

# SCHOOL OF SCIENCE AND HUMANITIES

**DEPARTMENT OF FASHION DESIGN** 

**UNIT – I – Fashion Trend and Forecasting – SFDA1302** 

### UNIT I (9Hrs)

Trend forecasting- Introduction, Objectives. Importance of forecasting, Elements of forecasting, Principles of forecasting, Theories explaining forecasting, Steps in forecasting, Major areas of forecasting, Advantages and limitations in forecasting.

# **Trend forecasting**

## Introduction

Trend Forecasting is the process of researching and formulating predictions on consumers future buying habits. By identifying the source, tracing the evolution, and recognising patterns of trends, forecasters are able to provide designers and brands with a 'vision' of the future. Forecasters research and identify social, cultural, ethical or environmental shifts, and how they are likely to affect future consumer behaviour. Through this process, they can identify products and services that consumers will be looking to buy.

# Objectives

Trend forecasting is an overall process that focuses on other industries such as automobiles, medicine, food and beverages, literature, and home furnishings. Fashion forecasters are responsible for attracting consumers and helping retail businesses and designers sell their brands.

# Importance of forecasting

Forecasting is used in almost every area of business today. Accurate analysis of consumer trends is vital in forming brand direction and development, in the creation of relevant products and services and ultimately in ensuring their success.

Some important practices involved in fashion forecasting are:

- Understanding the seasons, whether the trends are being worked upon for Spring/ Summer or Fall/ Winter
- Studying trends as per the selected season and a closer look on the markets that are being catered
- Understanding the demography of that particular area
- Very importantly, deciding on the product category.

# Elements of forecasting

Forecasting, therefore, helps to know the expected profits or losses and just by going through certain reports and records of the company, enables the forecaster to take necessary decisions. Decision-making becomes better and easier when forecasting is undertaken on scientific basis.

1. Developing the ground work:

It carries out an orderly investigation of products, company and industry.

2. Estimating future business:

This follows a clear-cut plan for working out future expectancies in the form of natural undertaking with key executives.

3. Comparing actual with estimated results:

Checking the attained with anticipated results of the business periodically and tracking down reasons for major differences.

4. Refining the Forecast Process:

Once familiarity with estimating the future of the business is gained through practice, sharpening the approach and refining the procedure becomes quite easy.

# Principles of forecasting

There are many types of forecasting models. They differ in their degree of complexity, the amount of data they use, and the way they generate the forecast. However, some features are common to all forecasting models. They include the following:

- 1. *Forecasts are rarely perfect.* Forecasting the future involves uncertainty. Therefore, it is almost impossible to make a perfect prediction. Forecasters know that they have to live with a certain amount of error, which is the difference between what is forecast and what actually happens. The goal of forecasting is to generate good forecasts *on the average* over time and to keep forecast errors as low as possible.
- 2. Forecasts are more accurate for groups or families of items rather than for individual items. When items are grouped together, their individual high and low values can cancel each other out. The data for a group of items can be stable even when individual items in the group are very unstable. Consequently, one can obtain a higher degree of accuracy when forecasting for a group of items rather than for individual items. For example, you cannot expect the same degree of accuracy if you are forecasting sales of long-sleeved hunter green polo shirts that you can expect when forecasting sales of all polo shirts.
- 3. *Forecasts are more accurate for shorter than longer time horizons.* The shorter the time horizon of the forecast, the lower the degree of uncertainty. Data do not change very much in the short run.

## Theories explaining forecasting

Theories of Business Forecasting:

- Theory of Economic Rhythm
- Action and Reaction Approach
- Sequence Method or Time Lag Method
- Specific Historical Analogy
- Cross-Cut Analysis
- Model Building Approach

Business Forecasting: Theory # 1.

Theory of Economic Rhythm:

This theory propounds that the economic phenomena behave in a rhythmic manner and cycles of nearly the same intensity and duration tend to recur. According to this theory, the available historical data have to be analysed into their components, i.e. trend, seasonal, cyclical and irregular variations.

The secular trend obtained from the historical data is projected a number of years into the future on a graph or with the help of mathematical trend equations. If the phenomena is cyclical in behaviour, the trend should be adjusted for cyclical movements.

When the forecast for a year is to be split into months or quarters then the forecaster should adjust the projected figures for seasonal variations also with the help of seasonal indices.

It becomes difficult to predict irregular variations and hence, rhythm method should be used along with other methods to avoid inaccuracy in forecasts. However, it must be remembered that business cycles may not be strictly periodic and the very assumptions of this theory may not be true as history may not repeat.

Business Forecasting: Theory # 2.

Action and Reaction Approach:

This theory is based on the Newton's 'Third Law of Motion', i.e., for every action there is an equal and opposite reaction. When we apply this law to business, it implies that it there if depression in a particular field of business, there is bound to be boom in it sooner or later. It reminds us of the business, cycle which has four phases, i.e., prosperity, decline, depression and prosperity.

This theory regards a certain level of business activity as normal and the forecaster has to estimate the normal level carefully. According to this theory, if the price of commodity goes beyond the normal level, it must come down also below the normal level because of the increased production and supply of that commodity.

Business Forecasting: Theory # 3.

Sequence Method or Time Lag Method:

This theory is based on the behaviour of different businesses which show similar movements occurring successively but not simultaneously. As such, this method takes into account time lag based on the theory of lead-lag relationship which holds good in most cases.

The series that usually change earlier serve as forecast for other related series. However, the accuracy of forecasts under this method depends upon the accuracy with which time lag is estimated.

Business Forecasting: Theory # 4.

Specific Historical Analogy:

This theory is based on the assumption that history repeats itself. It simply implies that whatever happened in the past under a set of circumstances is likely to happen in future under the same set of conditions.

Thus, a forecaster has to analyse the past data to select such period whose conditions are similar to the period of forecasting. Further, while predicting for the future, some adjustments may be made for the special circumstances which prevail at the time of making the forecasts.

Business Forecasting: Theory # 5.

Cross-Cut Analysis:

In this method of business forecasting, the combined effect of various factors is not studied, but the effect of each factor, that has a bearing on the forecast, is studied independently. This theory is similar to the Analysis of Time Series under the statistical methods.

Business Forecasting: Theory # 6.

Model Building Approach:

This approach makes use of mathematical equations for drawing economic models. These models depict the inter-relationships amongst the various factors affecting the economy or business. The expected values for dependent variables are then ascertained by putting the values of known variables in the model. This approach is highly mechanical and this can be rarely employed in business conditions.

# Steps in forecasting

The 6 Steps in Business Forecasting

Forecasting is sometimes an overlooked part of business management. Other aspects, like small business inventory management, are already so time-consuming that there is little energy left to dedicate to it.

However, predicting future events can greatly help leaders make the best possible decisions. In order to boost your small business inventory management efficiency and leave some time for forecasting, you can start using a mobile inventory app.

You already took this step? Great. Then let's take a look at how the business forecasting process usually occurs.

### 1. Identify the Problem

Defining the problem can seem simple at first because it looks like you are simply asking how will the market react to a new product, or how the company's sales will look like in a few months. Even more so if you have a good forecasting tool for small business.

However, this step is quite tricky because there aren't actually any tools that can help here. It requires you to know who the forecast is directed too, how the market works, and what your customer base and competition are.

You should spend some time evaluating these issues together with the people who will be responsible for maintaining databases and gathering the data.

### 2. Collect Information

We say information here, and not data, because data may not be available yet if for example the forecast is aimed at a new product. Having said this, the information comes essentially in two ways: the knowledge gathered by experts and actual data.

If no data is yet available, the information must come from the judgments made by experts in the area. If the forecast is based solely on judgment and no actual data, we are in the field of qualitative forecasting.

If data is available on the subject, a model is used to analyze the data and predict future values. This is called quantitative forecasting. A good example is predicting the sales for a given product in order to replenish stocks accordingly. This can even be done on a daily basis if you use a good forecasting tool for small business.

### 3. Perform a Preliminary Analysis

An early analysis of the data may tell you right away if the data is usable or not. It may also reveal patterns or trends that can then be helpful, for example, in choosing the model that best fits it.

Another thing that can be done here is to check for redundant data and cut it down or make some educated assumptions. By reducing the amount of data to analyze you can greatly simplify the entire process.

### 4. Choose the Forecasting Model

Once all the information is collected and treated, you may then choose the model you think will give you the best prediction possible. There is not one single model that works best in all situations, it all depends on the availability and nature of the available data.

### Qualitative Forecasting

As we've seen before, we may not even have any historical data, in which case we have to use qualitative forecasting.

Two models that are commonly used in qualitative forecasting are a market research and the Delphi method. A market research is performed by enquiring a large number of people about their willingness to purchase a possible product or service.

The Delphi method consists of gathering forecasts from several different experts in a given area, and then compiling all that information into a single forecast. It relies on the assumption that a collective forecast is more accurate than that of a single person.

### Quantitative Forecasting

If sufficient data is available, the human factor can be removed from the equation and a raw data analysis can be performed to predict future values. A lot of mathematical values exist to do these predictions, including regression models, exponential smoothing models, Box-Jenkins ARIMA models and others.

Some forecasting tools for small business, like DataQlick, use an Exponential Moving Average Calculation model to predict product sales.

### 5. Data analysis

This step is simple. After choosing a suitable model, run the data through it.

### 6. Verify Model Performance

When the time comes, it is very important to compare your forecast to the actual data. This allows you to evaluate the accuracy of not only the model, but the entire process, and change each step accordingly.

# Major areas of forecasting

5 important Areas of Forecasting in an organisation

1. Economic development:

The economic conditions of the country as well as those of the whole world have significant effect on the operations of an organisation. This will include predictions relating to GNP, currency strength, industrial expansion, job market, balance of payments etc.

2. Technological forecasts:

These forecasts predict the new technological developments that may change the operations of an organisation. An organisation keeps upto date with new technological developments and readily adopts new methods to improve performance.

3. Competition forecasts:

It is necessary to predict as to what strategies our competitors would be employing. The competitor may be working to employ a different marketing strategy for the same product or bringing out a substitute for the product which could be cheaper and easily acceptable.

### 4. Social forecasts:

These forecasts involve predicting changes in the consumer tastes, demands and attitudes.

5. Other forecasts:

Other necessary forecasts are predictions about new laws, political events, labour supplies etc. These are all critical areas with impacts on the planning process.

# **Advantages of Forecasting**

## 1] Assists in Planning

One of the biggest advantages of forecasting is that it enables the manager to plan for the future of the organization. Planning and forecasting actually go hand in hand. Without an idea of what the future holds for the company, we cannot plan for it. Thus, forecasting plays a very important role in planning.

## 2] Environmental Changes

When done correctly, forecasts should be able to point out the upcoming changes in the environment. This means that it can allow the company to benefit from such environmental changes. When the changes are favourable to the company it can expand and grow its business. And in conditions that are adverse, it can plan and prepare to protect itself.

## 3] Identifying Weak Spots

Another advantage of forecasting is that it will help the manager identify any weak spots, or ignored areas that the organization may have. Once attention has been drawn to these areas, the manager can put into effect effective controls and planning techniques to rectify them.

## 4] Improves Co-ordination and Control

Forecasting requires information and data from a lot of external and internal sources. This information is collected by the various managers and staff from various internal sources. So almost all units and

verticals of the organization are involved in the process of forecasting. This allows for better communication and coordination amongst them.

# **Limitations of Forecasting**

Along with the benefits, there are also some limitations of forecasting. Let us take a look at a few of them,

# 1] Just Estimates

The future will always be uncertain. Even if use the best of forecasting techniques and account for every aspect imaginable, a forecast is still just an estimate. One can never predict future events with 100% success. So even the best-laid plans may amount to nothing. This will always remain one of the biggest limitations of forecasting.

## 2] Based on Assumptions

The basis of any forecasting method is assumptions, approximations, normal conditions, etc. This makes these forecasts unreliable. So one must always keep in mind the inherent limitations of forecasting and be cautious in being over-reliant on them.

## 3] Time and Cost Factors

The data and information required to make formal forecasts are generally a lot. And the collection and tabulation of such data involve a lot of time and money. The conversion of qualitative data into quantitative data is also another factor. One must be careful that the time, money and effort spent forecasting must not outweigh the actual benefits from such forecasts.



# SCHOOL OF SCIENCE AND HUMANITIES

**DEPARTMENT OF FASHION DESIGN** 

**UNIT – II – Fashion Trend and Forecasting – SFDA1302** 

### UNIT II (9Hrs)

Fashion forecasting, Role of fashion forecaster, Long- term forecasting, Short- term forecasting. Direction of fashion change, Forecasting with Trend, Seasonality and Cycles, Time series and Trends, Constant pattern, Linear pattern. Role of internet in fashion forecasting.

## Fashion forecasting

Fashion forecasting is the prediction of mood, behaviour and buying habits of the consumer. It is no longer a question of identifying your customers by age, geography or income, but looking into how and why they buy, based on their mood, beliefs and the occasion.

### Role of fashion forecaster

Fashion forecasters predict which silhouettes colours, textures, fabrics, graphics, prints, footwear, accessories, etc. will be the forthcoming trends on the runway and in retail stores from season to season. They do this by examining new and emerging trends across all industries, to see how they may influence future fashion trends. This includes new developments across the creative industries. Of course, they'll also take into consideration what's happening in the world and any cultural shifts.

### Long- term forecasting,

**Long term** forecasting (over 2 years ahead) is used by executives for corporate planning purposes. It is also used for marketing managers to position products in the marketplace in relationship to competition.

### Short- term forecasting.

**Short term** forecasting is used by product developers, merchandisers and production managers to give style direction and shape collections. For short term forecasting most apparel companies subscribe to one or more services, whose job is to scan the market and report on the developments in color, textiles and style directions.

Forecasters reflect the earliest views on trends some eighteen months in advance of the season. At this stage, color is a crucial consideration of yarn mills. It is also the focus of discussion among others who are interested in very early trend decision-making. Fashion forecasters combine the views emerging about color and fabric from the early yarn and fabric trade shows with their socio-economic and cultural analysis. Major trends in lifestyles, attitude and culture in particular music, sport, cinema and television are used to predict changing consumer demands.

Fashion forecasting involves the following activities such as studying market conditions, noting the life style of the people, researching sales statistics, evaluating popular designer collections, surveying fashion publications, observing street fashions etc.

## The Direction of Fashion Change

Observation is not enough. If the trend watcher is to take advantage, he needs a framework for explaining how the trend began and its likely path within a social system. The directional theories of fashion change trickle down, trickle up and trickle across to make prediction easier by pointing to the likely starting points for a fashion trend, the expected direction that trend will take and how long the trend will last.

Some trend watchers visualize the dynamics of fashion as a pyramid of status level. In some theories, fashion trickles down from a highly visible elite. In others, fashion trickles up from street once it is discovered by the fashion elite and introduced to mainstream audiences in an edited version. If a fashion look is promoted by the media and manufactured rapidly enough, the look can trickle across all levels of the market simultaneously for denim, introduction of an unusual color range, a modification in a silhouette or detail, a different way to wear an accessory or a mood expressed in a distinctive style. The pattern of acceptance (or rejection) can be mapped in time.

Fashion responds to whatever is modern i.e., to the spirit of the times or the Zeitgeist. People choose among competing styles, those that "click" or connect with the spirit of the times. This collective selection forms a feedback loop between the fashion industry and the consumer, a feedback loop moderated by aesthetic trends and social-psychological processes.

**The Look; Design Concept** As fashion insiders and forecasters have a mental map of the marketplace, the locations where innovations are likely to be glimpsed early, the supply chain of the textile/apparel industry and the retail conduct to consumers. Fashion insiders also have another mental map - the map of seasons and shows. When consumers shop for winter coats or summer swimsuits, fashion insiders are seasons ahead in their thinking.

Forecasters use these mental maps to organize their observations of directional information. Since innovations rarely apply to the entire marketplace, information must be tagged for the appropriate price point, category and classification. In this way, forecasters turn random bits of data into useful information for decision support, points and style directions.

# The drivers of fashion change

Social and cultural changes are major determinants of emerging fashions. However, they are themselves affected by the other drivers of change that include globalization of world markets and accessibility of more sophisticated communications technologies. The latter has provided people with faster and wider access to more ideas and influences from other cultures and societies, driving demand for wider choice in fashion products.

For everything there is a season -- this applies to fashion just as much as anything else in life. Fashion divides itself into seasons which sometimes may be tough to keep up with. If you'd like a little more insight into when fashion seasons start, getting the hang of it shouldn't take too long.

# **Different Seasons**

Fashion is split into four seasons. These seasons are Spring/Summer, Fall/Winter, Resort and Pre-Fall. The two major seasons, however, are Spring/Summer and Fall/Winter. Spring/Summer starts in January and runs until around June, and Fall/Winter goes from July to December. Resort collections overlap the first two seasons and are offered around late October through December. Pre-Fall collections appear in stores a bit before Fall/Winter collections come in.

## Confusion

It's pretty easy to see why these seasons cause confusion. In January it's still cold, so you may wonder why Spring/Summer and Resort collections would be for sale in stores. Fashion's retail calendar is a lot different from the traditional calendar. Retailers like to start selling spring clothes early. Fall merchandise arrives in stores around July, to catch back-to-school shoppers. When a new season comes in, you'll notice the prior season will generally go on sale. All of these tactics are used to maximize sales.

