabileceği görülebilir. Bazı görece yeni çalışmalarda bu yöntem görsel düzeyde marka tanınırlığının analiziyle ilişkilendirilmiş; bazı çalışmalarda bu yöntemin bir markanın en iyi bilinen yönlerini belirlemeye yardımcı olduğu söz konusu edilmiş; bazı çalışmalarda ise bir ürün ailesine uygulandığında daha iyi performans gösterdiği ve bu nedenle tek bir ürün konsepti pazarındaki trend araştırması için uygun olduğu dile getirilmiştir. Bu çalışma TBA'yı bir yöntem olarak temeline alarak ve onun üzerinden, iki modelden oluşan gelişmiş bir yöntem önermektedir.

**Bulgular:** Trend öğelerinin oluşumu ve dağılımı ile ilgili teoriler moda literatüründe çoğunlukla "yukarıdan aşağıya" ve "aşağıdan yukarıya" olarak sınıflandırılan modeller üzerinden tartışılmaktadır. Yukarıdan aşağıya şeklinde tarif edilen model, temelde Georg Simmel'in sınıf ve statülerle ilgili görüşlerine dayanmaktadır. Bu teoriye göre, toplumdaki üst sınıflar statülerini moda aracılığıyla oluştururlar ve alt sınıflar bu moda trendlerini kopyaladığında, kendilerini bir kez daha diğerlerinden farklılaştırmak için yeni trendler uygularlar. Aşağıdan yukarıya olarak adlandırılan modeller ise, alt sınıflarda ortaya çıkan trendlerin çağdaş kültür aracılığıyla üst düzey markaları etkileyebileceği düşüncesi üzerinde temellenmektedir. Trendlerle ilgili bu teorilerin benzerleri, ürün tasarımı alanında stil öğelerinin yayılmasını açıklamak için kullanılmıştır. Kullanıcı grupları arasındaki trend akışını açıklama anlamında bu çalışmalardan bazıları, literatürde yer alan ve bu tür yeniliklerin yayılma tarzını inceleyen modele atıfta bulunmaktadır. Bu model, teknolojinin kullanıcılar arasında nasıl yayıldığını tartışmak için kullanıcıları yenilikçiler, erken benimseyenler, erken çoğunluk, geç çoğunluk ve geride kalanlar olarak gruplara ayırır.

Çalışma kapsamında TBA yönteminin yorumlanması ile markalar arasında stil unsurlarının yayılmasının gözlenmesi ve bununla birlikte pazardaki öncü ve takipçi markaların tespiti için iki farklı model önerilmiştir. İlk model, belirli bir zaman dilimindeki ürün trendlerinin bütünsel bir şekilde gösterilmesine odaklanır. Belirli bir zaman diliminde tespit edilebilen baskın stil faktörleri, alışlagelmiş TBA'ya benzer şekilde, tablonun soldan ilk sütununda

listelenmiştir. Diğer sütunlarda ise, sütunun en üst satırında belirtilen ürün için her bir faktörün derecelendirmesi verilmiştir. Ürünler, her bir trendin öncülerini göstermek amacıyla kronolojik olarak düzenlenmiştir. İkinci model, tek bir trend unsuruna odaklanmayı amaçlamaktadır; bu analiz o trendin sektör üzerindeki etkisini daha detaylı analiz etmeye ve neden benimsenip benimsenmediğine dair bulguların elde edilmesine yardımcı olabilir. Bu modelde, tüm grafikte aynı stil trendi temsil edilmektedir. En üst satıra, trendin geçerli olduğu yıllar yazılır. Soldan ilk sütun, trendi ürün modelleriyle uygulayan markaları listelemek için kullanılabilir. Bu tabloda, markaların davranışlarını ve ne kadar tutarlı olduklarını kolay anlaşılır bir biçimde ve markaların tutumunu bütüncül bir şekilde gösterebilmek için ürünler markalarının altında gruplandırılmıştır.

