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ECONOMIC THEORIES OF FASHION

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Introduction

Fashion economics is a specialized field in the discipline which analyzes the fashion industry, firms’ and consumers’ behavior concerning fashion products and services. Economics itself is a study of social and behavioral sciences, which often involve in documenting generalizing, and understanding behavior in the economy. Economic agents are governments, industries, firms, household units, and individuals. The agents make economic decisions knowing resources are limited, such as land, natural resources, money, labor, capital, and technology. Economics examine and comprehend the interactions of these agents with limited resources, test hypotheses, and apply implications by changing regulations or navigating the economy to increase or maximize the wealth of these agents. The primary two fields in economics are macroeconomics, which studies the economy as a whole, and agents’ units are large such as trade between countries and governments and how money works in the economy. The other one is microeconomics, which studies an individual scale like a single market, firm, and consumer. There are subsets of specialized fields such as financial economics, international economics, labor economics, and industrial organization.

Fashion economics is a relatively new but growing field in economics, so new that even economists might ask what it is. Using economic analysis has been limited until recently by the widespread assumption in conventional economic theory that firms and consumers behave rationally in a narrow sense: a firm maximizes profits, and a consumer maximizes self-satisfaction of consumption or utility. Utility maximization represents maximizing self-satisfaction from the consumption of various goods and services. Food consumption is a good example: Eating an apple satisfies the person who eats it. In economics, this self-satisfaction from consumption is the traditional “utility,” and this maximization is considered a rational behavior. Fashion-related behavior may be irrational. Some consumers are willing to pay $50,000 for a Hermès Birkin bag on a waiting list, which, if evaluated from the traditional utility theory point of view, might be worth only $100.

The phenomenon of Hermès is an example of “conspicuous consumption.” The first ones to write about this idea were the economist and sociologist Thorstein Veblen\(^1\) and the sociologist and philosopher George Simmel.\(^2\) They described how fashion trends trickle down, in one direction, from a small group of wealthy people to a larger majority of the population.
Recent developments in economic theory, such as game theory, behavioral economics, and computational improvements in simulation tools provide economists more flexibility in the analysis of irrational (or seemingly irrational) behaviors in fashion. These variants of the traditional tools allow us to analyze economic situations where interactions among firms or consumers, or interactions of both parties are essential features that form the industry.

For other disciplines of fashion studies, understanding economic theories, methodology, and mechanisms help researchers make logical hypotheses and predictions. When human interactions occur, economic activities develop, and eventually fashion emerges in society. Fashion is a form of consumption within society and economic agents independently and inter-dependently make decisions in their actions.

For example, in the COVID-19 pandemic, society quickly fell short of personal protective equipment (PPE) at the most urgent level in hospitals. Free and sharable mask patterns and instructions became available, and many home crafters sewed and donated them in no time. As soon as the hospital supply chain started receiving proper PPE, the economy shifted into making masks for profit, as mask-wearing became a new social protocol. Soon enough, variations emerged in the market with unique features, designs, and accessories such as big ribbons and printed logos. From an economic perspective, these agents’ behaviors are predictable. Researchers from other disciplines will undertake research on pandemic masks from their specialized points of view: sociology, psychology, politics, fashion technology, history, material culture, and literature. By understanding the economics underlying environmental developments around the mask, rather than see “irrationality,” other fields of research can also establish logical hypotheses and explanations.

This type of analysis is accessible not only for economists – economic researchers often use data which are publicly available. The American Economic Association, a prominent economic organization, lists data sources for projects, including GDP, labor-related indicators, and the World Bank database. At the same time, narrowing down to focus on data for each company or product category for fashion products may be difficult for an outside researcher. Many fashion firms run privately and have no obligations to share private information with the public. Some level of financial information is available for public firms that are listed in the stock exchange. There is also a limitation on how far back the data go and how consistent they are.

The following sections propose a program for using economics to study fashion. The first is a discussion of how the fashion industry functions as an organization. It shows how each part of the industry is related to the others. The next focuses on consumer behavior that relates to fashion, then the entire industry, where supply and demand behaviors interact. A concluding section suggests topics for future areas of study.

**Fashion industry as an organization**

Historically, with limited resources, many fashion firms have started their business in a single stage, i.e., one firm operates a textile mill, and another firm runs a retail store. Today, the fashion industry is more complicated with a variety of coexisting firms, with some integrating their segments to have more control of a business or reduce the cost. Types of firms are diverse today, and researchers need to understand in which parts of the fashion industry a particular firm does business.