### **Resort in Winter**

Resort season can be especially confusing. It's wintertime and retailers are selling warm-weather clothes. Resort was initially started to cater to the wealthy who would take luxurious trips to exotic destinations during the winter months. This trend started with luxury brands and high-end stores, but has trickled down to many mass-market retailers. While people who shop mass-market retailers probably aren't jet-setting to a fancy isle, there is still logic behind this idea. Selling four seasons worth of clothes doesn't cost retailers any more but does give shoppers even more selection to choose from, which translates into more income for retailers.

### **Fashion Week**

Here's when things get confusing again. Fashion Week seasons are out of whack with retail seasons. Fall/Winter Fashion Week is held in February, showcasing trends for the upcoming winter. Spring/Summer Fashion Week is held in September, displaying trends for the upcoming spring. Collections are shown this early for a variety of reasons. Retail buyers need time to view collections and decide which pieces they want to pick up -- in turn, designers need time to manufacture those orders. Magazines, which have a lead time of three months, also need to be able to pick up samples to photograph in enough time for issues to go to print. Therefore, clothes have to be shown months before they actually hit retail stores.

### **Resort and Pre-Fall Introductions**

Because Resort and Pre-Fall aren't as major as Spring/Summer and Fall/Winter, they don't have their own Fashion Weeks. They do, however, show around the same time. Most designers choose simply to shoot their looks on models and send them out to press, while other -- generally bigger brands -- hold shows or presentations to introduce their Pre-Fall and Resort collections. In general, you'll see Resort collections around June and Pre-Fall collections in December.

Fall and winter collections may start rolling into stores by July, and spring and summer clothes trickle in before the snow even melts. No wonder it's a bit confusing when exactly the fall season starts. Add in designers' presentations of smaller collections like resort in between, and the fashion calendar seems like information for insiders only.

### **Fashion Calendar**

The fashion industry traditionally works in two distinct seasons. Spring/summer refers to the sixmonth period from January through June, and fall/winter refers to the months from July through December. However, individual designers or stores may choose to operate using slightly different months or timing.

### **Fashion Week**

Fashion Week occurs twice a year, when designers and brands preview their new collections in a weeklong series of fashion shows. The most publicized American fashion week takes place New York City. Fall clothing is shown in February, and Spring is shown in September. Fashion Week attracts publicity for the fashion industry, and retailers also get to view designers' latest collections and begin buying next season's merchandise.

### Fall

Fall fashion typically hits stores by July, in time for back-to-school shopping. Spring and summer merchandise usually goes on permanent sale at this point. Fall clothing often boasts earthy or jewel-tone color palettes (depending on the trends), long sleeves, heavier fabrics, and light outerwear. Retailers may offer weather-appropriate merchandise in stores located in warmer climates.

### Winter and Holiday

The winter and holiday shopping season during Thanksgiving and Christmas is important since people are buying a lot. Winter and holiday clothing usually arrives in stores from late October to early November and carries through the rest of the calendar year. Regardless of fashion trends, velvet fabrics, embellished clothing, heavy outerwear, and party dresses usually fill the stores.

### Season less Dressing

"Season less dressing" describes a trend of wearing the same fashions year-round. People spend more time in climate-controlled environments these days. Air-conditioned and heated cars and work spaces equal less time in natural temperatures, so there's less demand for heavy winter clothing. Fall and winter clothing may appear and feel less autumnal—designers might show lighter fabrics and lighter colors. In some places, summer clothing has become more acceptable as year-round clothing—warm-weather dresses can be adapted for fall by layering turtlenecks and tights underneath.

# Fashion cycle

A fashion cycle is the term used to describe the process that a type of fashion goes through. The fashion first gains mass acceptance and popularity from the consumers and then with time, the tastes and preferences of the consumers' ebbs, which causes the fashion to lose that acceptance and popularity.Role of internet in fashion forecasting.



The fashion cycle is usually depicted as a bell shaped curve with 5 stages:

- 1. Introduction
- 2. Rise in popularity
- 3. Peak of popularity
- 4. Decline in popularity
- 5. Rejection

### **Introduce a Fashion:**

• Most new styles are introduced in the high level.

• Designers create the designs with few limitations on creativity, quality of raw material or amount of fine workmanship.

- The create new apparel and accessory style by changing elements like line shape color ect...
- Product costs are high and only few can afford.
- Production in small quantity gives the designer more freedom, flexibility.
- New products are shown to retail buyers and press.
- At the first stage of cycle, fashion implies only style and newness.
- Celebrities, TV stars, models buy these clothes as they want to wear them in some events.

#### **Increase in popularity:**

• When new styles are seen worn by celebrities on TV or magazines they attract the attention of the general public.

- Viewers may wish to buy the new styles but perhaps cannot afford them.
- Manufactures use less expensive fabric and modify the designs to sell in low price.
- Some companies also do imitation of designer originals at low prices.

• High priced designers now have secondary sales line which sell at lower prices so they are able to sell adoptions of their original designs in great quantity.

#### Peak of popularity:

• When fashion is at height of popularity it may be in such demand that more manufactures copy it or produce adaptations of it at many price levels.

#### **Decline in popularity:**

• After so many designs copies are mass produced, people get tired of that style and begin to look for something new.

- Consumers still wear garments in style but they don't buy them at regular prices.
- Retail stores put declining styles on the sale rack.

### **Rejection of a style:**

- In the past fashion cycle some consumers must have already turned to new look.
- The rejection of a style just because it is out of fashion is called consumers obsolescence

### Theories of Fashion Adoption

Fashion moves from one person to the other. Therefore, to study fashion adoption, one must know those people who are the first to adopt a fashion. These people are **fashion leaders**. Fashion theories indicates the process of fashion ideas. The theories explain the fashion trend. It also tells about how

fashion moves from one stage to other stage. The following theories of fashion adoption explain the different ways in which fashion knowledge and adoption moves from one person to the other.

The Theories of Fashion Adoption are -

- The Trickle Down or Downward Flow Theory
- Horizontal Flow Theory or The Trickle Across
- The Trickle Up or Upward Flow Theory



Theories of fashion adoption or distribution are concerned with how fashion moves through the various socioeconomic levels of society. There are three primary theories of fashion adoption: trickle-down, trickle-across and trickle-up. However, no one theory is adequate to discuss fashion theory or explain how fashion moves through society. In addition to these theories, there is an alternate populist model of fashion adoption, which applies to some situations that identify fashion distribution as moving through social groups rather than socioeconomic classes.

# **Trickle-Down Theory**

Coined by economist Thorstein Veblen in 1889, the trickle-down theory of fashion adoption assumes that fashion begins in the upper echelon of society. Styles worn by the wealthy change, and those changes are gradually adopted by the middle and lower classes. When those styles have been assimilated by the lower classes, the wealthy, in turn, change their style and attire. This theory assumes that the lower classes want to emulate the upper classes and is the oldest theory of fashion adoption. It is applicable historically, particularly prior to World War II. Styles from the white blouses of the Gibson Girl era to the shorter hemlines of the 1920's began in the upper classes.

# **Trickle-Across Theory**

First developed in the late 1950's, the trickle-across theory assumes that fashion moves across socioeconomic levels relatively rapidly. Clothing styles do not trickle down but appear at all price points at approximately the same time. Mass communications and popular media support the existence of this theory, providing pictures and details about new styles, as does the modern retail

world. Many designers show similar styles in a variety of lines, ranging from high-end designer clothing to lower-end affordable pieces. Once a design appears on the runway, a variety of companies produce similar garments, allowing widespread access to fashion. From the 1960's shift dress to the shoulder pads of the 1980's, these garments were available in discount, department and designer stores at approximately the same time.

# **Trickle-Up Theory**

The trickle-up theory of fashion adoption reflects changing styles and practices in fashion. According to the theory, styles may begin with youth or street fashion and move progressively up the fashion ladder until they are favoured and worn by older and wealthier consumers. Coco Chanel was the first to adopt this theory when she integrated military fabrics and attire into fashion following World War II. The classic T-shirt began as an undergarment in the working classes and is now a fundamental piece of the everyday wardrobe. Once the styles have been adopted by more traditional consumers, the street or youth culture may adopt a new style.

# Role of internet in fashion forecasting.

The internet plays a big role in fashion forecasting. Forecasters will research upcoming designer and celebrity collections and new looks popular on sites like Instagram. Ultimately, a fashion forecasters' responsibility lies in assisting designers and retailers to attract more customers and sell their brands.

## **Role of Social Media in Fashion Forecasting**

Internet has a lot of power which can bring a lot of opportunities and challenges. Social media is growing a lot which is a platform for promoting a company's profile with simple and short information and in case of a forecaster they can give simple and short information which can hype up the youth. Social media has given rise to a lot of fashion bloggers and influencers which are getting a lot of attention online. There are a lot of information which is available on the internet which now accessible for everyone. Many forecasters can get some creative ideas via some bloggers and their websites which sometimes reflect our youth, there are companies who consult many bloggers just to make sure that they won't lose any single point for becoming the top brand.

When it comes to advertisement social media is the best platform for you and with the help of it you can advertise to a particular type of people with the help of influences of that field and with the help of information given by the customers it is easier to predict upcoming trends.

## Technological Developments in the Trend Forecasting World Today

This year there are a lot of improvements in technology as there are new technology like artificial intelligence is introduces to the fashion world. AI or artificial intelligence started in the year 2017 but by now it is very normal as we all have adapted to it very well.

AI helps a lot in collecting, organizing and analysing all types of data which will help the designers and forecaster in predicting the trend with the help of information AI has gathered from different sources.

A great example of AI is the app created by Kardashian which is Screenshot that uses AI image recognition which helps the customer to find any type of dress of any price range which just an image or screenshot of it. This app does helps in updating your wardrobe without heading out of your house, which is just amazing.

So, if we look at a country like India which is rich in culture and has lots of color, style, and fashion in every part of their country and it can differ from city to city. IBM or International Business Machine are working together to bring a new AI engine which will help them in forecasting or predicting the

next big trend of the country which will relatable with styles, color, and sizes and which will increase their sales and profit and their main aim to give the customers what they want but at a reasonable price.



# SCHOOL OF SCIENCE AND HUMANITIES

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**UNIT – III – Fashion Trend and Forecasting – SFDA1302** 

### UNIT III (9Hrs)

Fashion forecasting process, Activities. Market research- Consumer research, Shopping, Sales records, Evaluating the collections- Fashion trends, Trends for target markets, Colour forecasting, textile development and sales forecasting. Fashion services and resources- Collection reports, Trend reports, Consulting services, Fashion editing, Trade publications.

# **The Fashion Forecasting Process**

### a) Trend forecasting businesses

French companies based in Paris have traditionally dominated fashion forecasting. Although a number of larger ones are still based in Paris, many with satellite offices around the world, a number of new niche forecasters have emerged offering their own specialties of product and services. Some better-known trend forecasters include:

.SachaPacha .Peclers Trend Union .Line Creative Partners .Au Studio Promostyl .Promostyl

Forecasting is more that just attending runway shows and picking out potential trends that can be knocked off at lower prices (although that is part of it). It is a process that spans shifts in color and styles, changes in lifestyles and buying patterns and different ways of doing business. What appears to be near random activity is in fact a process of negotiation between the fashion industry and the consumer, and between the various segments in the supply side chain.

### b) Consumer research

Manufacturers and retailers may ask consumers directly about their buying preferences. Consumer reactions are compiled and tabulated to find preferences for certain garments or accessories, colors or sizes and so on ,or products to fit specific consumer tastes.

Surveys, by telephone or mail are conducted by publication and market research companies for manufacturers and retailers. These surveys include questions about income, life-style, fashion preference and shopping habits. Customers are usually selected by the market research firm to meet with manufacturers or retailers. In-store informal interview can help researchers obtain information by simply asking customers what they would like to buy, what styles they like that are currently available and what merchandise they want, but cannot find. Because of their close contact with their customers, owners of small stores can often do this most effectively.

The apparel supply chain has one purpose, i.e. to provide an appealing and desirable product to satisfy customer needs, wants or aspirations. When successful, the connection results in a sale, because this connection is the purpose of the process. Every forecast begins with the customer, by observing the customer's adjustments to the marketplace and in the unexpected ways the customer adjusts the marketplace to his lifestyle and preferences.

Consumer research figures are important in decisions about product development, brand marketing and retailing.

### c) Colour Forecasting

Stimulating sales is the driving force behind color forecasting. Color grabs the customers' attention, makes an emotional connection and leads them to the product. Even when the basic product stays the same, changing the color gives a sense of something new. Color consultants help companies decide on the right color story to sell the product. Some consultants specialize in advising on color. Others develop color forecasts as part of their overall product development function. Some large companies have departments dedicated to setting color directions for multiple lines. Professional color organizations bring together experts to collaborate on forecasts for industries like women's wear, men's wear, children's wear and residential and non-residential interiors.

### d) Textile Development

Frequently, the development of a completely new product is the result of a particular functional need, but often it is driven by the benefits offered by a new fabric. Specialist forecasters make the point that the technology is changing the range of product, as through the ranges of benefits that designers can build into garment product through the textiles used in construction.

Fabrics range from slick surfaces like leather and futuristic plastic to softer surfaces like cashmere, from flat weaves to heavy textures like boucle and from the solid structure of flannel to the web-like open structure of crochet. Clothing has been called "the second skin" in recognition of its intimate connection with a person's physical and psychological comfort (Horn, 1975). So it is not surprising that news about which fabrics are "in" or "out" plays such a prominent role in forecasting fashion. Newness in fabrics comes from the introduction of new fibres, the manipulation of yarn and fabric structures, variation in pattern and prints and innovative finishing processes. These innovations are introduced in trade shows and exhibitions held in the fashion capitals of the world.

### e) The Range of shows

The fashion shows: The word here is its widest possible interpretation to refer to the range of organised textile and fashion garment trade shows, operating over the 16 months preceding season. Trade shows, whether yarn, fabric or product have a basic function, which is to sell products.

Visitors vary according to the nature of the show. A yarn show will attract a range of people including fabric manufacturers, some retail buyers and designers. The fabric show performs a more balanced role with great emphasis on then sales of the fabric, but with more retail designers and buyers attending, as the product on the show has a greater relevance to garment design. Garment design shows are much more diverse, ranging from the products trade shows through to the high profile Ready -to-wear Designer shows like London Fashion week and then the exclusive Couture shows.

Continuing this sequence, specialist product trade shows are held after the fabric shows. These shows are segmented according to broad sector like men's wear or women's wear, and by specialist product categories, like sportswear or lingerie. These shows are a good indicator of color, fabric, styling and new products.

### f) Sales Forecasting

Forecasting is relatively easy, straightforward and accurate for products with long lifetime and steady sales. However, the fashion apparel business is one of the most volatile, because it creates products that are new, highly seasonal or have short lifetimes. In such situations forecasts become increasingly

inaccurate. Errors in sales forecasting result in two kinds of losses:

**Markdowns**, when retailers have unwanted goods remaining at the end of a selling period, such goods then must be sold, even at a loss.

.Lost sales on more popular items because of **stockouts** (merchandise not available in stock at the time when consumers request it).

Companies have been slow to recognize the changing market environment and adapt forecasting practices to decrease the uncertainty about product demand. Sales forecasting impacts every apparel executive's work life, whether they help develop the analysis, read and act on the reports or merely react to the result of over- or under-estimating sales. For this reason, apparel executives need a basic understanding of the traditional approaches to sales forecasting and the leading-edge technologies making real-time marketing a reality in the apparel industry.

Eventually, a manufacturer and retailer researches his own sales record. Rising sales statistics show what fashion trends are developing and declining sales show what styles have passed their peak.

Overall sales show, that as style is not meeting consumer needs for quality or fit, its time to drop it from the line and move on to new styles.

### **Introducing Innovation**

While attention is showered on the most exciting and extreme runway fashions, the mechanisms of fashion change work in the background to create patterns familiar to the most experienced fashion watchers. When an innovation arrives on the scene, individuals consider it for adoption. The cumulative effect of those decisions can be tracked in sales and visually on the street. In fashion terms, the innovation may be the invention of a new fiber or a new finish.

### g) Cultural Indicators

In the apparel field, companies need an early warning system so that specific product categories can be fine-tuned to trends within a market segment. While timing is important, an agile and responsive company will be able to capitalize on trends whenever they are spotted; sometimes just as a glimmer far in the future and sometimes as a phenomenon in the building stage. Waning trends are another signal. When some avocation, interest or lifestyle loses cultural power, it is a good time to survey the information landscape for the next big thing.

### h) Final Stage of fore casting

The 'Fashion look' for the season is therefore the result of a process of development that combines the evolved views of textiles and product trade show, forecasters, designers buyers and ready to wear shows. Like collage, the final picture emerges after various layers have come together. Even though these shows have an impact on some last minute high street fashion buys, their major impact is mainly on reflecting the final views on trends close to the season. Crucially, the media coverage of the shows is another important dimension in the trend development process, as it highlights fashion trends that fashion editors believe will be strong for the forth coming season. Such 'authoritative' coverage of the media, focusing attention on aspects of fashion, including the 'must-have' looks, colors and products influences the consumers' acceptance of hot trends for a season.