**Sonuç:** Önerilen modellerden biri belirli bir dönemin stil özelliklerini göstermeye odaklanırken, diğeri belirli bir stil trendinin kökenine ve yayılımı üzerine yoğunlaşmaktadır. Bu tablolar aracılığıyla, belirli bir zaman dilimindeki stil trendleri hakkında bütünsel bir anlayış elde edilebilir. Trend akışının, trendleri sektöre tanıtan markalar aracılığıyla yukarıdan aşağıya mı yoksa aşağıdan yukarıya mı bir istikamet izlediği anlaşılabilir. Sektördeki şirketlerin belirli grupları hedeflediği konusu zaten halihazırda mevcut bir bilgi olduğundan, belirli bir trendin köken markası trendin yukarıdan aşağıya mı yoksa aşağıdan yukarıya mı bir istikamette olduğunu belirleyecektir. Ayrıca, üst ve alt ürün segmentleri arasındaki farklılaşmanın stil unsurlarına mı dayandığı, yoksa başka etkenlerin de bu ayrımda rol oynayıp oynamadığı incelenebilir. Sonraki çalışmalar kapsamında, bir sektörün gerçek analizi, markalar arasındaki stil unsuru akışları hakkında daha fazla bilgi sağlayabilir. Örneğin, sektörde sektör lideri olarak kabul edilebilecek birden fazla şirket olabildiği durumda farklı stil unsurları eş zamanlı olarak tanıtılabilir. Gene bir başka senaryoda bazı sektörler çok güçlü trendler tarafından domine edilirken, diğerlerinde teknik yönler daha önemli bir rol oynayabilir. Sektörler arasındaki bu farkı analiz etmek ve farklı takipçi tepkilerini anlamak faydalı olabilir; çünkü bazı durumlarda şirketler kendi marka kimliklerine daha uzun süre sadık kalmayı tercih edebilirken, diğerlerinde güncel kabul edilebilmek için kendilerini stil trendlerini takip etmek zorunda hissedebilirler.

**Anahtar Kelimeler:** TBA, stil trendi, endüstriyel tasarım

## Introduction

This study aims to propose models based on Design Format Analysis (DFA) that aim to demonstrate transfer of styling elements in products between brands. Diffusion of trends is discussed through various models both in product design and fashion literature (Dell’Era & Verganti, 2010; Levchuk, 2018; Chang & Van, 2003; Choi et al., 2024). Although mostly considered as different subjects in the literature, it is claimed that the trend flows that are observed in fashion can also be seen in the product design environment (Fung et al., 2024). These studies mainly discuss the mechanisms that lead to diffusions of trends between brands. However, most of the models that are used to demonstrate trend diffusions fail to provide a holistic understanding of styling element flow between brands, as many of them apply quantitative methods (Tucker & Kim, 2011a; Chio et al., 2024; Chang & Van, 2003).

DFA is an analysis tool that is frequently used to identify key elements of a brand’s product identity (Röjgren & Widell, 2022; Gustafsson & Jansson, 2023; Gonzalez et al., 2019; Karjalainen, 2007; Warell, 2001). It shows key identity elements and their strengths in each product in a tablet to define typical products and typical visual identity elements. This method demonstrates the distinctive styling elements in products in a qualitative way and their distribution among the product line to define the most frequent identity element and a typical product for the brand (Karjalainen, 2007; Warell, 2001). In this study DFA method will be modified in several ways to provide tools that may be used for tracking styling trend flow between brands. This way the trendsetters and followers of a certain industry can be defined regarding a single trend. Trend flows may follow different trajectories such as bottom up and top the bottom in the industry. Whichever trajectory followed, trend items usually originate from several companies to be further spread to others. Repetitive analysis may demonstrate if there are certain trendsetter firms that hold their position, or trends in general can be forced by other sources.

### Styling Trends and Their Flow Between Brands

In this study, the term trend refers to dominant styling elements that can be seen in a majority of products in the market. It can be seen that there is a lack of studies about trend flows and their analysis in the literature. So a broader review is done including the fashion industry. Some of the studies refer to the model of diffusion of innovations (Rogers et al., 2014) when they explain the flow of trends between user groups (Dell’Era & Verganti, 2010; Crane, 1999; Atik & Firat; 2013). The model divides users into groups such as innovators, early adopters, early majority, late majority and laggards to discuss how technology is spread among users (Rogers, 2003). Innovators are reactive for pretty much any novel product, while early adopters act more selective about the technology they respond to. Early and late majorities make more calculated decisions with different concerns, while laggards preferably do not respond to the novelty (Rogers, 2003). Moulson and Sproles (2000) argue that consumer leaders are earliest buyers that somewhat resemble the innovators group, while opinion leaders that may be seen in early

adopters are the ones who influence others to buy the products. Some claim there are many theories in the literature that discuss diffusion of trends but almost all of them suggest that consumers from every level adopt trends in a short period of time (Moulson & Sproles, 2000). Although these models are useful to understand the differences between user expectations and their reaction to innovations, it doesn't directly explain how visual elements diffuse among brands. A rather indirect explanation can be derived from this model as certain brands may target certain user groups; therefore, it may be assumed that these brands will apply trends when their users are ready to adopt them.