Figure 5.1 offers a visualization of the fashion industry and how agents take part as an organization. Stages 1 to 4 are a supply chain. The supply chain consists of Stages 1 (preparing materials or textiles); 2 (manufacturing); 3 (business-to-business distribution or wholesale); and 4 (business-to-consumer distribution or retail). The only difference between the apparel industry and the apparel-related industry is the primary materials are used in production.
The apparel industry uses textiles, while the apparel-related industry (handbags, shoes, cosmetics) uses other materials. The Auxiliary Stage handles an intangible stage—control of imagery, such as advertising, museum display, and Instagram, not a part of the supply chain and not necessarily occurring after Stages 1 through 4.

Some textbooks employ the terms apparel industry and fashion industry interchangeably, but that is incorrect. The significant difference in these terms is that the apparel industry delivers generic tangible products such as basic T-shirts and jeans; the fashion industry involves activities that add extra value to otherwise simple apparel garments. For example, at Stage 1, textile mills can produce material that will be of a trendy color, using a color-forecasting company, such as Pantone. Stage 2 adds twists in design or adds a brand logo to an otherwise simple T-shirt.

Understanding the organizational structure of this industry is essential to any researcher who aims to analyze the incentives, obstacles, or role of any firm which participates in the industry. For instance, a firm that may start as a fashion blogger firm (Auxiliary Stage), and has gained popularity, may expand into garment designing (Stage 2), while outsourcing the sewing of garments, and also sell as a wholesaler to department stores (Stage 3).

Economic topics that relate to the supply chain are vertical integration, inventory level analysis, and differentiation, as follows.

**Vertical integration**

A firm operates at multi-stages in the supply chain. In the fashion industry, the GAP is among the prominent firms that, in the 1970s, began the trend toward vertical integration in the United States. It operated as a jeans-specialty retail store (Stage 4) where it sold other brands.
Today, GAP carries only its own-label products while operating in Stages 2, 4, and Auxiliary, which is vertical integration.

The incentive to integrate vertically is to reduce costs and uncertainties from dependence on other firms in the supply chain. With vertical integration, the firm has control over production; it can be more effective in matching the supply of products with consumers’ demand, and the firm can control the timing of the delivery.

An early study concluded that vertical integration would not be successful, suggesting it would be too costly to manage given shortages of the technical skills necessary. That may have been true at the time. In subsequent years, however, advances in technology have made forecasting more reliable and lead times shorter, together making vertical integration much more attractive. Together with changes in international trade regulations, some fashion firms have decided to operate internationally with vertical integration in the model over time.

The free-trade and vertically integrated operation made changes in clothing prices in the United States; from 1982 until about 1994, the changes in clothing prices are the same as the price index. Then significant shifts happened in the early 2000s, where fast fashion, such as Zara, and H&M became the game-changers in the industry. The relative price of the clothing became cheaper for the first time while the price index was increasing. The core structure of fast-fashion is vertical integration, and clothing became available faster and cheaper for consumers. These changes produced a field much different from the one analyzed by Rosenblum. In an empirical comparison of financial outcomes between vertical integration or outsourcing some parts of a supply chain business models, Khudadad et al. found that vertical integration did not appear to cause significant differences in profit margins.

### Inventory level

Efficient inventory management is essential in order to maximize profits. It is a significantly important issue for retailers in Stage 4 who order from the wholesalers in Stage 3, months in advance. Retailers face uncertainty about consumer demand in the future. Forecast errors in consumer demand can result in either excess inventory or inventory shortage. Both of these can reduce the profits by reducing the price or loss of sales opportunity, respectively. Eppen and Iyer analyzed this issue using Bayesian estimation, an econometrics tool. This technique involves updating the forecast in response to errors as they are experienced. During a selling season, retailers thus update their demand information to decide how many garments to keep and how many to put away for outlet stores. Eppen and Iyer assert that holding on to inventory is too costly so that once retailers know that a specific volume will be unsold, they argue it would be optimal to send all the excess inventory to outlet stores.

### Product differentiation

The fashion industry thrives by differentiating products and brands. Product differentiation is a known characteristic in a monopolistic competitive structure in economics. Stages 1 to 4 and Auxiliary Stage in Figure 5.1 involve different ways that firms create perceived or real differences between their products and competing ones through the adding value activities (highlighted in the figure). In industrial organization, the major subfield of the economics of which fashion economics is a part, product variety analysis is a relatively new area. For example, Woo establishes economic models in which status-seeking consumer behaviors encourage more product variety in high-status products in the market. It provides an incentive for firms to create products differentiated from other competitors.
Product variety extends to quality variation, known as *vertical differentiation* of products. It is quality differentiation for the same style. For fashion products, we often observe it. De Fraja applies a game theory approach to set up a market where two firms offer multi-product lines to the market under a one-shot game to maximize profit. This research shows that quality becomes identical, which we observe for instance in the oligopoly market in sneakers. De Fraja expands the analysis into an increasing number of firms and finds that it offers more variety in the market, but the average quality may decrease with entry.  