### Forecasting fashion in the Indian scenario

The phenomenon of fashion moving from the ramp to the road seems to have started happening in India. Over the last one year, fashion has been highly visible, at least on the streets of metros. Western winds of fashion are reaching metros like Mumbai and New Delhi virtually overnight. We also see new categories added to customer wardrobes like clubwear, travel gear and loungewear. This indicates a segmentation of the customers' wardrobe. This also means that there are new brands and labels, although not heavily advertised, easing into the market riding on the trend of new segments. We expect this trend to rise further, mainly because fashion as a market allows brands to be created mainly on the product look. The biggest achievements are not from increasing efficiency, but by risk management. This would mean that by riding on fashion trend one would fetch maximum benefits. However, there is no agency today, which brands or retailers can follow for fashion forecast of domestic market. We still have to follow international forecasts and thereby miss out on lot of opportunities.

# Activities

Fashion forecasting involves the following activities such as :

- 1. studying market conditions,
- 2. noting the life style of the people,
- 3. researching sales statistics,
- 4. evaluating popular designer collections,
- 5. surveying fashion publications,
- 6. observing street fashions etc.

## Market research

**Definition:** The process of gathering, analyzing and interpreting information about a market, about a product or service to be offered for sale in that market, and about the past, present and potential customers for the product or service; research into the characteristics, spending habits, location and needs of your business's target market, the industry as a whole, and the particular competitors you face

Accurate and thorough information is the foundation of all successful business ventures because it provides a wealth of information about prospective and existing customers, the competition, and the industry in general. It allows business owners to determine the feasibility of a business before committing substantial resources to the venture.

Market research provides relevant data to help solve marketing challenges that a business will most likely face--an integral part of the business planning process. In fact, strategies such as market segmentation (identifying specific groups within a market) and product differentiation (creating an identity for a product or service that separates it from those of the competitors) are impossible to develop without market research.

Market research involves two types of data:

- **Primary information.** This is research you compile yourself or hire someone to gather for you.
- Secondary information. This type of research is already compiled and organized for you. Examples of secondary information include reports and studies by government agencies, trade associations or other businesses within your industry. Most of the research you gather will most likely be secondary.

When conducting primary research, you can gather two basic types of information: exploratory or specific. Exploratory research is open-ended, helps you define a specific problem, and usually involves detailed, unstructured interviews in which lengthy answers are solicited from a small group of respondents. Specific research, on the other hand, is precise in scope and is used to solve a problem

that exploratory research has identified. Interviews are structured and formal in approach. Of the two, specific research is the more expensive.

When conducting primary research using your own resources, first decide how you'll question your targeted group: by direct mail, telephone, or personal interviews.

If you choose a direct-mail questionnaire, the following guidelines will increase your response rate:

- Questions that are short and to the point
- A questionnaire that is addressed to specific individuals and is of interest to the respondent
- A questionnaire of no more than two pages
- A professionally-prepared cover letter that adequately explains why you're doing this questionnaire
- A postage-paid, self-addressed envelope to return the questionnaire in. Postage-paid envelopes are available from the post office
- An incentive, such as "10 percent off your next purchase," to complete the questionnaire

Even following these guidelines, mail response is typically low. A return rate of 3 percent is typical; 5 percent is considered very good. Phone surveys are generally the most cost-effective. Here are some telephone survey guidelines:

- Have a script and memorize it--don't read it.
- Confirm the name of the respondent at the beginning of the conversation.
- Avoid pauses because respondent interest can quickly drop.
- Ask if a follow-up call is possible in case you require additional information.

In addition to being cost-effective, speed is another advantage of telephone interviews. A rate of five or six interviews per hour is typical, but experienced interviewers may be able to conduct more. Phone interviews also can cover a wide geographic range relatively inexpensively. Phone costs can be reduced by taking advantage of less expensive rates during certain hours.

One of the most effective forms of marketing research is the personal interview. They can be either of these types:

- A group survey. Used mostly by big business, group interviews or focus groups are useful brainstorming tools for getting information on product ideas, buying preferences, and purchasing decisions among certain populations.
- **The in-depth interview.** These one-on-one interviews are either focused or nondirective. Focused interviews are based on questions selected ahead of time, while nondirective interviews encourage respondents to address certain topics with minimal questioning.

Secondary research uses outside information assembled by government agencies, industry and trade associations, labor unions, media sources, chambers of commerce, and so on. It's usually published in pamphlets, newsletters, trade publications, magazines, and newspapers. Secondary sources include the following:

• **Public sources.** These are usually free, often offer a lot of good information, and include government departments, business departments of public libraries, and so on.

- **Commercial sources.** These are valuable, but usually involve cost factors such as subscription and association fees. Commercial sources include research and trade associations, such as Dun & Bradstreet and Robert Morris & Associates, banks and other financial institutions, and publicly traded corporations.
- Educational institutions. These are frequently overlooked as valuable information sources even though more research is conducted in colleges, universities, and technical institutes than virtually any sector of the business community.

# **Consumer research**

### What is consumer research?



Consumer research is the practice of identifying the preferences, attitudes, motivations, and buying behaviour of the targeted customer. Using a variety of customer research methods to gather this information, shared traits among the different customer groups are identified and categorized into customer segments and buyer personas, which are then used to create marketing campaigns targeting a specific segment or persona.

Consumer research is the key to improving your product and successfully marketing to customers who want to do business with you. Interviews, surveys, and other customer research methods are some of your best friends when it comes to helping your company consistently increase its revenue year on year.

### What is a customer segment?



A customer segment, also called a consumer segment, is a group of individuals who share specific traits relevant to marketing, such as age, location, gender, spending habits, and interests. The purpose of a customer segment is to provide a better understanding of how different groups of customers make purchasing decisions, and to allow marketing efforts to be more targeted and better tailored to those distinct groups.

Different customer segments may require different messaging, different communication channels, or even different pricing options. Additionally, customer segments can help a start-up identify the most profitable customers, establish better customer relationships, and improve customer service. Without identifying customer segments through consumer research, your start-up may not fully recognize the specific demands of your customers, resulting in missed opportunities and failing to gain a competitive advantage in your market.

### How to conduct consumer research

Consumer research can take many forms, from notes your team takes on a daily basis (such as sales and customer support calls) to more planned and structured methods of data collection.

Identifying the best consumer research methods for your business may take some trial and error, but the rewards are worth it. Wherever possible, your customers should be grouped into customer segments to help you achieve the goals of your data collection.

### **Consumer Research Methods**



#### Interviews

Interviewing customers who are going through different stages of their journey with your product can be time-consuming. Even though interviews may prove to be a significant challenge, they can also be one of the most eye-opening and valuable consumer research methods your startup can undertake.

Interviews offer a high level of insight into the mind of the customer with very specific details on their needs, wants, and motivations as they relate to your product. This information is invaluable for any startup, but it isn't always easy to obtain. The data collected from interviews can be used across all aspects of your marketing strategy for a 12-month period. After this time, you should begin the process again to account for changes in your business and changes to your customer base.

If you don't have the resources to carry out interviews (or your customers won't oblige), there are other ways to gather some solid data.

### Surveys

Surveys might be the most commonly used consumer research method, and for good reason too. Surveys don't necessarily offer the same level of insight as interviews, but they are much easier to get customers to participate in and provide feedback due to their simple nature. They are a quick and easy way for customers to provide feedback and feel their needs are valued by a company.

Surveys are conducted in a number of ways with varying degrees of effectiveness, but generally speaking, the response rate for surveys is much higher than interviews. Having a larger sample size makes it easier for a startup to recognize similar characteristics and patterns among consumers.

Some of the most common survey methods include retention email, snail mail, over the phone, faceto-face, in apps or website, and even through text messages on mobile devices. Surveys can be selfconducted (the person responding will read and answer questions unattended) or they can be conducted by a person who records their answers.

- New customer survey
- Established customer survey
- Past/canceled customer survey
- Thank-you page survey
- On-page pop-up surveys
- On-site polls
- User testing
- Net Promoter Score

### Analytics

Using analytics as a form of consumer research is very different than interviews and surveys. Rather than focusing on what the customer says they want or need, analytics focuses on what the customer actually does. This is a form of observational research where the purpose is to measure the actual behavior rather than customer-reported behavior. It's great to know what a customer wants, but sometimes they don't even know what they really want or why, which is why it's so important to track their behavior and make changes that get actual results.

- Google (e.g. bounce rate, time on page, traffic)
- Heat maps
- Click tracking
- Scroll mapping
- User recorded sessions

### **Review mining**

Review mining is an often overlooked consumer research method, but also one of the most valuable methods, especially in SaaS, when it comes to cost and value. Review mining is the process of researching reviews of competitors to gather qualitative data to improve your own product.

Unlike interviews and surveys, review mining doesn't require that you reach out to your customers to get feedback. Instead, all the feedback is already published and readily available for you to analyze, making it extremely easy to acquire valuable data to help your startup gain a competitive advantage. In fact, it might just be the most effective way to not make the same mistakes your direct competitors have made, and identify specific features that make similar products sell.

- Amazon
- Review-based websites (e.g. G2 Crowd and Trust Radius)
- Forums and comments (Reddit, Facebook, LinkedIn, Product Hunt, blogs)

This is by no means an exhaustive list of the ways you can capture your voice of customer data, but it's a good start if you're not sure where to begin.

### Why is consumer research important?



### The voice of the customer

The voice of your business should mirror the voice of your customer, and your product should satisfy their needs. How better to attract your ideal audience than by using the language they use, reflecting back the pains they feel, and being there to help them find a solution to their woes. And by solution, I mean *your* product.

Capturing the exact words and messages of your customers by speaking directly with them is a goldmine for your marketing strategy.

A recent Co Schedule study revealed that:

- Successful marketers are 242% more likely to conduct audience research at least once every quarter
- 56% of the study's most elite marketers conduct research at least once a month

### **Buyer personas**

Now that you understand what a buyer persona is (see above), it's important to recognize why they are so valuable and what they actually look like. An example of a buyer persona might look something like this: *Wendy, the 45-year-old single mom with 2 kids who earns a modest income and enjoys tennis.* But what does this actually mean? The reason it is so useful is because it is based on actual research from customer data, rather than being dreamed up in a meeting room by marketers who imagine that this is their target audience.

Conducting in-depth research on your prospects and customers will help to give you a clear snapshot of who your customers *really* are. This can often be an eye-opener. Some companies sink their precious marketing budget into targeting their ideal customers when their actual audience is quite different – so all the money spent on marketing has little effect.

Say, for example, you own a second-hand shop. All your marketing efforts target the 30-40 age group who you imagine is your ideal audience – they are shopping with an eco-friendly, sustainable mindset. You can't understand why your targeted marketing is having very little impact on your sales. But after surveying your *actual* customers, you find the majority of them are thrifty 50-somethings looking for bargains. A completely different audience from the one you've been trying to attract.

When you carry out regular consumer research, you'll have a much more accurate idea of the demographics that matter to your business. Building buyer personas based around this factual data have a far better chance of impacting your growth marketing than using educated guesswork.

### Content

Content is one of the reigning champions of marketing for the top of the funnel. But if you're basing your content creation on what you feel like writing, what competitor sites are doing, or what an influencer website said was hot to write about right now – your content marketing might be in need of some help.

Your customers are exactly that – yours. They found you and subscribed for a reason, so why not find out what that reason was, and ask them what they'd like to read more of?

Simple pop-up Web surveys or a casual email asking readers what they'd like to read more of on your site can provide you with ample content ideas to fill up your quarterly calendar.

### Improving conversion rates

Every great conversion expert knows that the best performing copy and design is linked directly to the customer experience.

Copywriters, designers, and optimizers all look to consumer research data in their process – from beginning to end. Long after the main project has finished, A/B testing still relies on customer data to pinpoint the weak areas and make improvements.

Design trends and best practices may change, but the one thing that remains constant is your customer.

### Growing your business

Audience research is crucial to your business growth. Keeping in touch with your customer base is one of the best ways to find out what you're doing right, and how to pinpoint what customers see as flaws in your product or service. Customer satisfaction can be measured with the Net Promoter Score (NPS) system, which directly correlates with your business growth.

In conclusion, don't underestimate the impact that regular consumer research can have on your business, whether you're at start-up or enterprise level. The data you collect can impact the way you build your product, market your services, and message your audience, all of which are directly tied to healthy and sustainable business growth.

### **Sales Records**

**Definition:** The information you have on your customers, including but not limited to their contact information, how often they purchase from you, what they purchase and how they pay their bills

Your company's sales records are quite likely to prove your most

valuable marketing information source. Files of customer purchases with addresses, amounts, dates, products, payment methods, returns and other information constitute a rich trove of marketing data. You can analyze this information to find out who your best customers are, what they like the most, and what kinds of marketing approaches appeal to them most powerfully.

One of the best things about doing market research with your own records is that it's all proprietary. No one else has the same data you do, and there's no information anywhere that is more appropriate to your business. Add in the fact that market research using your sales records is economical, and it's a powerful combination. Do everything you can to capture and analyze information from your own sales.

## Definition of Collection or Line in the Apparel Industry

The fashion terms "collection" and "line" are mistakenly thought to be interchangeable. While both are common terms in the fashion industry, a fashion line refers exclusively to all of the clothing a fashion designer produces for a specific category within her fashion company, while a collection refers to a seasonal production of different styles within a line for that same company.

### **Collection Within a Line**

Collections are found within a line, while a line may be composed of multiple collections. A company may have multiple lines defined by gender, lifestyle or price point while having upwards of eight collections per year per line. Menswear, women'swear and haute couture are considered lines -- the clothing shown in each of these categories during runway shows for a particular season makes up the collection.

### **Fashion Seasons, Lines and Collections**

Every year, a fashion line produces multiple collections related to various seasons. Larger apparel companies often have four or five lines, and each line will have a new collection produced for each season. There are eight seasons in fashion; each season ensures retailers remain stocked year-round with new merchandise. These seasons include Spring and Fall, as well as lesser known seasons such as holiday and resort.

# **Trends for target markets**

What Is a Target Market?

A target market refers to a group of potential customers to whom a company wants to sell its products and services. This group also includes specific customers to whom a company directs its marketing efforts. A target market is one part of the total market for a good or service.

Consumers who make up a target market share similar characteristics including buying geography, buying power, demographics, and incomes.

Identifying the target market is an essential step for any company in the development of a marketing plan. Not knowing who the target market is could cost a lot of money and time for a company.

### **KEY TAKEAWAYS**

- A target market refers to a group of customers to whom a company wants to sell its products and services, and to whom it directs its marketing efforts.
- Consumers who make up a target market share similar characteristics including geography, buying power, demographics, and incomes.
- Identifying the target market is important for any company in the development of a marketing plan.
- Not knowing who the target market is could cost a lot of money and time for a company.

### **Understanding Target Markets**

Part of the success of selling a good or service is knowing to whom it will appeal and who will ultimately buy it. That's why businesses spend a lot of time and money to define and monitor its target market. That's because not all products and services are meant for every consumer, who are generally cautious with their money.

Target markets are generally categorized by age, location, income, and lifestyle. Defining a specific target market allows a company to home in on specific market factors to reach and connect with customers through sales and marketing efforts.

Testing a target market often occurs well before a product is released. During the testing phase, a company may use limited product rollouts and focus groups, allowing the product managers to get a feel for which aspects of the product are the strongest. Once a product is released, the company can

continue to monitor the demographics of its target market through sales tracking, customer surveys, and various other activities that allow the company to understand what its customers demand.

Defining a target market is important for any business because it means the difference between selling a product or service and sitting on the sidelines while the competition boosts its revenue.

Not knowing its target can be a big mistake for a business. Trying to rustle new clients or customers without knowing who it will target can cost the business a lot of time and money.

### Segmenting the Market

Dividing a target market into various segments is as simple as dividing the population into groups that can be measured by key characteristics. These include gender, age, income levels, race, education, religion, marital status, and geographic location.

Consumers that fall into these groups tend to value the same products and services, which is why narrowing down these segments is one of the most important factors to determine target markets. For example, people who fall into a higher income bracket may be more likely to buy specialty coffee from Starbucks instead of Dunkin' Donuts.

A business may have more than one target market—a primary target market, which is the main focus, and a secondary target market, which is not as large but still has growth potential.

### **Target Market and Product Sales**

The target market is a central focus within a marketing plan that determines other essential factors for the product, such as distribution, price, and promotion efforts. The target market also determines significant factors about the product itself. In fact, a company may tweak certain aspects of a product, such as the amount of sugar in a soft drink, so that it is more likely to be purchased by consumers with varying tastes.

As a company's product sales grow, it may also expand its target market internationally. International expansion allows a company to reach a broader subset of its target market in different regions of the world.

In addition to international expansion, a company may also find its domestic target market expands as its products gain more traction in the marketplace. Expanding and growing target markets are all the more reason for companies to monitor their sales and customer preferences for evolving revenue opportunities.