It is discussed whether trends are pushed by industry or they are simply built up from what people adopt (Fung et al., 2004). The reflection of this dilemma can be seen in the fashion literature, in which top-down and bottom-up models are mostly discussed (Crane, 1999; Atik & Firat, 2013; Levchuk, 2018; Choi et al., 2024). Top-down model is based on Simmel's theory; upper classes identify their status through fashion and when lower classes copy fashion trends, they apply new trends to once again differentiate themselves from others (Atik & Firat, 2013). Although highly criticized, this model can still be in effect through high end fashion shows and trendsetters on social media, where the trends determined by top brands for the upper class are distributed to the mass market (Choi et al., 2024). Bottom-up models argue that trends emerging from lower classes can influence high end brands through contemporary culture (Crane, 1999).

These models resemble technology diffusion models as they divide the market into consumer groups. The main difference is that the top-down and bottom-up models are mostly social class oriented, whereas in technology diffusion models, users' willingness to adopt a technology has a significant effect. This willingness may be affected by economic abilities, but also the specific need for the product and its function may be a driving force. As both models are user oriented, a projection of trend flows between brands can be done through their target markets and users.

Regarding the trend diffusion, the methods used for tracking the styling trends in the market are mostly quantitative. While evaluating trends in cell phone industry, Tucker and Kim (2011b) apply trend mining in an effort to demonstrate frequency of certain attributes within a time period. This method provides a general idea about the trends whether they increase or decrease in certain attributes but lacks an analysis about a distinction between brands and defining setters of the trends. Dell'Era and Verganti (2010) studied frequency of materials and their combinations through the years. In another study Chang and Van (2003) investigated styling trends in printers through semantic differential techniques. When studies on the fashion industry are considered, quantitative methods can be applied while measuring frequency of a trend element (Choi et al., 2024). He and Ji (2016) built a methodology inspired by biology to group products according to their attributes to follow model color finishing genes. An et al. (2021) applied visual coding assisted by deep learning methods with statistical verification to analyze trends. While a majority of the studies concentrate on analyzing a single trend, some

studies in the literature claim that trends have evolved from being a global singular tendency to a coexistence of several trends in a multicultural world (Fung et al., 2004).

Quantitative methods can be useful to understand the frequency of a design element at a certain period in time. They may also be helpful to provide a timeline to demonstrate their life cycle during a timeline. However, to identify trend setters and followers, a more holistic presentation of trend life cycles and a qualitative description of trend flow between brands may be needed. Therefore, methods developed to investigate brand identities may be helpful to develop such tools.

### **Brand Identity, Brand Positioning and Styling**

Styling is a key element of brand identity, as product identity is one of the main communicators of the brand identity through styling. The differentiation of a brand from others through styling leads to positioning of the brand in the market. Exterior design of a product is generally called product styling, and it is considered as one of the most vital elements of product appeal. It is also referred to as a sustainable competitive advantage for companies (Fung et al., 2004). Karjalainen (2004) stresses the importance of styling to build a coherent product identity. Bang and Palshoj (2000) describe a connection between styling, products identity and brand identity by pointing out that product identity factors such as authenticity, self-descriptiveness, and trustworthiness later became identity elements of the Bang & Olufsen brand. Stompff (2003) provides a more direct link between brand and styling through claiming that styling outcomes such as strongness and plainness can become elements of brand identity.

Styling is claimed to be directly related to success in the marketplace. It is crucial for companies to differentiate themselves from others. Rahe et al. (2012) refer product form as a key element to gain visual recognition in the market. Crilly et al. (2004) claim that visual elements such as geometry, dimensions, materials, textures and colors can be used to communicate product identity to users as superior elements that target auditory, tactile or tasting senses. Karjalainen (2004) claims that identity is a broad concept that helps a phenomenon to be identified and defined. The references that form product identity can be implicit or explicit, genuine or stringed and complete or partial (Karjalainen & Snelders, 2010; Karjalainen, 2003), pointing out that identity elements can also be derived from interpretation of visual cues. Styling elements can be both visual and semantic (Cadavid & Maya, 2013)

Strategic managers also mention that styling should address certain values of consumers, including their perception of trends. People's perception of trends is affected by their social environment. Perception of trends is also associated with product symbolism, where certain styling elements can be linked with time periods. Styling that appeals to trends is used to provide a feeling of up-to-datedness to users (Person et al., 2007). There seems to be a conflict between keeping an integrated brand identity while differentiating it from others and applying trends. This conflict can be resolved by keeping brand identity as a

differentiating factor while interpreting trends. As the literature suggests that companies use trends to differentiate themselves from others and tend to introduce new ones when laggards catch them up, styling can be considered as an element of brand positioning as it is used to separate one brand from others.