**Consumer behavior, and their relations to the industry**

Consumer behavior regarding fashion products is fascinating because of significant departures from what conventional economics would predict; intentionally created shortage by brands; another is where some consumers prefer to wear clothing as uniforms. Additionally, a group of so-called social interaction theories involves more radical departures from traditional economic thinking, as detailed below.

**Created shortages by brands**

This strategy involves “limited edition” restrictions on quantity sold while maintaining prices below those that would clear the market. This widely contrived shortage and a release date of the product generates interest and enthusiasm for the product, which is in turn expected to lead to growing demand and revenue today and the future. Fast-fashion firms and designer collaborations, Supreme brand sales, and special-edition sneakers from Nike and Adidas are some examples. Shortly after being sold out at stores, other shops such as eBay sell them at a much higher price. Game theory can be used to model this particular fashion consumption behavior, but that has not yet appeared in the academic literature.

**Traditional utility**

Economists assume that consumers maximize their satisfaction or “utility” from consumption of the goods they buy. This utility is “intrinsic” utility in that it derives only from the consumption of products – self-satisfaction from consumption. Economists usually assume that the marginal or extra utility for each additional unit of the same item declines (holding constant other items), so once they acquire one item, they will tend to choose another item for their next purchase. As applied to fashion products, this implies that most people will wind up with a variety of apparel and related products.

However, some consumers do have peculiar preferences or “utility functions,” which lead them to value and purchase only one type (color, style) of each garment category (pants, shirt, and shoes). These consumers treat garments as uniforms. For instance, Steve Jobs, a co-founder of Apple Inc., only wore Issey Miyake’s black turtleneck, Levi’s 501 jeans, and New Balance sneakers. These clothing choices, although relatively rare, are compatible with conventional economic theory and its emphasis on the functionality of clothing.

**Social interaction theory, including conspicuous consumption and Leibenstain’s theory**

Aside from the traditional utility from goods, utility may increase or decrease with what others perceive about consumer’s taste, social status, and wealth. Firms take on such perceptions to produce
what will meet the needs of customers’ desires to send the appropriate signals. These three types of consumer behavior have been described by Leibenstein as bandwagon, snob, and Veblen effects.

The bandwagon effect reflects a desire to project one’s fashion taste in the mainstream to others: if a style is on trend, these consumers follow. The more a particular piece of apparel becomes trendy and cheaper in the market, the more these consumers will increase their demand for this product.

The snob effect involves a fashion-forward group of consumers who signal their wealth or taste through their fashion consumption. Traditionally, fashion shows in major cities such as Paris and New York present a new style at a high price. If a larger population imitates their style at a lower price, snob consumers move onto the next style. Academic thinking about the snob effect has shifted in recent years. Whereas in the traditional view, consumers focus on price as the signal of exclusivity, many fashion firms have begun limiting the supplies of products (see “created shortages by brands” above) that are non-luxury and not easily imitable. The manipulation of scarcity can lead to snob effects on demand.

The Veblen effect applies to particular products or brands. When the price of one of these products or brands increases, demand increases for this product as its value in showcasing wealth increases. If the Veblen effect is strong enough, the demand curve can be upward sloping: the higher the price, the quantity demanded increases. Bagwell and Bernheim use a game-theoretical approach to suggest that brands commit to a high price to maintain the Veblen goods status. Louis Vuitton sells products only through its own managed retail spaces where they can charge upward of $2,000 for a brown canvas logo monogrammed bag that is not even leather. There is no discount. Bernheim and Brook and Durlauf establish a utility function, which is a combination of intrinsic and social interaction utility. If consumers observe few purchases of the product, this keeps their estimate of the total number of purchases low and maintains the perceived high status associated of the item.

Interactions between Consumers and Firms

The industry research area involves suppliers’ and consumers’ interactions, which can explain the behavior of the fashion cycle and welfare analysis. While game theory has been a primary tool for explaining the fashion cycle, welfare analysis considers whether firms or societies, in general, use the limited resources in the most effective ways and, if not, what are the costs of inefficiencies. Some economists analyzed the welfare of the use of fashion in society. The result of such an analysis can have important policy implications.