# **Colour forecasting**

Colour forecasting is an integral part of the trend forecasting industry, published up to two years in advance of each season, it contributes significantly to the overall product design process, influencing fashion, textile and accessory development. This chapter will discuss its inception, development, role in range planning, and the development of seasonal colour palettes featuring new fashion colours. The available colour forecasting formats will be explained, plus how trends are compiled, highlighting key timescales, information gathering techniques and intuitive colour selection. Core fashion colours, long and short term colours and their applications will be investigated. The future of colour forecasting and challenges faced by traditional forecasters in response to fast fashion are also discussed.

Understanding and forecasting colour trends in design

Assimilation of colour forecasting by different cultures

Colour forecasting can be used differently by different users. The information can be used as source of inspiration to make a correct colour choice for a new product development or to produce an inhouse colour palette to create a brand's own colour range. However, ultimately, the purchasing decision-making belongs to the consumer who will make a choice based on personal preferences, but also based on what is available and displayed in the market. In 2004, I was in Milan, Italy, with my husband and he had got me a pair of Casadei yellow-green shoes that I found fascinating. We were then living in Dubai. So when we returned home, I rummaged around all shopping malls in Dubai looking for a handbag to match the shoes, but to my disappointment could not find any. After so many days of searching and asking around, I realised the colour was not in the market yet. It took another year for this colour to reach Dubai, so I was basically ahead of the trend with my yellow-green shoes. When it comes to colours, consumer preferences can play the most important role in the purchase decision-making; however, if the colour is not available in the market, the colour a brand is offering will prevail.

Colour forecasting is not assimilated equally in all markets and by all cultures. In May 2009, I conducted various trend seminars in Malaysia, Thailand, Taiwan, South Korea and China. Each time I presented the colour forecast I had prepared, I found the Asian audience wanted to know little about colour trends in Asia; they were mainly interested in getting the colour forecast for Europe and North America, and they wanted to learn about the influences in those markets so they could apply them to their own markets. By contrast, in Europe, western Europeans prefer to have their own colour forecast and will not use a colour forecast designed for eastern or southern Europe, as the local associations to certain colours vary from one country to another and personal preferences can be far apart.

### The use of colour in textile design

If black is style and sophistication then colour is fashion. Today there is a less doctrinaire approach to trends in both colour and style; with the broader ranges of collections being tailored to a variety of fashion outlets, compared to the set seasonal looks of the past.

Black still defines a definite form in fashion; representing power and timelessness. Chanel's little black dress, associated with longevity, exists alongside all the standard neutrals; navy, beige and cream. 'Colour' increasingly, however, is a vehicle that refreshes each season's palette creating its nuance, brand identity and product.

Mapping trend/fashion on the Internet are style fashion sites, where the immediacy of the 'blog', creates a platform for expressing individualism. The 'Sartorialist' is such an example of a very active forum that has developed a cult for personality, the democratising of style and a means of identifying developing trend and colour choices. 'COLOUR lovers', another, is directly aimed solely at colour and is the focus for comment and instant pattern interpretation. Here colour palettes can be given identity, individually rated and views expressed.

In production terms industry has responded to the demands of the market and consumer. The leadtime, which is the time it takes to get a product to market, generally requires palettes to be predicted early on in the manufacturing sequence. For the fibre and yarn producers, at the beginning of the supply chain, these colour decisions have to be decided on earlier in the production process and are important to get right.

Companies who follow rather than create a trend can control a response to the market through good communication within the supply chain and a quick turnaround of product. These can analyse their colour ranges, replacing or repeating colours as sales demand.

A shorter lead-time can be achieved through the dyeing of garments, piece dyeing rather than that of fibre, yarn or fabric. At this later stage it is much easier to read colour trends and follow this by a quick response to manufacture. Fashion brand Benetton are an example who produce collections of

white knitted garments, initially dyeing only a test range to be sold in key outlets. Colour decisions can then be positively based on known preferences and sales.

As an investment, getting a colour palette right for the fashion and textile industry brings more of a tailored focus to brand and product identity. Trend prediction companies present colour palettes and trends in design up to two years in advance offering a variety of services from books and magazines to specific services relating to the requirements of an individual company.

Global Color Research<sup>TM</sup> is a forecasting company based in London, whose focus on colour trend prediction is primarily interior related. The breadth of its business, however, permeates and influences fashion, as well as the wider industry that needs to understand and rely on colour directions. They publish *Mix Trends* twice a year for Spring/Summer and autumn/ winter alongside a quarterly magazine. Their exquisitely photographed *Trend* books form the basis of the business and are designed two years ahead of the season they are targeted to, presenting generally four main colour themes.

Added to this business is a bespoke colour service for a range of clients. Justine Fox of Global Color Research<sup>TM</sup> explains that their main markets are varied and include industrial, architectural, electronics, pigments/dyestuff, textiles and a wide array of product as well as interior design. In terms of fashion they look more towards cosmetic trimmings and textile dyestuff rather than clothing, though this is dependent on the bespoke needs of their clients; with many fashion retailers subscribing to their magazine *Mix* to obtain a rounded view of seasonal colour and trends.

Fox sees the colour stories as a progression from the last book:

'Interior colour forecasting is more of a development of colour than fashion forecasting. We do keep in mind the season that they're directed to in terms of the types of products our subscribers will be developing, but again this influence is less than in Fashion. When our panellists are formulating the stories, they're talking about developments in colour technology (our panel members are all colour experts within their own fields and come to us from around the world). Changes in legislation, e.g. recent energy efficient bulbs change the way colours appear to us, what's happening politically, socially and economically – these all affect the colour choices that consumers will make in the future.' (Fox, personal communication 2010)

Fox also sees the colour prediction business as a mixture of intuition, obviously based on experience and analysis. She notes, 'The market is full of trend spotters who are really just reporting on emerging trends, but we're looking to take that information and project beyond it to make accurate colour forecasts that our subscribers and clients can rely on. The wrong colour choice is a massive loss in capital and can be the decider between success and failure.' (Fox, personal communication 2010)

This emphasises the importance of colour within a range of products and Fox sees materials as key to colour, 'rather than a promotion of the colour, they affect how we see the colour and the effects that create the mood'. (Fox, personal communication 2010)

Materials and colour are the exciting challenge for the designer to create a relevant design but it is the synthesis of the two elements that creates the product and the price of that product determines the level at which and when it enters the market.

Fox acknowledges how trends hit different levels of the market at different points, 'We see it as a curve. The key is to make sure that you select the right trend for the right product at the right time ... a recent client saw an approval rating of 90% in consumer research on a new colour and texture range we made for them. We can achieve this level of accuracy by pinpointing the trends to specifics.' (Justine Fox, Global Color Research<sup>TM</sup>, February 2010).

Simon Siegel, from the retail and contract Interior design company Atomic Interiors, Nottingham perceives new collections of colour ranges for furnishing fabrics in a similar way to Fox; as an 'editing process'. From the extensive sample collection this 'editing process' is the measure of a current season's trend direction, based on comparison with the previous season. Changes to key colours define trend direction; neutrals and popular colours such as red tend to be subjected to more subtle changes. An all round view of colour is gained from an understanding of how a variety of materials and products function in terms of colour in an environment. Atomic deal not only with a range of high end furnishing fabrics such as Kvadrat, Gabriel and Bute Fabrics; materials that are standard for architects and interior designers, but also upholstery leather by Elmo and Spinney beck, plastics and laminates and key colours for chairs, sideboards and wardrobes by leading companies such as B&B Italia. This holistic view of colour within a variety of materials allows for an understanding of the context of colour within an interior, an important focus for the interior textile designer.

### Interior textile design

### Colour

In the interior textile market design and colour forecasting is not easy to predict or anticipate, new emerging key colours are introduced and inspire other designers and a colour trend emerges. Unlike the fashion or apparel market where seasonal colours are predicted or one could say prescribed and consequently they appear in many forms and many brands at one time. In interior textiles there are pioneers of style and design that emerge and become successful due to their capability to innovate and set trends. These pioneers assist in the strengthening and establishing of wholesale brands by the creation of unique handwriting, use of colour and the successful development of dynamic ranges of interior textiles. Many of these brands lead the market with strong colour direction that is interpreted across the international markets creating a wave of support and resulting in key colours emerging. When colours become 'key trend colours' they remain in the commercial colour palette for a few years, maybe not at the forefront for long but in coordinating accent combinations dropping back from mainstream leading colour palette in interior furnishings. Recent trends have included combinations of black and white, duck egg blue combined with chocolate brown, lime green presented with fuchsia pink, or deep purple. Neutral shades of creams, white, warm greys, beige, browns and taupe evolve each season but continue to be the most commercial group of colours in all areas of the market including contract and domestic markets. It is difficult, almost impossible, to describe colour with the written word but it is one of the key factors that create the impression of comfort and luxury that is such a major part of textile design.

### Co-design principles and practice

### Colour workshop

The colour session began with three visiting speakers who explained colour forecasting on a national and international scale and how buyers and retailers may interpret the trend information, as discussed within this publication Greengrass drew attention to the commercial challenges for manufacturing companies in making colour selection many months before the product is to be delivered to the retail environment It was observed that the fashion industry has subjected consumers to more than a decade of black as the predominant colour on the high street having been adopted by Punk, couture fashion, and by innovative Japanese designers. In recent years, black has replaced navy blue as a classic colour within the outdoor sports sector. This has resulted in older users being confused as to where to find interesting and flattering colours while not wishing to resort to black or beige.

In preparation for a practical co-design colour workshop, research participants had been asked to bring in examples of garments and accessories in colours and textures that they liked to wear and that they considered sympathetic to ageing complexions and hair colour. The group was unanimous in that colour is a major initial factor when selecting clothing, balanced by the importance of fit and proportion. There was a preference for marl effects and textures, to introduce a natural 'feel' to manmade fibres, with reference to colours of the countryside, of fruits, flowers, berries and lichens and natural stone tones. These were not transient choices but levels of colour that the older participants had become familiar and comfortable with and enjoyed wearing. They were keen to see such colours brought through to outdoor clothing.

Within this workshop the topic of branding arose, prompting a lively debate with the industry representatives. The discussion confirmed a major concern for the brand-led sportswear sector in that the active ageing do not wish to wear logos on the exterior of garments. When young, this generation was accustomed to labels being either in the back neck of a garment or inside the front facing. They are not happy to advertise even discrete tone-on-tone branding.

### Designing for the future

### Colour and forecasting

Colour has come to dominate many industries. The textiles and clothing industry is certainly no exception. Research work carried out by yarn and textile manufacturers, fibre producers, retail groups and trade fair organisers consistently shows that the first response by a customer, whether textile buyer or retail shopper, is to colour.

Colour forecasting is the selection of ranges of colours that are predicted for a particular product/market at a particular time in the future. Many colour forecasts are specific to particular product ranges, i.e. men's knitwear, children's leisurewear, etc., but most will show three colour groupings — pales, mediums and darks. Within these groups there are likely to be several colours referred to as classics (colours which have been accepted over a long period of time, such as camel, navy, bottle green and black). As the vast majority of consumers do not replace their car or the products in their house and their clothing every season, colour ranges for a specific season must take into account the colours of the previous seasons as well as what might be described as new 'fashion' colours. Any colour palette will normally therefore show within its pales, mediums and darks, some of the previous season's fashion colours, the new season's fashion colours and some classics.

It has been demonstrated that there are many factors that affect consumers' colour choice. With increasing consumer awareness regarding the use of colour, it is critical that companies understand these factors and how they affect their particular market. Marketers need to understand the effect that colour has on consumers and colour forecasting in order to deliver appropriate colours for their particular market. Even a slight difference in shade from what is required by the final consumer can be catastrophic to the manufacturer.

# **TEXTILE DEVELOPMENT**

### Textile Design

Textile design is the process of planning and producing a fabric's appearance and structure. Textile designers dream up designs that are woven or knitted into cloth or printed on fabric. They might suggest types of thread to weave together for a specific look and feel or create patterns that adorn a fabric surface. Textile designers might also specify a dyeing method, or the use of dyes to color fibers or fabric surfaces to achieve a desired effect.

Depending on the geographical location and period of time, every culture has its own distinct textiles with favorite fibers, patterns, and colors. The names of earliest textile designers have been lost to time, and style trends came and then slipped out of fashion, which is still true today. In this lesson, we're going to explore some of the high points of textile design history. Keep in mind that this is just an introduction, and there may be more about the different periods that you'll want to explore. Now, let's jump back in time.

### Profession textile product developer

Textile product developers innovate and perform product design of apparel textiles, home textiles, and technical textiles (e.g. agriculture, safety, construction, medicine, mobile tech, environmental protection, sports, etc.). They apply scientific and technical principles to develop innovative textile products.

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### **Personality Type**

• Artistic / Enterprising

### Knowledge

### • Health and safety in the textile industry

The requirements, rules and applications of health and safety measures in the textile industry.

### • Portfolio management in textile manufacturing

The process of managing teams and projects in textile and clothing product development.

• Research and development in textiles

Development of new concepts through the use of scientific and other methods of applied research.

### • Challenging issues in the textile industry

The efficiency aims and environmental issues posed by challenges in the textile industry.

### • Textile printing technology

Addition of colour partially, according to the designed pattern, onto textile based materials. Processes for adding coloured patterns onto textile materials using printing machines and techniques (rotary of flat bed screen printing or others, heat transfer, inkjet, etc.).

### • Textile marketing techniques

Creating, communicating and delivering value to customers of textile products and services.

### • Braiding technology

Development, manufacturing requirements, properties and evaluation of braided fabrics.

### • Textile technologies

Textile technologies to design, manufacture and evaluate the properties of textiles.

### • Nonwoven machine technology

Manufacturing of nonwoven fabrics according to specification. Development, manufacture, properties and evaluation of nonwoven fabrics.

### • Properties of fabrics

The influence of chemical composition and molecular arrangement of yarn and fibre properties and fabric structure on the physical properties of textile fabrics; the different fibre types, their physical and chemical characteristics and different material characteristics; the materials used in different processes and the effect on materials as they are processed.

### Skills

### • Draw sketches to develop textile articles

Draw sketches to develop textiles or wearing apparel by hand. They create visualisations of the motives, patterns or products in order to be manufactured.

### • Distinguish accessories

Distinguish accessories in order to determine differences among them. Evaluate accessories based on their characteristics and their application in wearing apparel manufacturing.

### • Design weft knitted fabrics

Developing structural and colour effects in weft knitted fabrics by using the weft knitting technique.

### • Decorate textile articles

Decorate wearing apparels and made up textile articles by hand or using machines. Decorate textile articles with ornaments, braided cords, golden yarns, soutaches, jewellery, and cristals.

### • Use textile finishing machine technologies

Use textile finishing machine technologies that enable the coating or laminating of fabrics.

### • Develop specifications of technical textiles

Developing specifications for fibre based technical products with functional performances.

### • Distinguish fabrics

Distinguish fabrics in order to determine differences among them. Evaluate fabrics based on their characteristics and their application in wearing apparel manufacturing.

### • Design woven fabrics

Designing and developing structural and colour effects in woven fabrics by using the weaving technique.

### • Design warp knit fabrics

Developing structural and colour effects in warp knitted fabrics by using the warp knitting technique.

### • Conduct textile testing operations

Prepare for textile testing and evaluation, gathering the test samples, conducting and recording tests, validating data and presenting results.

### • Draw sketches to develop textile articles using softwares

Draw sketches to develop textiles or wearing apparel using softwares. They create visualisations of the motives, patterns or products in order to be manufactured.

### • Measure yarn count
Be able to measure yarn length and mass to assess fineness of roving, sliver and yarn in different measuring systems. Also able to convert into the various numbering system such as tex, Nm, Ne, denier, etc.

## • Use textile technique for hand-made products

Using textile technique to produce hand-made products, such as carpets, tapestry, embroidery, lace, silk screen printing, wearing apparel, etc.

## • Maintain work standards

Maintaining standards of work in order to improve and acquire new skills and work methods.

## sales forecasting

Sales forecasting is the process of estimating future sales. Accurate sales forecasts enable companies to make informed business decisions and predict short-term and long-term performance. Companies can base their forecasts on past sales data, industry-wide comparisons, and economic trends.

It is easier for established companies to predict future sales based on years of past business data. Newly founded companies have to base their forecasts on less-verified information, such as market research and competitive intelligence to forecast their future business.

Sales forecasting gives insight into how a company should manage its workforce, cash flow, and resources. In addition to helping a company allocate its internal resources effectively, predictive sales data is important for businesses when looking to acquire investment capital.

## Sales forecasting allows companies to:

- Predict achievable sales revenue;
- Efficiently allocate resources;
- Plan for future growth.

## What is sales forecasting?

Sales forecasting is the process of estimating future revenue by predicting the amount of product or services a sales unit (which can be an individual salesperson, a sales team, or a company) will sell in the next week, month, quarter, or year. At its simplest, a sales forecast is a projected measure of how a market will respond to a company's go-to-market efforts.

## Why is sales forecasting important?

Forecasts are about the future. It's hard to overstate how important it is for a company to produce an accurate sales forecast. Privately-held companies gain confidence in their business when leaders are able to trust forecasts. For publicly-traded companies, accurate forecasts confer credibility in the market. Sales forecasting adds value across an organization. Finance, for example, relies on forecasts to develop budgets for capacity plans and hiring. Production uses sales forecasts to plan their cycles. Forecasts help sales ops with territory and quota planning, supply chain with material purchases and production capacity, and sales strategy with channel and partner strategies. These are only a few examples. Unfortunately, at many companies, these processes stay disconnected, which can produce adverse business outcomes. If information from a sales forecast isn't shared, for example, product marketing may create demand plans that don't align with sales quotas or sales attainment levels. This leaves a company with too much inventory, or too little inventory, or inaccurate sales targets—all

mistakes that hurt the bottom line. Committing to regular, quality sales forecasting can help avoid such expensive mistakes.