### **Methodology**

The method within this study mainly involves DFA and also modifying it in order to provide tools that may be used for tracking styling trend flow between brands. DFA is a method that is mostly used to perform a brand identity analysis for a brand to define characteristic visual features of a brand and address the typical product of the brand (Warell, 2001). When the literature is reviewed, it can be seen that DFA is used to analyze a brand's identity, or a derivation of it can be used to follow changes through generations of a product concept (Warell, 2001; Karjalainen, 2007). In some recent studies, DFA is associated with the analysis of brand recognition on a visual level (Abdul-Rahman & Andersson, 2023). The method is claimed to help identify the most well-known aspects of a brand (Gustafsson & Jansson, 2023; Gonzalez et al., 2018). Røjgren and Widell (2022) suggest that DFA performs better when applied to a product family, which makes it appropriate for trend research within a single product concept market. DFA is known to be used to identify forms, colors, materials (Castillo Ellström & Andersson, 2019), however it may also be used to apply more descriptive attributes as can be seen in the study conducted by Young and Warell (2008) such as strong surface transitions, sweeping character lines, continuous unifying form elements. Su et al. (2018) utilize the method to identify broader brand codes such as humanism and synthetic values.

The structure of DFA application for brand identity definition is a table with products listed on the top row while brand features are listed on the first column from the left (Warell, 2001). The occurrence and strength of the features are shown graphically. A filled circle shows a strong existence and is marked with a quantitative score of 2 points. A weaker existence is demonstrated with a blank circle and scored 1 point. If there is no hint of the suggested feature at the product, the square is left blank with a score of 0 (Karjalainen, 2007). A total score for each feature is represented at the last column from the left to identify the most characteristic feature, while the total scores for the products are shown at the bottom row to find out the most representative product of the brand (Warell, 2001). This graphic illustration simply shows how frequent and strong a visual cue is with a simple demonstration. An example for the graphic illustration is shown below.

Although not many applications and derivations of the model can be found in the literature, the model is suitable for modifying for several purposes. A modification of the model was conducted by Eroğlu (2019) to demonstrate brand identity consistency. In order to do so, the total scores are divided into 3 groups to define the consistent and non-consistent features. As an example, in an analysis that consists of 15 products, a feature with a score between 0-10 is non-consistent, a

feature with a score between 11-20 is weakly consistent and a feature with a score between 21-30 is consistent. The number of weakly consistent and consistent features and their ratio to the total number of visual features may provide an idea about how integrated the product identity is (Eroğlu, 2019). An example of this modification is shown below.

DFA is criticized as the outcome quality depends on the expertise of the evaluators (Gonzalez et al., 2019); however, as the studies conducted with design students seem to provide valid results (Karjalainen, 2007; Ceng et al., 2014; Person et al., 2008; Castro & Vincente, 2018; Rahe et al., 2012), it can be assumed that studies conducted with design professionals can provide valid results.

### **Findings and Discussion**

As mentioned before, DFA is mostly used for identification of brand features and in some cases it acts as a guide to extend brand identity to other product groups (Cheng et al., 2014; Karjalainen, 2007). However, the method is also suitable to be applied for other purposes. Young and Warell (2008) utilized the model to define industrial trends and to define elements associated with luxury in the car industry. Although this analysis aims to define trends, it doesn't concentrate on the flow of the trends between brands; it rather applies the method to identify current understandings through various brands and models. Therefore, the modification of the model in an effort to analyze trend flows and companies' position in the market during a trend life cycle can be considered a new approach in the literature.

The qualitative nature of DFA makes it a suitable tool for demonstrating visual elements in a descriptive way. Therefore, it can be possible to visualize what semantic elements appear strongly in a product. Building a chronological visual board to show every product that is produced in a certain period of time may help to identify trend setters and followers. This analysis can be helpful to check if companies keep their status or change their roles in the industry. Also, performances of the brands can be studied regarding the top-down model to see if top companies steadily fulfill their purpose to differentiate their users from the rest. In this study, two models are proposed; one model will serve to demonstrate the flow of trends between brands and their products, while the other is going to focus on a single trend and its life cycle through years.