Fashion Cycle

Karni and Schmeidler applied game theory to describe the fashion cycle from the consumers’ perspective. Pesendorfer used both consumers’ and firms’ perspectives. Karni and Schmeidler analyzed two types of consumers – snob and bandwagon – using three colors as “trend representation.” In a game setting where consumers choose which colors to buy, these consumers maximize expected utility based on the character type (snob or bandwagon), and observe the outcomes sequentially and for all players in nine consecutive dynamic games. The results find the “winning” color (fashion) will change over time – thus, a fashion cycle takes place.

Pesendorfer sets up a game model that involves a designer’s style innovation and the resulting diffusion of the associated garments, which leads to falling prices of the garments over time. Two different games exist: in one case, a monopoly brand such as Armani offers to consumers its sub-brand versions such as Emporio Armani and Armani Exchange. In the other case, the new
Design innovation diffuses over time in a monopolistic competitive market. In both cases, few consumers can afford the new product, which induces a snob effect increasing demand. However, as prices of the product decline and more consumers purchase the same style, a bandwagon effect sets in, and the snob effect dissipates. The resulting decline in profitability creates another fashion cycle.

**Welfare**

Whether the fashion industry offers the most effective way of running a business or is good for society is an open question. Textbooks point out that having varieties under monopolistic competition comes at the cost of “excess capacity.” Under monopolistic competition, the firms do not produce quantity at the maximum capacity at the lower cost.

Cooper and Arrow and Dasgupta use consumers’ relative consumption or the consumption level as compared with that of observable social groups. Cooper finds that welfare decreases with a high cost on the environment in production: negative externalities. Arrow and Dasgupta analyze that consumers tend to spend more on conspicuous rather than necessity goods, which decreases overall welfare for consumers. On the other hand, Woo argues that social status seeking could increase consumer welfare, as long as consumers’ status seeking is weak. Different cultures have different degrees of status-seeking behavior. It would be an attractive topic to explore what social factors explain the differences.

**Conclusion and further areas of study**

The most noticeable changes in the fashion industry recently arise from attention to social causes such as sustainability, social responsibility, and inclusivity. Where traditional concern had to do with inefficiencies from the monopolistic competition, having a variety of choices in the economy does not use the existing resources at full extent. Today’s concern is over externalities, which is an action of one agent directly affecting the environment of another agent, such examples like polluting water by dyeing garments or reducing pollution from the use of recycled plastic in garment production. Toms, a shoe company, donates a pair of shoes to needy populations for each pair sold in developed countries. The economics profession has so far made little formal progress in analyzing this type of externality in the fashion industry.

Also missing in the economic study is consumer behavior toward counterfeit, knockoff, and bootleg purchasing behavior, all of which involve copying the original. Counterfeit is a copied version with an intention to confuse consumers. It will not happen when all consumers have complete information about the original product. In practice, some consumers are poorly informed and purchase the product, not knowing it is counterfeit. Others purchase the product knowing it is counterfeit but expect others not to recognize it is counterfeit. Counterfeit products are either purchased by the gullible or by those who believe others will not recognize the deception. Counterfeiting is a trademark infringement and illegal.

The knockoff, on the other hand, is an “inspired-design” taken from well-recognized products. The products look similar but are not identical. In the article by Pesendofer, the original design needs to be imitated for fashion to cycle and eventually to provoke the original seller to innovate with another design. Patents may help the original firm collect profits from its design. In practice, however, it always takes more time for fashion designers to obtain patents than the time required to imitate their design, a situation that has come to be known as the piracy paradox.

The most recent form of fashion imitation is called bootleg fashion. These are deliberate, obviously fake items sold with no intention of deceit, i.e., a parody Gucci T-shirt. Consumers knowingly purchase a transparently fake T-shirts, which begins a peer-group trend (use of
Gucci colors, for another example). This phenomenon is called “trickle across” fashion diffusion. Each of these last three forms of imitation in fashion (counterfeit, knockoff, and bootleg) have not been the subject of much economic research, but such research should be encouraged.

In sum, this chapter has reviewed core economic theories relating to the fashion industry, analyzing firms’ and consumers’ behavior, and the joint effects of these on welfare. Since the first recognized economics paper about fashion, neoclassical intrinsic utility analysis started to explain consumer behavior around fashion, later adding the social interaction based utility. The relatively recent introduction of game theory has given economists additional tools to understand interactive behavior in the market further. It has provided theoretical explanations of observed phenomena such as fashion cycles. Those papers introduced here have made the most significant contributions to the study of fashion economics and represent the latest research topics in the field. As discussed here in the conclusion, however, there are more areas of research that should be pursued, as they will make a valuable contribution to this growing body of literature.

Notes