#### What are some benefits of having an accurate sales forecast?

An accurate sales forecast process confers many benefits. These include:

- Improved decision-making about the future
- Reduction of sales pipeline and forecast risks
- Alignment of sales quotas and revenue expectations
- Reduction of time spent planning territory coverage and setting quota assignments
- Benchmarks that can be used to assess trends in the future
- Ability to focus a sales team on high-revenue, high-profit sales pipeline opportunities, resulting in improved win rates

#### How to accurately forecast sales

To create an accurate sales forecast, follow these five steps:

- 1. Assess historical trends Examine sales from the previous year. Break the numbers down by price, product, rep, sales period, and other relevant variables. Build those into a "sales run rate," which is the amount of projected sales per sales period. This forms the basis of your sales forecast.
- 2. **Incorporate changes** This is where the forecast gets interesting. After you have your basic sales run rate, you want to modify it according to a number of changes that you see coming. For example:
  - **Pricing.** Are you changing the prices of any products? Are there competitors who may force you to modify your pricing schemes?
  - **Customers.** How many new customers do you anticipate landing this year? How many did you land the previous year? Have you hired new reps, gained quantifiable brand exposure, or increased the likelihood of gaining new customers?
  - **Promotions.** Will you be running any new promotions this year? What is the ROI on previous promotions, and how do you expect the new ones to compare?
  - Channels. Are you opening up any new channels? New locations? New territories?
  - **Product changes.** Are you introducing new products? Changing your product suite? How long did it take for previous products to gain traction in the market? Do you expect new products to act similarly?

Anticipate market trends Now is the time to project all the market events you've been tracking. Will you or your competitors be going public? Do you anticipate any acquisitions? Will there be legislation that changes how your product is received?

**Monitor competitors** You're likely doing this already, but take into account the products and campaigns of competitors, especially the major players in the space. Also check around to see if new competitors may be entering your market.

**Include business plans** Add in all of your business' strategic plans. Are you in growth mode? What are hiring projections for the year? New markets you're targeting? New marketing campaigns? How might all of these impact the forecast? Once you've quantified all of these things, build them into your forecast. You want everything to be itemized, so that you can understand the forecast in as granular a level as possible. Different stakeholders in the company will likely want to understand different aspects of the forecast, so it behoves you to be able to zoom in or out as far as needed.

## Should you do a bottom-up sales forecast or a top-down sales forecast?

In general, there are two types of sales forecasts: bottom-up forecasts and top-down forecasts. Bottom-up forecasts start by projecting the amounts of units a company will sell, then multiplying that number by the average cost per unit. You can also build in the number of locations, number of sales reps, number of on-line interactions, and other metrics. The idea behind a bottom-up sales forecast is to begin with the smallest components of the forecast, and build up from there. The advantage to a bottom-up forecast is that if any variables change (like cost per item, or number of reps); the forecast is easy to modify. It also provides fairly granular information. A top-down sales forecast starts with the total size of the market (the TAM—total addressable market), then estimates what percentage of the market the business can capture. If the size of a market is \$500 million, for example, a company may estimate that they can win 10 percent of that market, making their sales forecast \$50 million for the year. When making a sales forecast, it's important to use both of these methods. Start with a top-down method, and then use the bottom-up approach to see if your first estimate is feasible. Or do the two separately and see how well they accord. To produce the most accurate forecast, companies should perform both types of forecasts, then tweak both until they produce the same number.

#### Keys to success in sales forecasting

Improving the accuracy of your sales forecasts and the efficiency of the forecast process depends on multiple factors, including strong organizational coordination, automation, reliable data, and analytics-based methodologies. Ideally, sales forecasts should be:

- **Collaborative.** Leaders should synthesize input from a variety of sales roles, business units, and regions. Frontline sales teams can be of great value here, providing a pulse on the market you hadn't considered before.
- **Data-driven.** Predictive analytics can reduce the impact of subjectivity, which is often more backward-looking than forward-looking. Using common data definitions and baselines will foster alignment and save time.
- **Produced in real time.** Investing in real-time capability to course-correct or reforecast allows sales leaders to quickly gain insight so they can make more informed decisions. This enables them to quickly and accurately update the forecast based on demand or market changes.
- **Single-sourced, with multiple views.** Generating the forecast as a single source of data gives you great visibility into rep, region, and company performance, and helps align different business functions across the organization.
- **Improved over time.** Use the insights provided by an improved sales forecasting process to create more refined future forecasts where accuracy improves over time against a set of accuracy goals.

Companies with better forecasting processes and tools perform better than their peers because they better understand their business drivers and have the ability to shape the outcome of a sales period before that period is closed.

#### What are some key sales forecasting challenges?

It can be difficult to produce a consistently accurate sales forecast. Some of the keys to success in sales forecasting:

- Accuracy and Mistrust. When companies use spreadsheets for sales forecasting, they can run into issues with accuracy, which in turn creates a less trustworthy forecast. These issues with accuracy can be exacerbated by:
  - Poor adoption of CRM across the company, and employees not entering data in a timely manner
  - Inconsistent data across teams or salespeople not inputting complete data
  - Stakeholders across the company using different methodologies to produce their forecasts
  - Insufficient collaboration across product, sales, and finance teams. This lack of collaboration can be heightened when companies produce sales forecasts manually or using spreadsheets.

**Subjectivity.** Although producing a quality sales forecast does rely to a small degree on the forecaster making good decisions about how to use the data, in general, companies rely more on judgement and less on credible predictive analytics than they should. Companies forecasting with simple arithmetic pipeline weightings, for example, may miss the nuances of the real drivers of accuracy, which may be headcount, pricing decisions, or route-to-market points of emphasis.

**Usability.** When a sales forecast isn't generated in a way that makes it useful for stakeholders across the company, it becomes far less effective than it should be. A good forecast should produce data that's relevant to multiple teams, and understandable by them.

**Inefficiency.** Sales forecasts can be especially difficult to produce when inefficiencies are built into the forecasting process. For example, when a forecast has multiple owners, or the forecast process is not clearly spelled out with a standard set of rules, there can be disputes about how the forecast will be produced. Similarly, if inputs into the forecast are not reconciled before the forecast is produced, the forecast itself may be subject to many revisions, which can reduce trust in the forecast if versions are rolled out and then revised.

## How can a company forecast across the enterprise?

To forecast across the enterprise, a company needs different elements from each business function. Here's what different functions can contribute to the sales forecast: **Sales:** Provides the bottom-up view, using data from the CRM and PRM, building in judgment from sales leaders. Sales can manage this process through the Sales Operations function, using the right tools, and

reporting.**Finance:** Provides macro-economic guidance and works with the product teams. Finance can help integrate the forecast with their financial planning software.**Marketing:** Provides macro market guidance, especially in industries like telecom, retail, and CPG. Marketing can also provide finance teams with market data.**Supply Chain:** Provides inputs on supplies and production.**IT:** Assists sales forecasting by providing platforms, data, integration, and technical support.

#### Key Features of effective forecasting software

Best-in-class sales forecasting software should be able to immediately improve the accuracy of your forecasts and make the forecasting process more efficient. It should therefore offer the following capabilities:

- **Execute sales forecast simulations and outcomes**Make changes to drivers and execute sales forecast simulations to project future impact on sales performance.
- Analyze trends, changes, and seasonality of the sales forecast over timeDevelop timebased dashboards and key performance indicators (KPIs), such as velocity calculations, trending analytics, and seasonality fluctuations.
- **"What if" scenario modeling and analysis**Create "what if" scenarios and modeling to analyze the impact to the sales forecast if a specific business, economic, or competitive situation were to occur. Prepare for challenges that you might encounter in upcoming deal cycles.
- **Build sales forecasting calculations with familiar formulas** Apply an easy-to-use formula builder to configure sales forecast benchmarks using familiar formulas and syntax.
- Snapshot Salesforce CRM accounts and opportunities to compare period-overperiodCreate snapshots of Salesforce CRM accounts and opportunities and compare weekover-week, month-over-month, and year-over-year changes to current periods.
- **Compare forecasts based on multiple modeling techniques**Create sales forecasts based on qualitative, time series analysis and projection, and casual modeling techniques, while determining the degree of uncertainty with the sales forecast accuracy and predictability.
- **Forecast across geographies, products, and accounts** Develop sales forecasts by geographic locations, product lines, and accounts, or change any of these dimensions to analyze the sales forecast at any granularity of these hierarchies (e.g., by state/city, a specific set of product SKUs, or a group of accounts in a selected vertical).
- Analyze performance with data visualizationBuilt-in dashboards, reporting, and analytics with data visualization (charts, graphs, maps, etc.). Dashboards and reports are updated immediately. Analyze sales forecast and sales performance metrics to make better decisions with actionable insights.

#### The future of sales forecasting: Predictive analytics

Predictive analytics is already transforming many areas of business and sales forecasting is no exception. Even so, terms like "predictive analytics" and "machine learning" can still be intimidating. In a webinar, Abe Awasthi, Senior Manager at Deloitte, presented a short example that explains how predictive analytics can improve forecasting: A tech company asked Deloitte to produce a predictive model to improve sales forecast accuracy. To create their model, Deloitte leveraged the company's pipeline data from the previous few years with customer and employee names removed. Deloitte then used machine learning to extrapolate from historical trends and fill in the gaps in the data. Deloitte then used this data to build two predictive forecasting models: one calculated the probability that any given deal would close, and the other predicted the time frame in which that close would happen. When combined, these models provided highly actionable, very specific recommendations to the company's sales team: "push opportunity number five to qualify within the next 10 days or you're going to lose it!"Importantly, Deloitte was able to build these predictive forecasts in 8¬12 weeks—a timeline that could be feasible for many companies.

#### Why Ana plan for sales forecasting?

The Ana plan platform is uniquely configured to improve sales forecasting. By putting all relevant employees—salespeople, sales leaders, ops teams, finance, supply chain, marketing, and executives—on the same platform, companies can do the following:

- Increase accountability and ensure the sales team reports sales pipeline activity more accurately. Identify sales deals at risk, eliminate "sandbaggers," and reduce over commits.
- Standardize sales forecasting and pipeline management. Provide a single line of sight across the entire organization so that everyone has a view into revenue projections, sales projections, and operational insight.
- Create accurate and trusted sales forecasts. Allow functional leaders to make better and more informed decisions by providing accurate and trusted sales forecasting to all business units, including sales, finance, operations, HR, and marketing.
- Access data-driven sales benchmarking and trend analysis. Enable sales leaders to use historical and current sales performance as a benchmark to predict future sales results. Make changes to functional plans and implement these changes across all other business models.

By adopting a Connected Planning approach, bringing together people, data, and processes from across the enterprise, companies can produce an accurate sales forecast that connects teams throughout the company, keeping everyone better prepared for the future.

## **Fashion services and resources**

**Fashion industry**, multibillion-dollar global enterprise devoted to the business of making and selling clothes. Some observers distinguish between the fashion industry (which makes "high fashion") and the apparel industry (which makes ordinary clothes or "mass fashion"), but by the 1970s the boundaries between them had blurred. Fashion is best defined simply as the style or styles of clothing and accessories worn at any given time by groups of people. There may appear to be differences between the expensive designer fashions shown on the runways of Paris or New York and the mass-produced sportswear and street styles sold in malls and markets around the world. However, the fashion industry encompasses the design, manufacturing, distribution, marketing, retailing, advertising, and promotion of all types of apparel (men's, women's, and children's) from the most rarefied and expensive haute couture (literally, "high sewing") and designer fashions to ordinary everyday clothing—from couture ball gowns to casual sweatpants. Sometimes the broader term

"fashion industries" is used to refer to myriad industries and services that employ millions of people internationally.

The fashion industry is a product of the modern age. Prior to the mid-19th century, virtually all clothing was handmade for individuals, either as home production or on order from dressmakers and tailors. By the beginning of the 20th century—with the rise of new technologies such as the sewing machine, the rise of global capitalism and the development of the factory system of production, and the proliferation of retail outlets such as department stores-clothing had increasingly come to be mass-produced in standard sizes and sold at fixed prices. Although the fashion industry developed first in Europe and America, today it is an international and highly globalized industry, with clothing often designed in one country, manufactured in another, and sold in a third. For example, an American fashion company might source fabric in China and have the clothes manufactured in Vietnam, finished in Italy, and shipped to a warehouse in the United States for distribution to retail outlets internationally. The fashion industry has long been one of the largest employers in the United States, and it remains so in the 21st century. However, employment declined considerably as production increasingly moved overseas, especially to China. Because data on the fashion industry typically are reported for national economies and expressed in terms of the industry's many separate sectors, aggregate figures for world production of textiles and clothing are difficult to obtain. However, by any measure, the industry inarguably accounts for a significant share of world economic output.

The fashion industry consists of four levels: the production of raw materials, principally fibres and textiles but also leather and fur; the production of fashion goods by designers, manufacturers, contractors, and others; retail sales; and various forms of advertising and promotion. These levels consist of many separate but interdependent sectors, all of which are devoted to the goal of satisfying consumer demand for apparel under conditions that enable participants in the industry to operate at a profit.

## Textile design and production

Most fashions are made from textiles. The partial automation of the spinning and weaving of wool, cotton, and other natural fibres was one of the first accomplishments of the Industrial Revolution in the 18th century. In the 21st century those processes are highly automated and carried out by computer-controlled high-speed machinery. A large sector of the textile industry produces fabrics for use in apparel. Both natural fibres (such as wool, cotton, silk, and linen) and synthetic fibres (such as nylon, acrylic, and polyester) are used. A growing interest in sustainable fashion (or "eco-fashion") led to greater use of environmentally friendly fibres, such as hemp. Hightech synthetic fabrics confer such properties as moisture wicking (e.g., Coolmax), stain resistance (e.g., 303 High Tech Fabric Guard), retention or dissipation of body heat, and protection against fire, weapons (e.g., Kevlar), cold (e.g., Thinsulate), ultraviolet radiation (Solarweave), and other hazards. Fabrics are produced with a wide range of effects through dyeing, weaving, printing, and other manufacturing and finishing processes. Together with fashion forecasters, textile manufacturers work well in advance of the apparel production cycle to create fabrics with colours, textures, and other qualities that anticipate consumer demand.

#### Fashion design and manufacturing

Historically, very few fashion designers have become famous "name" designers, such as Coco Chanel or Calvin Klein, who create prestigious high-fashion collections, whether couture or prêt-áporter ("ready-to-wear"). These designers are influential in setting trends in fashion, but, contrary to popular belief, they do not dictate new styles; rather, they endeavour to design clothes that will meet consumer demand. The vast majority of designers work in anonymity for manufacturers, as part of design teams, adapting trendsetting styles into marketable garments for average consumers. Designers draw inspiration from a wide range of sources, including film and television costumes, street styles, and active sportswear. For most designers, traditional design methods, such as doing sketches on paper and draping fabric on mannequins, have been supplemented or replaced by computer-assisted design techniques. These allow designers to rapidly make changes to a proposed design's silhouette, fabric, trimmings, and other elements and afford them the ability to instantaneously share the proposed changes with colleagues—whether in the next room or on another continent.

#### fashion designer

Only a minuscule number of designers and manufacturers produce innovative high-fashion apparel. An even smaller number (mostly in Paris) produce haute couture. Most manufacturers produce moderate-priced or budget apparel. Some companies use their own production facilities for some or all of the manufacturing process, but most rely on separately owned manufacturing firms or contractors to produce garments to the fashion company's specifications. In the field of women's apparel, manufacturers typically produce several product lines (collections) a year, which they deliver to retailers at predetermined times of the year. Some "fast fashion" manufacturers produce new merchandise even more frequently. An entire product development team is involved in planning a line and developing the designs. The materials (fabric, linings, buttons, etc.) need to be sourced and ordered, and samples need to be made for presentation to retail buyers.

An important stage in garment production is the translation of the clothing design into a pattern in a range of sizes. Because the proportions of the human body change with increases or decreases in weight, patterns cannot simply be scaled up or down uniformly from a basic template. Pattern making was traditionally a highly skilled profession. In the early 21st century, despite innovations in computer programming, designs in larger sizes are difficult to adjust for every figure. Whatever the size, the pattern—whether drawn on paper or programmed as a set of computer instructions—determines how fabric is cut into the pieces that will be joined to make a garment. For all but the most expensive clothing, fabric cutting is accomplished by computer-guided knives or high-intensity lasers that can cut many layers of fabric at once.

The next stage of production involves the assembly of the garment. Here too, technological innovation, including the development of computer-guided machinery, resulted in the automation of some stages of garment assembly. Nevertheless, the fundamental process of sewing remains labour-intensive. This puts inexorable pressure on clothing manufacturers to seek out lowwage environments for the location of their factories, where issues of industrial safety and the exploitation of workers often arise. The fashion industry in New York City was dominated by sweatshops located on the Lower East Side until the Triangle shirtwaist factory fire of 1911 led to greater unionization and regulation of the industry in the United States. In the late 20th century China emerged as the world's largest producer of clothing because of its low labour costs and highly disciplined workforce.