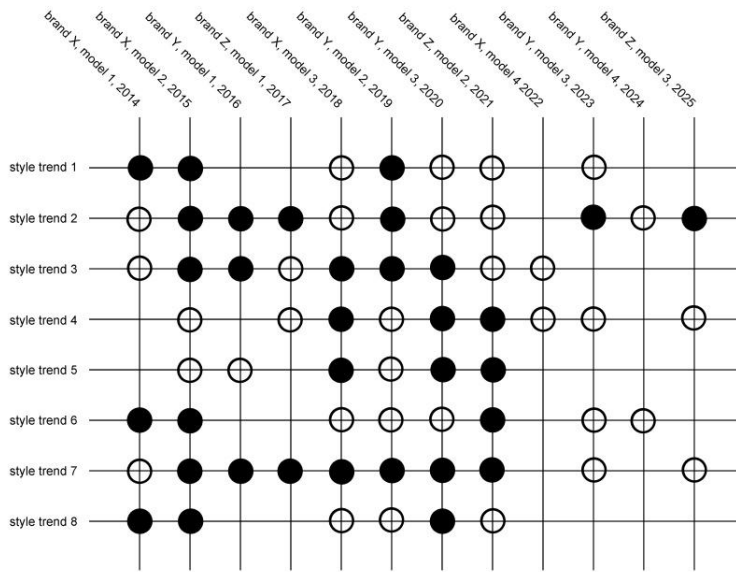
### **Demonstration of Product Trends and Their Diffusion Between Brands**

This model focuses on demonstration of product trends in a holistic way during a time period. The dominant styling factors that can be detected in a time period are listed on the first column of the table from the left, similar to regular DFA. On the other columns, rating for every single factor is given for the product that is stated at the top row of the column. The products are organized in a chronological way in an effort to show the initiators of each trend. When defining the starting point of the time period, it should be noted that not every time the brand known as the trendsetter of the industry may initiate the trend.

Before conducting the analysis, a definition should be made for a group of products that are regarded to show similar styling within a relatively small period of time. The assumed starting point of the table would be the product that has the earliest release. The cyclical nature of the trends can be considered as a problem; trend setters may prefer to adopt styles of several years ago while the laggards have just adopted them. As the top-down model suggests that top companies use semantic innovations to separate themselves from others, it wouldn't be expected for them to adopt style cues that are correlated with laggards. An example for this analysis can be seen in Figure 1.

**Figure 1**

*An Example on Demonstrating Styling Characteristics of a Period*



*Note.* Created by the authors (2025).

In this example, products from 3 different companies are shown in a chronological way. When the matrix is examined, it can be understood Brand X introduces the dominant styling trends to the industry within the decade. Through their second product, a prototypical example for the trends is set and the other two companies adopt styling elements to their products. As the company stops applying styling elements, the other two companies also discard the trends. In this matrix it can be concluded that Brand X is the setter of the trend while the others are followers. The trend flow can be top-down or bottom-up regarding the position of Brand X in the market.

After conducting the analysis, it can be seen how simultaneously trend factors are spread to the market also, it may be seen whether the industrial trend originates from a single brand, more specifically as a single product, or it is made up from a merger of customer reactions, where brands act accordingly to customer preferences. The matrix can show the existence of overall trendsetter brands, if there are any.

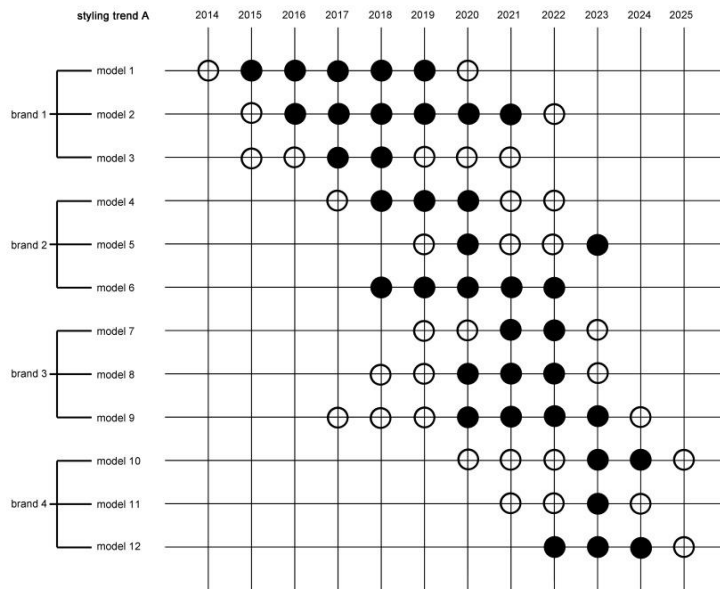
## Analysis of the Diffusion of a Single Trend Through Years

This model aims to concentrate on a single trend element, as it may be helpful to further analyze its effect on the industry and to provoke discussions about why it is adopted or not. In this model, the whole chart represents the same styling trend. At the top row, the years that the trend had been in effect can be written. The first column from the left can be used to list brands that apply the trend with their product models. In this table, products are grouped in brands, to conduct an easy to understand and coherent demonstration of brands' behavior and how consistent they are.