Assembled garments go through various processes collectively known as "finishing." These include the addition of decorative elements (embroidery, beading); buttons and buttonholes, hooks and eyes, snaps, zippers, and other fasteners; hems and cuffs; and brand-name labels and other labels (often legally required) specifying fibre content, laundry instructions, and country of manufacture. Finished garments are then pressed and packed for shipment.

For much of the period following World War II, trade in textiles and garments was strictly regulated by importing countries, which imposed quotas and tariffs. These protectionist measures, which were intended (ultimately without success) to prevent textile and clothing production from moving from high-wage to low-wage countries, were gradually abandoned beginning in the 1980s. They were replaced by a free-trade approach, under the regulatory aegis of the World Trade Organization and other international regulatory bodies, that recognized the competitive advantage of low-wage countries but also the advantage provided to consumers in rich countries through the availability of highly affordable apparel. The advent of containerization and relatively inexpensive air freight also made it possible for production to be closely tied to market conditions even across globe-spanning distances.

Although usually not considered part of the apparel industry for trade and statistical purposes, the manufacture and sale of accessories, such as shoes and handbags, and underwear are closely allied with the fashion industry. As with garments, the production of accessories ranges from very expensive luxury goods to inexpensive mass-produced items. Like apparel manufacturing, accessory production tends to gravitate to low-wage environments. Producers of high-end accessories, especially handbags, are plagued by competition from counterfeit goods ("knockoffs"), sometimes produced using inferior materials in the same factories as the authentic goods. The trade in such imitation goods is illegal under various international agreements but is difficult to control. It costs name-brand manufacturers hundreds of millions of dollars annually in lost sales.

#### Fashion retailing, marketing, and merchandising

Once the clothes have been designed and manufactured, they need to be sold. But how are clothes to get from the manufacturer to the customer? The business of buying clothes from manufacturers and selling them to customers is known as retail. Retailers make initial purchases for resale three to six months before the customer is able to buy the clothes in-store.

Fashion marketing is the process of managing the flow of merchandise from the initial selection of designs to be produced to the presentation of products to retail customers, with the goal of maximizing a company's sales and profitability. Successful fashion marketing depends on understanding consumer desire and responding with appropriate products. Marketers use sales tracking data, attention to media coverage, focus groups, and other means of ascertaining consumer preferences to provide feedback to designers and manufacturers about the type and quantity of goods to be produced. Marketers are thus responsible for identifying and defining a fashion producer's target customers and for responding to the preferences of those customers.

Marketing operates at both the wholesale and retail levels. Companies that do not sell their own products at retail must place those products at wholesale prices in the hands of retailers, such as boutiques, department stores, and online sales companies. They use fashion shows, catalogs, and a sales force armed with sample products to find a close fit between the manufacturer's products and the retailer's customers. Marketers for companies that do sell their own products at retail are primarily concerned with matching products to their own customer base. At both the wholesale and the retail level, marketing also involves promotional activities such as print and other media advertising aimed at establishing brand recognition and brand reputation for diverse characteristics such as quality, low price, or trendiness.

Closely related to marketing is merchandising, which attempts to maximize sales and profitability by inducing consumers to buy a company's products. In the standard definition of the term, merchandising involves selling the right product, at the right price, at the right time and place, to the right customers. Fashion merchandisers must thus utilize marketers' information about customer preferences as the basis for decisions about such things as stocking appropriate merchandise in adequate but not excessive quantities, offering items for sale at attractive but still profitable prices, and discounting overstocked goods. Merchandising also involves presenting goods attractively and accessibly through the use of store windows, in-store displays, and special promotional events. Merchandising specialists must be able to respond to surges in demand by rapidly acquiring new stocks of the favoured product. An inventory-tracking computer program in a department store in

London, for example, can trigger an automatic order to a production facility in Shanghai for a certain quantity of garments of a specified type and size to be delivered in a matter of days.

By the early 21st century the Internet had become an increasingly important retail outlet, creating new challenges (e.g., the inability for customers to try on clothes prior to purchase, the need for facilities designed to handle clothing returns and exchanges) and opening up new opportunities for merchandisers (e.g., the ability to provide customers with shopping opportunities 24 hours per day, affording access to rural customers). In an era of increasingly diverse shopping options for retail customers and of intense price competition among retailers, merchandising has emerged as one of the cornerstones of the modern fashion industry.

## **Fashion shows**

Fashion designers and manufacturers promote their clothes not only to retailers (such as fashion buyers) but also to the media (fashion journalists) and directly to customers. Already in the late 19th century, Paris couture houses began to offer their clients private viewings of the latest fashions. By the early 20th century, not only couture houses but also department stores regularly put on fashion shows with professional models. In imitation of Parisian couturiers, ready-to-wear designers in other countries also began mounting fashion shows for an audience that combined private clients, journalists, and buyers. In the late 20th and early 21st centuries, fashion shows became more elaborate and theatrical, were held in larger venues with specially constructed elevated runways ("catwalks") for the models, and played an increasingly prominent role in the presentation of new fashions.

By the early 21st century, fashion shows were a regular part of the fashion calendar. The couture shows, held twice a year in Paris (in January and July) by the official syndicate of couture designers (comprising the most exclusive and expensive fashion houses), present outfits that might be ordered by potential clients but which often are intended more to showcase the designers' ideas about fashion trends and brand image. Ready-to-wear fashion shows, separately presenting both women's and men's wear, are held during spring and fall "Fashion Weeks," of which the most important take place in Paris, Milan, New York, and London. However, there are literally dozens of other Fashion Weeks internationally—from Tokyo to São Paolo. These shows, of much greater commercial importance than the couture shows, are aimed primarily at fashion journalists and at buyers for department stores, wholesalers, and other major markets. Extensively covered in the media, fashion shows both reflect and advance the direction of fashion change. Photographs and videos of fashion shows are instantaneously transmitted to mass-market producers who produce inexpensive clothing copied from or inspired by the runway designs.

#### Media and marketing

Media of all kinds are essential to the marketing of fashion. The first dedicated fashion magazines appeared in England and France in the late 18th century. In the 19th century, fashion magazines—such as the French *La Mode Illustrée*, the British *Lady's Realm*, and the American *Godey's Lady's Book*—proliferated and flourished. Featuring articles, hand-coloured illustrations (known as fashion plates), and advertisements, fashion magazines—together with other developments such as the sewing machine, department stores, and ready-to-wear clothing produced in standard sizes—played a significant role in promoting the democratization of fashion in the modern era. The development of effective and inexpensive methods of reproducing photographs in print media in the early 20th century led to the rise of fashion photography and of heavily illustrated fashion magazines such as *Vogue*. Magazine advertising rapidly became a principal marketing tool for the fashion industry.

The creation of cinema newsreels—short motion pictures of current events—and the rise of television made it possible for people all over the world to see fashion shows and to imitate the fashionable clothing worn by celebrities. The dominance of visual media continued in the Internet age, with fashion blogs emerging as an increasingly important means of disseminating fashion information.

Red-carpet events such as awards ceremonies provide an opportunity for celebrities to be photographed wearing designer fashions, thus providing valuable publicity to the designers.

### World Fashion

Most people in the world today wear what can be described as "world fashion," a simplified and very low-cost version of Western clothing, often a T-shirt with pants or a skirt, manufactured on a mass scale. However, there are also numerous smaller and specialized fashion industries in various parts of the world that cater to specific national, regional, ethnic, or religious markets. Examples include the design, production, and marketing of saris in India and of boubous in Senegal. These industries operate in parallel with the global fashion industry on a minor and localized scale.

One significant development in the field of ethno-religious dress was widespread adoption of the hijab (religiously appropriate attire) among Muslim women not only in the Middle East but throughout the Islamic world in the early 21st century. With millions of Muslim women living in numerous countries worldwide, veiling norms and styles are myriad. For some, veiling can mean a withdrawal from the vicissitudes of fashion altogether. Other women, including those for whom modest garments are obligatory in public, may wear fashionable European styles underneath their more conservative street attire. Still others have sought looks that are themselves both chic and modest. At the beginning of the 21st century the international market for modest fashions was growing. Muslim and non-Muslim designers produced a widening selection of appropriate and stylish looks, and numerous fashion blogs and magazines targeting Muslim women became available. Some designers and manufacturers confronted not only the aesthetics of modest attire but also the practical challenges associated with conservative dress, as seen in efforts to produce modest yet effective swimwear and sportswear for Muslims.

#### The Fashion System

The fashion industry forms part of a larger social and cultural phenomenon known as the "fashion system," a concept that embraces not only the business of fashion but also the art and craft of fashion, and not only production but also consumption. The fashion designer is an important factor, but so also is the individual consumer who chooses, buys, and wears clothes, as well as the language and imagery that contribute to how consumers think about fashion. The fashion system involves all the factors that are involved in the entire process of fashion change. Some factors are intrinsic to fashion, which involves variation for the sake of novelty (e.g., when hemlines have been low for a while, they will rise). Other factors are external (e.g., major historical events such as wars, revolutions, economic booms or busts, and the feminist movement). Individual trendsetters (e.g., Madonna and Diana, princess of Wales) also play a role, as do changes in lifestyle (e.g., rock and roll, hip-hop). Fashion is a complex social phenomenon, involving sometimes conflicting motives, such as creating an individual identity and being part of a group, emulating fashion leaders and rebelling against conformity. The fashion industry thrives by being diverse and flexible enough to gratify any consumer's desire to embrace or even to reject fashion ability, however that term might be defined.

## **Trend reports**

The fashion trend report is a tool to help you analyze the most current status of fashion. The trend reports are typically created by trend forecasting companies that specialize in monitoring the apparel and textile industry. They attend international fashion events, visit fashion trade shows, shop fashion boutiques, watch fashion celebrities, etc. They do all of these things so that you do not have to... They then organize the information and images into a convenient report. The only negative issue is that they do not do this out of the kindness of their hearts.

## **Consulting services**

## What Is a Consulting Firm?

A consulting firm is a business comprised of industry-specific experts who offer professional advice, guidance, and actionable solutions to **businesses** experiencing issues they can't deal with in-house. Every company is bound to have problems; consulting firms are contracted to solve them.

What does a consulting firm do?

Executives generally reach out to consulting firms to send industry-specific experts, known as consultants, to observe and analyze a company's operations. Consultants offer guidance and actionable solutions to problems the organization may be having. Consulting firms tend to have specific focuses, and companies pay them to lend their expertise on problems that can't be handled internally.

Consulting firms have a presence in virtually every industry. There are also firms specific to several different trades and practices, including finance, healthcare, advertising, engineering, architecture, **technology**, and even the public sector. Here a few examples of different kinds of consulting firms and what they do.

## **Types of Consulting Firms**

## 1. Engineering consulting firm

Engineering consultants are experts in planning, designing, and ultimately constructing different types of infrastructure and projects for both public and private clients, including governments, real estate developers, and construction firms.

The term "engineering consulting" typically encompasses practices like construction or civil engineering as opposed to services related to other types of engineering like software or hardware.

Though it's not entirely uncommon for engineering consultants to work as solo practitioners, most consulting services specific to this industry come from prominent consulting firms.

## 2. Financial consulting firm

The term "financial consultant" has more or less been replaced with the term "financial advisor." Financial advisory (or consulting, if that sounds better to you) can take on multiple meanings given the context.

The concept is often associated with providing personalized, actionable financial planning for individuals. That being said, financial advisors can also be valuable resources for entire businesses, providing insight on corporate governance, financial risk, and customer and supply chain operations.

## 3. Healthcare consulting firm

**Healthcare consulting** revolves around analyzing management practices in the healthcare industry. These kinds of firms employ experts in areas like pharmaceuticals, medical technology, healthcare payers, and delivery systems.

They can advise healthcare companies on everything from digital transformation to acquisitions and mergers to customer experience. Generally speaking, their advice comes on the business end of things. They wouldn't tell a brain surgeon how to do their job.

#### 4. Human resources consulting firm

Companies hire human resources (HR) consulting firms to help address — you guessed it — their human resource management issues. HR consultants typically fall into one of two buckets: expert resource consultants and process/people consultants.

Expert resource consultants suggest and implement solutions based on their field expertise. People/process consultants help improve company creativity to help clients find their own solutions to their problems by employing methods to improve

If a company is having trouble determining appropriate compensation for its employees, expert resource consultants would likely provide definitive figures themselves.

People/process consultants would guide that business through an organizational change and let it determine the appropriate compensation figures on its own throughout that process.

5. Political consulting firm

Political consulting firms advise and assist individual political campaigns. Their main focus tends to revolve around media messaging, including creating content like advertisements and direct mail for candidates. Their expertise generally extends beyond that aspect though.

They can offer insights into and actionable plans for voter mobilization efforts and campaign rhetoric. They also engage in other activities, including polling and opposition research.

Consulting firms are virtually everywhere — in virtually every industry — working in the interest of solving virtually every kind of problem. If your organization is confronted with an issue that's out of your league, reaching out to a consulting firm might be the way to go.

## **Fashion editing**

## **Fashion Editor:**

A fashion editor supervises the the creation, development and presentation of content for the fashion department of a magazine, Web site, newspaper or television program.

Fashion editor's work can be quite broad and consist of several responsibilities. Often the work includes supervising more junior editors and writers, as well as writing or editing articles themselves. They will formulate and style photo shoots, choose photos for publication, and choose fashion highlights and trends for publication. As their content often reaches a broad audience, they are often researching trends in the fashion industry and networking with industry professionals including photographers, designers and public relations professionals.

My background is in fashion editorial, so I will forever take a piece of those experiences with me wherever I go. Now that I am freelance though, I am able to collaborate with many different magazines as an editor, and on a greater level. Recently, I've written articles for **Real Simple** and **Guest of a Guest**, but now that I work for myself, I get to put my own unique spin and voice on the pieces I write. And my work with magazines doesn't stop there, I also now get to partner with these publications on a social media level, taking over their accounts for big events and attending special events they host, which I wouldn't have been able to do while employed by another magazine.

# The Definition of a Trade Publication

If you break down a trade publication to its most basic definition, you could call it something like "a publication that is intended for a very specific audience." Sometimes, that audience is quite large and other times, the market for a trade publication is extremely small, but trade publications thrive nonetheless.

But a better definition that offers more clarification might be a publication that features a particular industry, hobby or trade.

## Why Trade Publications Exist

Trade publications are created because there is interest within the industry for things relating to the trade. For example, people that are into playing video games might enjoy a magazine that is dedicated to them exclusively. People that buy or sell antiques might enjoy a magazine that helps them improve on recognizing or restoring antiques. The bottom line is that these publications exist because people enjoy exploring their hobbies, occupations or industries further.

## What Does a Trade Publication Include?

A trade publication will have content that appeals to the reader. There are many different types of content that a publisher can choose to include in a trade magazine. Some of the most popular types of content that you'll find in these publications include:

- Current events and news related to the industry
- The latest trends
- Useful articles that teach people something new
- Advice from experts in the industry
- Interviews with some of the top people within the trade

The content within a trade publication may come directly from people within the industry, or it may come from freelance or staff writers that have experience writing for that particular trade. One of the other things that you will consistently find within trade magazines is advertising. Industry publications are the perfect place for someone to advertise if their customers are people within that industry.

## **Trade Publications and Public Relations**

From a **public relations standpoint**, trade publications are one of the best tools that you can use to improve your company's image or gain visibility. That's because a trade publication goes out to some pretty important people within that industry, and if your company is featured, then you are being seen by some big influencers that might just spread the message. Being featured within an industry publication lends credibility to your company as a leader in that particular field.

But in order to get featured in a trade publication, you are going to have to have something valuable to offer. People subscribe to trade magazines because they are getting valuable information that will help them somehow within that industry. That means that you would have to offer something pretty significant to readers to get featured in that magazine. That's why so many companies are releasing their own **media publications**, because there is a market out there that is willing to consume **well-produced media** and a company-created publication can entertain and inform as well as strengthening a company's image and gaining customers.



#### SCHOOL OF SCIENCE AND HUMANITIES

## **DEPARTMENT OF FASHION DESIGN**

**UNIT – IV – Fashion Trend and Forecasting – SFDA1302** 

#### UNIT IV (9Hrs)

Forecasting methods- Subjective approach- Qualitative methods, Objective approach- Quantitative methods. Fashion forecasting techniques- Delphi technique, Scenario writing, Subjective approach, Timeseries forecasting. Forecast accuracy, Forecast error measures. Future of fashion forecasting. Social Responsibility & Sustainability Related to Fashion Trends and Forecasting.

## FORECASTING FUNDAMENTALS

Forecast: A prediction, projection, or estimate of some future activity, event, or

occurrence.

## **Types of Forecasts**

#### - Economic forecasts

Predict a variety of economic indicators, like money supply, inflation rates, interest rates, etc.

#### - Technological forecasts

Predict rates of technological progress and innovation.

#### - Demand forecasts

Predict the future demand for a company's products or services.

Since virtually all the operations management decisions (in both the strategic

category and the tactical category) require as input a good estimate of future

demand, this is the type of forecasting that is emphasized in our textbook and in this course

this course.

#### **TYPES OF FORECASTING METHODS**

Qualitative methods: These types of forecasting methods are based on judgments,

opinions, intuition, emotions, or personal experiences and are subjective in nature.

They do not rely on any rigorous mathematical computations.

Quantitative methods: These types of forecasting methods are based on

mathematical (quantitative) models, and are objective in nature. They rely heavily on mathematical computations.

# **OUALITATIVE FORECASTING METHODS**



# **OUANTITATIVE FORECASTING METHODS**



Model	Description		
Naïve	Uses last period's actual value as a forecast		
Simple Mean (Average)	Uses an average of all past data as a forecast		
Simple Moving Average	Uses an average of a specified number of the most recent observations, with each observation receiving the same emphasis (weight)		
Weighted Moving Average	Uses an average of a specified number of the most recent observations, with each observation receiving a different emphasis (weight)		
Exponential Smoothing	A weighted average procedure with weights declining exponentially as data become older		
Trend Projection	Technique that uses the least squares method to fit a straight line to the data		
Seasonal Indexes	A mechanism for adjusting the forecast to accommodate any seasonal patterns inherent in the data		

## TIME SERIES MODELS

# **DECOMPOSITION OF A TIME SERIES**

Patterns that may be present in a time series

Trend: Data exhibit a steady growth or decline over time.

**Seasonality:** Data exhibit upward and downward swings in a short to intermediate time frame (most notably during a year).

Cycles: Data exhibit upward and downward swings in over a very long time frame.

**Random variations:** Erratic and unpredictable variation in the data over time with no discernable pattern.

# **ILLUSTRATION OF TIME SERIES DECOMPOSITION**

Hypothetical Pattern of Historical Demand



Time



# SEASONAL COMPONENT IN HISTORICAL DEMAND



## CYCLE COMPONENT IN HISTORICAL DEMAND



Many years or decades

Time

## **RANDOM COMPONENT IN HISTORICAL DEMAND**



## **DATA SET TO DEMONSTRATE FORECASTING METHODS**

The following data set represents a set of hypothetical demands that have occurred over several consecutive years. The data have been collected on a quarterly basis, and these quarterly values have been amalgamated into yearly totals.

For various illustrations that follow, we may make slightly different assumptions about starting points to get the process started for different models. In most cases we will assume that each year a forecast has been made for the subsequent year. Then, after a year has transpired we will have observed what the actual demand turned out to be (and we will surely see differences between what we had forecasted and what actually occurred, for, after all, the forecasts are merely educated guesses).

Finally, to keep the numbers at a manageable size, several zeros have been dropped off the numbers (i.e., these numbers represent demands in thousands of units).

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Annual Demand
1	62	94	113	41	310
2	73	110	130	52	365
3	79	118	140	58	395
4	83	124	146	62	415
5	89	135	161	65	450
6	94	139	162	70	465

## **ILLUSTRATION OF THE NAÏVE METHOD**

**Naïve method:** The forecast for next period (period t+1) will be equal to this period's actual demand (At).

In this illustration we assume that each year (beginning with year 2) we made a forecast, then waited to see what demand unfolded during the year. We then made a forecast for the subsequent year, and so on right through to the forecast for year 7.

Year	Actual Demand (At)	Forecast (Ft)	Notes
1	310		There was no prior demand data on which to base a forecast for period 1
2	365	310	From this point forward, these forecasts were made on a year-by-year basis.
3	395	365	
4	415	395	
5	450	415	
6	465	450	
7		465	

# MEAN (SIMPLE AVERAGE) METHOD

**Mean (simple average) method:** The forecast for next period (period t+1) will be equal to the average of all past historical demands.

In this illustration we assume that a simple average method is being used. We will also assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300). At the end of year 1 we could start using this forecasting method. In this illustration we assume that each year (beginning with year 2) we made a forecast, then waited to see what demand unfolded during the year. We then made a forecast for the subsequent year, and so on right through to the forecast for year 7.

Year	Actual Demand (At)	Forecast (Ft)	Notes
1	310	300	This forecast was a guess at the beginning.
2	365	310.000	From this point forward, these forecasts were made on a year-by-year basis using a simple average approach.
3	395	337.500	
4	415	356.667	
5	450	371.250	
6	465	387.000	
7		400.000	

## **SIMPLE MOVING AVERAGE METHOD**

**Simple moving average method:** The forecast for next period (period t+1) will be equal to the average of a specified number of the most recent observations, with each observation receiving the same emphasis (weight).

In this illustration we assume that a 2-year simple moving average is being used. We will also assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300). Then, after year 1 elapsed, we made a forecast for year 2 using a naïve method (310). Beyond that point we had sufficient data to let our 2-year simple moving average forecasts unfold throughout the years.

	Actual Demand	Forecast	
Year	(At)	(Ft)	Notes
1	310	300	This forecast was a guess at the beginning.
2	365	310	This forecast was made using a naïve approach.
3	395	337.500	From this point forward, these forecasts were made on a year-by-year basis using a 2-yr moving average approach.
3	395 415	337.500 380.000	From this point forward, these forecasts were made on a year-by-year basis using a 2-yr moving average approach.
3 4 5	395 415 450	337.500 380.000 405.000	From this point forward, these forecasts were made on a year-by-year basis using a 2-yr moving average approach.
3 4 5 6	395 415 450 465	337.500 380.000 405.000 432.500	From this point forward, these forecasts were made on a year-by-year basis using a 2-yr moving average approach.

# **ANOTHER SIMPLE MOVING AVERAGE ILLUSTRATION**

In this illustration we assume that a 3-year simple moving average is being used. We will also assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300). Then, after year 1 elapsed, we used a naïve method to make a forecast for year 2 (310) and year 3 (365). Beyond that point we had sufficient data to let our 3-year simple moving average forecasts unfold throughout the years.

	Actual Demand	Forecast	
Year	$(A_t)$	$(F_t)$	Notes
1	310	300	This forecast was a guess at the beginning.
2	365	310	This forecast was made using a naïve approach.
3	395	365	This forecast was made using a naïve approach.
4	415	356.667	From this point forward, these forecasts were made on a year-by-year basis using a 3-yr moving average approach.
5	450	391.667	
6	465	420.000	
7		433.333	

# WEIGHTED MOVING AVERAGE METHOD

**Weighted moving average method:** The forecast for next period (period t+1) will be equal to a weighted average of a specified number of the most recent observations.

In this illustration we assume that a 3-year weighted moving average is being used. We will also assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300).

Then, after year 1 elapsed, we used a naïve method to make a forecast for year 2 (310) and year 3 (365). Beyond that point we had sufficient data to let our 3-year weighted moving average forecasts unfold throughout the years. The weights that were to be used are as follows: Most recent year, .5; year prior to that, .3; year prior to that, .2

Year	Actual Demand (At)	Forecast (Ft)	Notes
1	310	300	This forecast was a guess at the beginning.
2	365	310	This forecast was made using a naïve approach.
3	395	365	This forecast was made using a naïve approach.

4	415	369.000	From this point forward, these forecasts were made on a year-by-year basis using a 3-yr wtd. moving avg. approach.
5	450	399.000	
б	465	428.500	
7		450.500	

## **EXPONENTIAL SMOOTHING METHOD**

**Exponential smoothing method:** The new forecast for next period (period t) will be calculated as follows:

New forecast = Last period's forecast +  $\Box$  (Last period's actual demand – Last period's forecast)

(this box contains all you need to know to apply exponential smoothing)

 $F_t = F_{t-1} + \alpha(A_{t-1} - F_{t-1})$  (equation 1)

 $F_t = \alpha A_{t-1} + (1-\alpha)F_{t-1}$  (alternate equation 1 - a bit more user friendly)

The exponential smoothing method only requires that you dig up two pieces of data to apply it (the most recent actual demand and the most recent forecast).

An attractive feature of this method is that forecasts made with this model will include a portion of every piece of historical demand. Furthermore, there will be different weights placed on these historical demand values, with older data receiving lower weights. At first glance this may not be obvious, however, this property is illustrated on the following page.

#### **DEMONSTRATION: EXPONENTIAL SMOOTHING INCLUDES ALL PAST DATA**

Note: the mathematical manipulations in this box are not something you would ever have to do when applying exponential smoothing. All you need to use is equation 1 on the previous page. This demonstration is to convince the skeptics that when using equation 1, all historical data will be included in the forecast, and the older the data, the lower the weight applied to that data.

To make a forecast for next period, we would use the user friendly alternate equation 1:  $F_t = \Box A_{t-1} + (1-\Box)F_{t-1}$ 

(equ

#### ation 1)

When we made the forecast for the current period (Ft-1), it was made in the following fashion:  $F_{t-1} = \Box A_{t-2} + (1-\Box)F_{t-2}$  (equation 2) If we substitute equation 2 into equation 1 we get the following:  $F_t = \Box A_{t-1} + (1-\Box)[\Box A_{t-2} + (1-\Box)F_{t-2}]$ 

Which can be cleaned up to the following:  $F_t = \Box A_{t-1} + \Box (1-\Box)A_{t-2} + (1-\Box)^2 F_{t-2} \text{ (equation 3)}$  We could continue to play that game by recognizing that  $F_{t-2} = \Box A_{t-3} + (1-\Box)F_{t-3}$  (equation 4) If we substitute equation 4 into equation 3 we get the following:

 $Ft = \Box At-1 + \Box (1-\Box)At-2 + (1-\Box)^{2}[\Box At-3 + (1-\Box)Ft-3]$ 

Which can be cleaned up to the following:  $Ft = \Box At-1 + \Box (1-\Box)At-2 + \Box (1-\Box)^2At-3 + (1-\Box)^3Ft-3$ 

If you keep playing that game, you should recognize that  $F_t = \Box A_{t-1} + \Box (1-\Box)^2 A_{t-2} + \Box (1-\Box)^2 A_{t-3} + \Box (1-\Box)^3 A_{t-4} + \Box (1-\Box)^4 A_{t-5} + \Box (1-\Box)^5 A_{t-6} \dots \dots \dots$ 

As you raise those decimal weights to higher and higher powers, the values get smaller and smaller

#### EXPONENTIAL SMOOTHING ILLUSTRATION

In this illustration we assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300). Then, for each subsequent year (beginning with year 2) we made a forecast using the exponential smoothing model. After the forecast was made, we waited to see what demand unfolded during the year. We then made a forecast for the subsequent year, and so on right through to the forecast for year 7.

Year	Actual Demand (A)	Forecast (F)	Notes
1	310	300	This was a guess, since there was no prior demand data.
2	365	301	From this point forward, these forecasts were made on a year-by-year basis using exponential smoothing with $\Box = .1$
3	395	307.4	
4	415	316.16	
5	450	326.044	
6	465	338.4396	
7		351.09564	

### This set of forecasts was made using an $\square$ value of .1

#### A SECOND EXPONENTIAL SMOOTHING ILLUSTRATION

In this illustration we assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300). Then, for each subsequent year (beginning with year 2) we made a forecast using the exponential smoothing model. After the forecast was made, we waited to see what demand unfolded during the year. We then made a forecast for the subsequent year, and so on right through to the forecast for year 7.

	Actual Demand (A)	Forecast (F)	
Year		1 01000000 (1)	Notes
1	310	300	This was a guess, since there was no prior demand data.
2	365	302	From this point forward, these forecasts were made on a year-by-year basis using exponential smoothing with $\Box = .2$

This set of forecasts was made using an  $\Box$  value of .2

3	395	314.6	
4	415	330.68	
5	450	347.544	
6	465	368.0352	
7		387.42816	

## A THIRD EXPONENTIAL SMOOTHING ILLUSTRATION

In this illustration we assume that, in the absence of data at startup, we made a guess for the year 1 forecast (300). Then, for each subsequent year (beginning with year 2) we made a forecast using the exponential smoothing model. After the forecast was made, we waited to see what demand unfolded during the year. We then made a forecast for the subsequent year, and so on right through to the forecast for year 7.

Year	Actual Demand (A)	Forecast (F)	Notes
1	310	300	This was a guess, since there was no prior demand data.
2	365	304	From this point forward, these forecasts were made on a year-by-year basis using exponential smoothing with $\Box = .4$
3	395	328.4	
4	415	355.04	
5	450	379.024	
6	465	407.4144	
7		430.44864	

## This set of forecasts was made using an $\square$ value of .4

## MEASURING FORECAST ACCURACY

**Mean Forecast Error (MFE):** Forecast error is a measure of how accurate our forecast was in a given time period. It is calculated as the actual demand minus the forecast, or

Et = At - Ft

Forecast error in one time period does not convey much information, so we need to look at the accumulation of errors over time. We can calculate the average value of these forecast errors over time (i.e., a **Mean Forecast Error**, or **MFE**).Unfortunately, the accumulation of the Et values is not always very revealing, for some of them will be positive errors and some will be negative. These positive and negative errors cancel one another, and looking at them alone (or looking at the MFE over time) might give a false sense of security. To illustrate, consider our original data, and the accompanying pair of hypothetical forecasts made with two different forecasting methods.

Year	Actual Demand At	Hypothetical Forecasts Made With Method 1 Ft	Forecast Error With Method 1 At - Ft	Hypothetical Forecasts Made With Method 2 Ft	Forecast Error With Method 2 At - Ft
1	310	315	-5	370	-60
2	365	375	-10	455	-90
3	395	390	5	305	90
4	415	405	10	535	-120
5	450	435	15	390	60
6	465	480	-15	345	120
Accumul	ated Forecast	Errors	0		0
Mean Forecast Error, MFE			0/6 = 0		0/6 = 0

Based on the accumulated forecast errors over time, the two methods look equally good. But, most observers would judge that Method 1 is generating better forecasts than Method 2 (i.e., smaller misses)

## MEASURING FORECAST ACCURACY

**Mean Absolute Deviation (MAD):** To eliminate the problem of positive errors canceling negative errors, a simple measure is one that looks at the absolute value of the error (size of the deviation, regardless of sign). When we disregard the sign and only consider the size of the error, we refer to this deviation as the absolute deviation. If we accumulate these absolute deviations over time and find the average value of these absolute deviations, we refer to this measure as the mean absolute deviation (MAD). For our hypothetical two forecasting methods, the absolute deviations can be calculated for each year and an average can be obtained for these yearly absolute deviations, as follows:

		Hypothetical	Forecasting M	Iethod 1	Hypothetical Forecasting Method 2			
	Actual Demand		Forecast	Absolute		Forecast	Absolute	
		Forecast Ft	Error	Deviation	Forecast Ft	Error	Deviation	
Year	ar		At - Ft	At - Ft		At - Ft	At - Ft	
1	310	315	-5	5	370	-60	60	
2	365	375	-10	10	455	-90	90	

3	395	390	5	5	305	90	90
4	415	405	10	10	535	-120	120
5	450	435	15	15	390	60	60
6	465	480	-15	15	345	120	120
	Total Abs	olute Devia	tion	60			540
	Mean Abs	solute Devia	tion	60/6=10			540/6=90

The smaller misses of Method 1 has been formalized with the calculation of the MAD. Method 1 seems to have

provided more accurate forecasts over this six year horizon, as evidenced by its considerably smaller MAD.

#### MEASURING FORECAST ACCURACY

**Mean Squared Error (MSE):** Another way to eliminate the problem of positive errors canceling negative errors is to square the forecast error. Regardless of whether the forecast error has a positive or negative sign, the squared error will always have a positive sign. If we accumulate these squared errors over time and find the average value of these squared errors, we refer to this measure as the mean squared error (MSE). For our hypothetical two forecasting methods, the squared errors can be calculated for each year and an average can be obtained for these yearly squared errors, as follows:

		Hypothetical	l Forecasting	Method 1	Hypothetica	Hypothetical Forecasting Method 2			
Year	Actual Demand At	Forecast Ft	Forecast Error At - Ft	Squared Error (At - Ft) <sup>2</sup>	Forecast Ft	Forecast Error At - Ft	Squared Error (At - Ft) <sup>2</sup>		
1	310	315	-5	25	370	-60	3600		
2	365	375	-10	100	455	-90	8100		
3	395	390	5	25	305	90	8100		
4	415	405	10	100	535	-120	14400		
5	450	435	15	225	390	60	3600		
6	465	480	-15	225	345	120	14400		
	Total Squ	ared Error		700			52200		
	Mean Squ	ared Error		700/6 =	_		52200/6 =		
				116.67			8700		

Method 1 seems to have provided more accurate forecasts over this six year horizon, as evidenced by its considerably smaller MSE.

The Question often arises as to why one would use the more cumbersome MSE when the MAD calculations are a bit simpler (you don't have to square the deviations). MAD does have the advantage of simpler calculations. However, there is a benefit to the MSE method. Since this method squares the error term, large errors tend to be magnified. Consequently, MSE places a higher penalty on large errors. This can be useful in situations where small forecast errors don't cause much of a problem, but large errors can be devastating.