While providing a life cycle for a single trend, this model also gives hints about brands if they are consistent within their product categories. Also, it can be evaluated if certain product lines with differentiated codes that aim different customers act as laggards within the product category. This may support the top-down model, as the brands may prefer a distinction within their users through a trend gap, where the high-end users are rewarded with more up-to-date looks. A more synchronized styling timing between different product segmentations may hint that the brand and possibly the industry tend to apply factors other than styling to distinguish aimed consumer categories. This may also hint that a consistent look with a strong brand identity is preferred. An example of this analysis can be seen in Figure 2.

**Figure 2**

*An Example on Origin and Spread of a Certain Styling Trend*



*Note.* Created by the authors (2025).

In this example, the flow of a certain Styling Trend A is analyzed. In the matrix there are 4 brands with 3 different product lines addressing different consumer groups; Model 1 refers to the upper-class products while Model 3 targets lower segments. Brand 1 introduces the trend weakly with their first model while

enforcing its existence with upcoming versions of Model 1, along with other two product lines. The Model 3 weakly adopts the trends as the company may aim to separate it from upper segments. The other 3 companies follow the trend with their product lines later, discarding it several years after Brand 1 stops implementing it. In this table the identity consistency between product lines can be analyzed along with the supposed difference of upper segment product lines from the others.

Companies with a scattered preference may hint either a failure for application of an integrated brand identity or a deliberate choice of styling elements that address different customer groups. As an example, the Brand 2 in Figure 2 applies a certain trend strongly in their Model 6, while they adopt it mildly in their other two models. This may mean they aim Model 6 for a target group that is respondent to trend, or their Model 6 is a reactive design for a certain competitor. To get a more holistic picture about product identity strategies, another DFA study can be conducted to see whether there are other styling cues that connect brands' products together. The strengths or weaknesses of consistent identity factors may show how successfully a brand differentiates its product groups without diminishing the product and brand identity.

### **Conclusion**

This study aims to provide a method for evaluating styling trends within a certain time period. Two models are suggested; one of them concentrates on demonstrating styling characteristics of a period while the other focuses on origin and spread of a certain styling trend. Through these tables, a holistic understanding about styling trends within a certain period of time can be achieved. It can be understood if the trend flows are top-down or bottom-up through the brands that introduce trends to the industry. Since companies in the industry are known to aim certain groups, the origin brand for a certain trend will address if the trend is top-down or bottom-up. It can also be understood if the differentiation of upper and lower product segments is expressed through styling elements or there are other factors that are considered significant for segmental differentiation. For example, if the top segmented product in a brand doesn't include trend elements, this may hint the company is using other factors such as technical specifications, pricing etc. to differentiate its top segmented products.

Due to time and length constraints of this study, two hypothetical examples are demonstrated to discuss the suggested model. An actual analysis of an industry may provide even more information about styling element flows between brands. For example, there may be more than one company in the industry that can be considered as industry leader, therefore different styling elements can be introduced simultaneously. In such a scenario followers may be affected by several leaders, causing a semantic noise within the brand. This may lead to less integrated product identities for follower companies and a less identifiable overall trend for the industry.

In further studies, actual analysis of industries can be conducted to obtain a better understanding about the ways trends flow between brands. Some industries may be dominated by styling trends, while in others technical aspects may have a more important role. It may be beneficial to analyze the difference between industries and to understand different follower reactions, as in some cases companies may prefer to stay loyal to their own brand identities for longer periods of time, while in others they may feel obliged to follow the styling trends in order to be considered up-to-date.

### **Statement of Research and Publication Ethics**

The research does not require an Ethics Committee decision.

### **Statement of Conflict of Interest**

There is no conflict of interest with any institution, organization, or individual related to the article.

### **References**

- Abdul-Rahman, W., & Andersson, V. (2023). *Conceptual design and development of an off-road cargo trailer for bicycles*. Jönköping University. <https://www.diva-portal.org/smash/get/diva2:1766171/FULLTEXT01.pdf>.
- An, H., Kim, S., & Choi, Y. (2021). Sportive fashion trend reports: A hybrid style analysis based on deep learning techniques. *Sustainability*, 13(17), 9530. <https://doi.org/10.3390/su13179530>.
- Atik, D., & Firat, A. F. (2013). Fashion creation and diffusion: The institution of marketing. *Journal of Marketing Management*, 29(7-8), 836-860. <https://doi.org/10.1080/0267257X.2012.729073>.
- Bang, J., & Palshoj, J. (2000). *Vision og legende*. Copenhagen: Danish Design Centre.
- Cadavid, A., & Maya, J. (2013). Inspirational categories for product design: A study within the conjoint trends analysis method. In *International Conference on Engineering and Product Design Education*. <https://www.designsociety.org/download-publication/34743/inspirational-categories-for-product-design-a-study-within-the-conjoint-trends-analysis-method>.
- Castillo Ellström, O., & Andersson, T. (2019). *A guideline for conducting form analysis of branded products: The development of a design guideline framework for product-producing companies in a brand management context*. Linköping University. <https://www.diva-portal.org/smash/get/diva2:1333087/FULLTEXT01.pdf>
- Castro, A., & Vicente, J. (2018). Educational strategies for developing form language in product design. In *DS 93: Proceedings of the 20th International Conference on Engineering and Product Design Education (E&PDE 2018)*, Dyson School of Engineering, Imperial College, London. 6th-7th September 2018 (pp. 74-79). <https://www.designsociety.org/publication/40847/educational-strategies-for-developing-form-language-in-product-design>.
- Chang, W. C. & Van, Y.T. (2003). Researching design trends for the redesign of product form. *Design Studies*, 24(2), 173-180. [https://doi.org/10.1016/S0142-694X\(02\)00033-9](https://doi.org/10.1016/S0142-694X(02)00033-9).
- Cheng, P., Mugge, R., & Schoormans, J. P. (2014). A new strategy to reduce design fixation: Presenting partial photographs to designers. *Design Studies*, 35(4), 374-391. <https://doi.org/10.1016/j.destud.2014.02.004>.

- Choi, W., Lee, Y., & Jang, S. (2024). Diffusion of fashion trend information: A study on fashion image mining from various sources. *Fashion and Textiles*, 11(1), 30. <https://doi.org/10.1186/s40691-024-00394-8>.
- Crane, D. (1999). Diffusion models and fashion: A reassessment. *The Annals of the American Academy of Political and Social Science*, 566(1), 13-24. <https://www.jstor.org/stable/1048839>.
- Crilly, N.; Moultrie, J.; Clarkson, P.J. (2004). Seeing things: Consumer response and the visual domain in product design. *Design Studies*, 25, 547-577. <https://doi.org/10.1016/j.destud.2004.03.001>.
- Dell'Era, C., & Verganti, R. (2010). Diffusion of product signs in industrial networks: The advantage of the trend-setter. *European Journal of Innovation Management*, 13(1), 81-99. <https://doi.org/10.1108/14601061011013249>.
- Eroğlu, I. (2019). Effects of innovation types on product identities: Does radical innovation lead to a more integrated product identity?. *International Journal of Innovation*, 7(2), 252-272. <https://doi.org/10.5585/iji.v7i2.376>
- Fung, R. Y., Chong, S. P., & Wang, Y. (2004). A framework of product styling platform approach: Styling as intangible modules. *Concurrent Engineering*, 12(2), 89-103. <https://doi.org/10.1177/1063293X04044381>.
- Gonzalez, I., Val, E., Justel, D., Iriarte, I., & Lasa, G. (2018). Aesthetic interaction consistency: Exploring the foundation for static and dynamic aesthetics. In *DS 92: Proceedings of the DESIGN 2018 15th International Design Conference* (pp. 2209-2220). <https://doi.org/10.21278/idc.2018.0430>.
- Gonzalez, I., Val, E., Justel, D., Iriarte, I., & Lasa, G. (2019). A new method to evaluate good design for brand recognition in the digital world. *The Design Journal*, 22(sup1), 1957-1971. <https://doi.org/10.1080/14606925.2019.1594921>.
- Gustafsson, A., & Jansson, E. (2023). *Exploring future steering devices for automated cars: A user centered design project to develop an intuitive, user accepted, and safe steering device*. Chalmers University. <http://hdl.handle.net/20.500.12380/307187>.
- He, X., & Ji, X. (2016). Product species form design based on MCF gene. *Revista Técnica De La Facultad De Ingeniería Universidad Del Zulia*, 39(1), 299-305. <https://doi:10.21311/001.39.1.32>. <https://pdfs.semanticscholar.org/d1aa/e46b9fa5a07d4efebef021f7ff9ec72c952b.pdf>.
- Karjalainen, T. M. (2003). Strategic design language - transforming brand identity into design elements. *Proceedings of the 10th International Product Development Management Conference*, Brussels June 10-11. <https://www.semanticscholar.org/paper/STRATEGIC-DESIGN-LANGUAGE-%E2%80%93TRANSFORMING-BRAND-INTO-Karjalainen/fca95913046e73c2e754b5136798bac49846de73>.
- Karjalainen, T. M. (2004). *Semantic transformation in design: Communicating strategic identity through product design references*. Ilmari Design Publications. <https://www.semanticscholar.org/paper/STRATEGIC-DESIGN-LANGUAGE-%E2%80%93TRANSFORMING-BRAND-INTO-Karjalainen/fca95913046e73c2e754b5136798bac49846de73>.
- Karjalainen, T. M. (2007). It looks like a Toyota: Educational approaches to designing for visual brand recognition. *International Journal of Design*, 1(1). <https://www.ijdesign.org/index.php/ijdesign/article/view/43/14>.
- Karjalainen, T., & Snelders, D. (2010). Designing visual recognition for the brand. *Journal of Product Innovation Management*. 27, 6-22. <https://doi.org/10.1111/j.1540-5885.2009.00696.x>.

- Levchuk, T. (2018). *Trend diffusion mechanism in the modern fashion industry*. University of Twente.
- Moulson, T., & Sproles, G. (2000). Styling strategy. *Business Horizons*, 43(5), 45-45. [https://doi.org/10.1016/S0007-6813\(00\)80008-7](https://doi.org/10.1016/S0007-6813(00)80008-7).
- Person, O., Karjalainen, T. M., & Rahe, U. (2008). Teaching strategic product styling: An educational approach to the use of consumer data in designing brand recognition. In *DS 46: Proceedings of E&PDE 2008, the 10th International Conference on Engineering and Product Design Education*, Barcelona, Spain, 04.-05.09. 2008 (pp. 144-149). [https://www.designsociety.org/publication/28088/teaching\\_strategic\\_product\\_styling\\_an\\_educational\\_approach\\_to\\_the\\_use\\_of\\_consumer\\_data\\_in\\_designing\\_brand\\_recognition](https://www.designsociety.org/publication/28088/teaching_strategic_product_styling_an_educational_approach_to_the_use_of_consumer_data_in_designing_brand_recognition).
- Person, O., Snelders, D., Karjalainen, T. M., & Schoormans, J. (2007). Complementing intuition: Insights on styling as a strategic tool. *Journal of Marketing Management*, 23(9-10), 901-916. <https://doi.org/10.1362/026725707X250386>.
- Rahe, U., Babapour, M., & Rehammar, B. (2012). Creating novel product form based on formal aesthetics-A method for advanced form design education. In *DS 74: Proceedings of the 14th International Conference on Engineering & Product Design Education (E&PDE12) Design Education for Future Wellbeing*, Antwerp, Belgium, 06-07.9. 2012 (pp. 291-296). <https://lucris.lub.lu.se/ws/portalfiles/portal/6258593/8033320.pdf>.
- Rogers, E. M., (2003). *Diffusion of innovations*. Free Press.
- Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432-448). Routledge. <https://doi.org/10.4324/9780203710753-35>.
- Röjgren, S., & Widell, A. (2022). *Development of exoskeleton for loggers: User centred design of passive lower-back support for motor-manual tree felling, in collaboration with Husqvarna AB*. Chalmers University of Technology. <https://odr.chalmers.se/items/bc5e63ff-0c66-4ba1-ac0c-5d28a5535396>.
- Su, J. N., Lv, Y., Wang, P., & Bai, R. S. (2018). Research on form design of new generation upgrade products based on brand identity. In *MATEC Web of Conferences* (Vol. 176, p. 04008). EDP Sciences. <https://doi.org/10.1051/mateconf/201817604008>.
- Stomppf, G. (2003). The forgotten bond: Brand identity and product design. *Design Management Journal* (Former Series), 14(1), 26-32. <https://doi.org/10.1111/j.1948-7169.2003.tb00336.x>.
- Tucker, C., & Kim, H. (2011a). Predicting emerging product design trend by mining publicly available customer review data. In *DS 68-6: Proceedings of the 18th International Conference on Engineering Design (ICED 11), Impacting Society through Engineering Design, Vol. 6: Design Information and Knowledge*, Lyngby/Copenhagen, Denmark, 15.-19.08. 2011. [https://www.designsociety.org/publication/30612/predicting\\_emerging\\_product\\_design\\_trend\\_by\\_mining\\_publicly\\_available\\_customer\\_review\\_data](https://www.designsociety.org/publication/30612/predicting_emerging_product_design_trend_by_mining_publicly_available_customer_review_data).
- Tucker, C., & Kim, H. (2011b). Trend mining for predictive product design. *Journal of Mechanical Design*, Nov 2011, 133(11), 111008. DOI: 10.1115/1.4004987].
- Warell, A. (2001). *Design syntactics: A functional approach to visual product form theory, models, and methods*. Chalmers University of Technology.
- Young, K., & Warell, A. (2008). Exoticness, high-performance, and luxury: Design of a brand-specific supercar interior using the PPE framework. In *Proceedings of The Second European Conference on Affective Design and Kansei (Emotion) Engineering*, (pp. 495-514). <https://portal.research.lu.se/en/publications/exoticness-high-performance-and-luxury-design-of-a-brand-specific>