## MEASURING FORECAST ACCURACY

**Mean Absolute Percent Error (MAPE):** A problem with both the MAD and MSE is that their values depend on the magnitude of the item being forecast. If the forecast item is measured in thousands or millions, the MAD and MSE values can be very large. To avoid this problem, we can use the MAPE. MAPE is computed as the average of the absolute difference between the forecasted and actual values, expressed as a percentage of the actual values. In essence, we look at how large the miss was relative to the size of the actual value. For our hypothetical two forecasting methods, the absolute percentage error can be calculated for each year and an average can be obtained for these yearly values, yielding the MAPE, as follows:

		Hypothetica	l Forecasting	g Method 1	Hypothetica	Hypothetical Forecasting Method 2			
	Actual Demand		Forecast	Absolute		Forecast	Absolute		
		Forecast Ft	Error	% Error	Forecast Ft	Error	% Error		
Year			At - Ft	100 At -		At - Ft	100 At -		
				Ft∥/At			Ft /At		
1	310	315	-5	1.16%	370	-60	19.35%		
2	365	375	-10	2.74%	455	-90	24.66%		
3	395	390	5	1.27%	305	90	22.78%		
4	415	405	10	2.41%	535	-120	28.92%		
5	450	435	15	3.33%	390	60	13.33%		
6	465	480	-15	3.23%	345	120	17.14%		
	Total Absolute % Error			14.59%			134.85%		
				14.59/6=	-		134.85/6=		
	Mean Abs	solute % Error		2.43%			22.48%		

Method 1 seems to have provided more accurate forecasts over this six year horizon, as evidenced by the fact that the percentages by which the forecasts miss the actual demand are smaller with Method 1 (i.e., smaller MAPE).

## **ILLUSTRATION OF THE FOUR FORECAST ACCURACY MEASURES**

Here is a further illustration of the four measures of forecast accuracy, this time using hypothetical forecasts that were generated using some different methods than the previous illustrations (called forecasting methods A and B; actually, these forecasts were made up for purposes of illustration). These calculations illustrate why we cannot rely on just one measure of forecast accuracy.

	Hypothe	Hypothetical Forecasting Method A					Hypothetical Forecasting Method B				
Actual Deman d At	Forecas t Ft	Forecast Error At - Ft	Absolute Deviatio n  At - Ft	Squared Deviatio n (At - Ft) <sup>2</sup>	Abs. % Error  At- Ft /At	Forecast Ft	Forecast Error At - Ft	Absolute Deviatio n  At - Ft	Squared Deviatio n (At - Ft) <sup>2</sup>	Abs. % Error  At- Ft /At	
310	330	-20	20	400	6.45%	310	0	0	0	0%	
365	345	20	20	400	5.48%	365	0	0	0	0%	
395	415	-20	20	400	5.06%	395	0	0	0	0%	
415	395	20	20	400	4.82%	415	0	0	0	0%	
450	430	20	20	400	4.44%	390	60	60	3600	13.33%	
465	485	-20	20	400	4.30%	525	-60	60	3600	12.90%	
		0	120	2400	30.55%	Totals	0	120	7200	26.23%	
		MFE = 0/6 = 0	MAD = 120/6 = 20	MSE = 2400/6 = 400	MAPE= 30.55/6 5.09%		MFE = 0/6 = 0	MAD = 120/6 = 20	MSE = 7200/6 = 1200	MAPE= 26.23/6 4.37%	
	Actual Deman d At 310 365 395 415 450 465	Actual Deman dForecas t FtAt310330365345395415415395450430465485	Hypothetical For Actual Deman dForecas Forecas t FtForecast Error At310330-2036534520395415-204153952045043020465485-20MFE = $0/6 =$	Hypothetical Forecasting IActual Deman dForecast Forecast t FtForecast Error At - FtDeviatio n IAt - Ft310330-20203653452020395415-202041539520204504302020465485-2020MAD = $0/6 =$ 020	Hypothetical Forecasting Method AActual Deman dForecas Forecas t FtForecas Error At - FtForecas Deviatio n $ At - Ft $ Squared Deviatio n $ At - Ft $ AtForecas t FtForecas At - FtImage: Colorado on the colorado on th	Hypothetical Forecasting Method AActual Deman dForecas Forecas t FtForecast Absolute Error At - FtSquared Deviatio Deviatio n hAbs. % Error At- FtAtForecast At - FtDeviatio n (At - Ft)At- (At - Ft)2Ft/At310330-20204006.45%36534520204005.48%395415-20204005.06%41539520204004.82%45043020204004.30%465485-20204004.30%MFE = 0/6 =MAD = 120/6 =MSE = 2400/6 =MAPE= 30.55/60204005.09%	Hypothetical Forecasting Method AHypothetical Forecasting Method AActual Deman dForecast Freecast t FtForecast At - FtAbsolute Deviatio nSquared Deviatio Deviatio nAbs. % Error (At- Ft)/AtForecast Forecast Ft310330-20204006.45%31036534520204005.48%365395415-20204005.06%39541539520204004.82%41545043020204004.30%5250120240030.55%TotalsMFE = 0/6 =MAD = 120/6 =MSE = 2400/6 =MAPE= 30.55/6Totals	Actual Deman d Forecast Ft Forecast At Forecast Forecast At Forecast Ft Forecast At Ft At </td <td>Hypothetical Forecasting Method A Hypothetical Forecasting I   Actual Deman d Forecast Absolute Squared Abs. % Fore Abs. % Fore Cast Absolute Fore Cast Absolu</td> <td>Hypothetical Forecasting Method A Hypothetical Forecasting Method B   Actual Deman d Forecast Absolute Squared Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio n Forecast Absolute Squared Abs. %   At Ft Forecast Absolute N Ft At - Ft Deviatio Deviatio Deviatio N Forecast Attack Forecast Absolute Squared Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio N Forecast Attack Squared Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio N Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio N   At Ft R At - Ft N R Ft Squared Attack Forecast Attack Forecast Attack Squared Attack   310 330 -20 20 400 6.45% 310 0 0 0   365 345 20 20 400 5.48% 365 0 0 0   415 395 20 20 400 4.82%&lt;</td>	Hypothetical Forecasting Method A Hypothetical Forecasting I   Actual Deman d Forecast Absolute Squared Abs. % Fore Abs. % Fore Cast Absolute Fore Cast Absolu	Hypothetical Forecasting Method A Hypothetical Forecasting Method B   Actual Deman d Forecast Absolute Squared Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio n Forecast Absolute Squared Abs. %   At Ft Forecast Absolute N Ft At - Ft Deviatio Deviatio Deviatio N Forecast Attack Forecast Absolute Squared Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio N Forecast Attack Squared Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio N Deviatio Deviatio Deviatio Deviatio Deviatio Deviatio N   At Ft R At - Ft N R Ft Squared Attack Forecast Attack Forecast Attack Squared Attack   310 330 -20 20 400 6.45% 310 0 0 0   365 345 20 20 400 5.48% 365 0 0 0   415 395 20 20 400 4.82%<	

You can observe that for each of these forecasting methods, the same MFE resulted and the same MAD resulted. With these two measures, we would have no basis for claiming that one of these forecasting methods was more accurate than the other. With several measures of accuracy to consider, we can look at all the data in an attempt to determine the better forecasting method to use. Interpretation of these results will be impacted by the biases of the decision maker and the parameters of the decision situation. For example, one observer could look at the forecasts with method A and note that they were pretty consistent in that they were always missing by a modest amount (in this case, missing by 20 units each year). However, forecasting method B was very good in some years, and extremely bad in some years (missing by 60 units in years 5 and 6).

That observation might cause this individual to prefer the accuracy and consistency of forecasting method A. This causal observation is formalized in the calculation of the MSE. Forecasting method A has a considerably lower MSE than forecasting method B. The squaring magnified those big misses that were observed with forecasting method B. However, another individual might view these results and have a preference for method B, for the sizes of the misses relative to the sizes of the actual demand are smaller than for method A, as indicated by the MAPE calculations.

# SUSTAINABILITY TRENDS FOR APPAREL AND FASHION INDUSTRY

In this fast-paced world, sustainability has taken a back-seat in numerous industry. Apparel & Fashion is one of them. Everyone is chasing fashion so blindly that we often ignore its dark spots on the environment. Fashion is all about choices – *choices that you make for yourself and for our mother earth.* 

According to a report by MarketLine, the global apparel industry has been growing at a yearly rate of 4.78% yearly since 2011. Now the sales value of apparel and fashion in the year 2017 was 1.4 trillion dollars. There's no sign to slow down the growing market of apparel and fashion as the market is projected to experience 5.91% yearly growth over the next three years.

*By 2020*, the market value of apparel and fashion is expected to reach a mind-boggling *1.65 trillion* sales in US dollars worldwide. And so, it's the waste. The more we buy, the more we discard.

And then, what happens to the discarded clothes?  $4/5^{th}$  go into the waste disposal stream and  $1/5^{th}$  goes into recycling and sorting streams.

"57% of all discarded clothing ends up in landfill".

While brands and industry leaders are all set with their advance sustainability strategies. Here are 5 trends embracing sustainability like anything.

Before I start, I would like to emphasize on the baseline of sustainable fashion.

*"Beautiful Fashion Shouldn't Cost us Earth" – Greenpeace* 

1. Do More with Less:

Your wardrobe doesn't need to be overflowed with clothes to give the best of your look. All you need to do is the streamline the wardrobe and explore more to wear with less clothes. The process of streamlining your clothes starts with streamlining your choice. With each piece that you plan to buy, look for the alternate options to wear it. *Mix-and-match* can do much better than you can imagine, and moreover, it will give you an exclusive look every time.

And don't feel embarrassed to repeat clothes. When *Mark Zuckerberg can wear his grey t-shirt religiously*, why can't you? And when you have much more important thing to focus, *fashion becomes frivolous*.

So, keep your wardrobe capsule enough to grab and go!

"Wear your values more than your dress".

You may also like : Why Fashion Circularity is Important for sustainability?

2. Say "Hi" to Vintage fashion:

Do you know "*Thrifting fashion*" can make you stand out? No, I'm not kidding. Seriously, you can trust thrift store, garage sale, flea market to get a stand out style. Vintage fashion is driving people of all generation crazy. Shoppers are flaunting vintage fashion flawlessly in their style.

No fashion is old, in recent decades vintage fashion has become one of the trendiest fashion among all generations. In the era where newer is better, crazy shoppers are choosing to wear blatantly outdated outfits seems counterintuitive.

The vintage style begins with merging 1920's fashion in today's fashion. And fashion becomes trendier than ever.

Ask your parents about the fashion of their time, find it and flaunt their fashion in your style.

"Fashion is old until you don't bring it back with style".

3. Second-hand: The latest trend:

Today's generation is chasing second-hand clothing like ever before. Currently, the fashion industry is driven by two major factors – firstly, the growing demand for clothing and secondly, less negative impact on the environment. Considering these two factors, second-hand clothing is the best way to make your fashion more sustainable.

No brand-new clothing can be more sustainable than second-hand clothing. Gone are the days, where second-hand was barely an option for people. Now, it's becoming the choice. *Smart shoppers are making their choice smarter and more sustainable.* 

Moreover, second-hand clothing is more *original, comfortable, durable, and not to forget pocketfriendly.* If you haven't started with second-hand shopping yet, join #second hand september to *make your fashion more sustainable and stylish.* 

"Pick second-hand clothing without any doubt and wear it with pride."

#### Read more: Second-Hand Clothing: The New Trend

4. Recycling and Upcycling:

What if I tell you that *using new fabrics is getting old*? No, I'm not kidding. New fabrics are no more attracting smart shoppers. As consumers are becoming more environmentally-conscious – Recycling and Upcycling is the newest of trends.

We should know what we consume and how can we consume it even better. Consumers need to understand the way apparels are transformed or re-processed. Recycling can reduce the consumption of energy and raw materials used in manufacturing new clothes. And for sustainability, reusing before recycling is even better.

Upcycling is using discarded materials to create a *high-quality product*. This newest trend can reduce cloth and textile waste by reusing deadstock or gently used fabric to create new apparels. It can be done by using pre-consumer or post-consumer waste or a combination of the two.

"Fashion is more about HOW we use than WHAT we use."

5. Local is Luxurious:

When it comes to sustainability, the question is *who is more luxurious – big brands or small brands*? Sustainability is a resolution now and brands who are not taking is seriously are falling behind. No matter- how big or small you are as a brand. *If you are ignoring sustainability, shoppers will ignore you.* 

According to a report by CGS survey, 68% of consumers prefer sustainability-conscious brands, 28% said sustainability ethical practices will make them brand loyal, and one-third of consumers are willing to pay up to 25% more than the original price for a sustainable product.

That's the reason small brands are all set to give tough competition to big brands with their sustainable initiatives. Along with that, the other factors driving the growth of local sustainable brands are transparency, education, and clear branding.

"Sustainable brands are more powerful than big brands."

#### All That Matter:

Sustainability has become an inherent part of brands, retailers, and consumers. Shopper and sellers both are getting smarter day-by-day to embrace sustainability.

Today's shoppers are more conscious about the sustainability contribution of their picks. They are choosing sustainable fashion over any other. *Young and mature brands are embracing sustainability to earn consumers loyalty.* 

According to industry experts, *sustainability is the only future of fashion* that's going to stay till the end.



## SCHOOL OF SCIENCE AND HUMANITIES

**DEPARTMENT OF FASHION DESIGN** 

**UNIT – V – Fashion Trend and Forecasting – SFDA1302** 

#### UNIT V (9Hrs)

Colour forecasting- Steps in Colour forecasting - Colour forecast reports. Dimensions of Colour, Colours in Marketing, Consumers and the Psychology of Colours. Forecasting with Colour Cycles, Colour Research, Sources for Colour Ideas and Palettes.

## **Colour forecasting**

#### **Defining color forecasting**

Color forecasting is the practice of predicting the colors and color stories that consumers will want to purchase in the near future. And it's just not in the fashion realm where color is king: manufacturers in the automotive, home décor, consumer goods, materials, and even food industries use color forecasting.

Professionals from all corners of the globe harness the power of their collective knowledge to predict which colors will be "in" two years from now.

Companies use this wisdom for smarter design. They use color forecasting in packaging, signage, product design, and more. It informs the way companies talk to their customers, all without saying a word. Color forecasting gives people the power to communicate a mood or feeling that's relevant to how consumers feel at a point in time. It's a powerful strategy that makes messaging more effective.

Although most people don't give color a second thought, it can make or break a product, no matter the niche or industry.

#### Why color forecasting matters

Color forecasting benefits both companies and consumers

Color forecasting significantly influences product development. Instead of feeling sideswiped by unexpected changes in consumer taste, color forecasting lets companies plan ahead of fads. They have more time to purposely create a better product, which means happier customers and more revenue.

Because color forecasting is done several years in advance, it lets companies offer their products to the right people, at the right time, with the best possible messaging. They're able to meet buyers' expectations with smarter design and more appealing features.

Most companies don't offer a single product; they have a slew of offerings that give their customers more choice. Color forecasting empowers companies with the color directions needed to design complementary products and services.

For example, Samsung might use color forecasting to look at popular color palettes for the year 2022. Let's say the color palette is called "Fiery Dusk," which was designed from the worldwide obsession with space exploration and Mars missions.

Samsung would use the colors in this palette to design phones, washers, refrigerators, and even smart home devices. Their products would appeal more to customers by evoking a mood of excitement, adventure, and innovation thanks to the color palette.

Color forecasting isn't just about colors: it evokes a collective mood and state of being, which can be shared through the products we buy.
Going on the previous example, the Fiery Dusk palette gives Samsung a competitive edge over companies that don't use color forecasting. Think about it: If Joanna is buying a phone in 2022, is she going to be drawn to a boring white phone, or a sleek and innovative Samsung phone? Maybe she'll be drawn to the white phone for a variety of other reasons, like her budget, but color forecasting makes Joanna stop in her tracks and evaluate the Samsung phone over other options. Companies significantly benefit from color forecasting because they can give customers what they want without the guesswork.

Forecasting helps companies with their bottom line, no matter the industry. It also has a great benefit for consumers, too. If baby blue is the en vogue color, chances are you're going to look for products in that color. You'll be able to buy a computer, shoes, socks, coffee mugs, pens, and even cars in that color. And it's all thanks to smart color forecasting. It's about giving buyers the products they love to show the mood of the times.

#### How forecasting works

It sounds like an impossible dream to predict the colors that the world will love in a few years. How can you capture a sentiment from thousands of people – and convert it into a color? You'd do better just to list colors and grab them out of a hat, right?

#### Wrong!

Color forecasting is comprised of all-important research, science, and testing. It's both a highly technical practice and an art.

Designers and color experts meet to collaborate on future color trends. They use research from field reports, consumer surveys, and product split tests as a quantitative basis as their starting point.

From there, color forecasting becomes more of an art. Color designers delve into tradeshow research, news media, economic temperature, POP culture, and more to support emerging color stories two years ahead. They create mood boards, which are a collection of images, words, or art that evoke a certain emotion supporting the emerging color's story. Several color stories reveal themselves during the research process. Once stories are discussed and agreed upon, colors and color names are selected as color directions that support the story.

Once designers agree on the color directions, they're used to make the all-important product decisions. Color, Materials, and Finishes (CMF) designers go a step further, creating certain finishes that complete their color stories, which they can use during the product design phase. For example, if designers picked royal purple as a popular color, they might assign "rounded edges" and "matte texture" as important attributes of their product design.

#### The future of color forecasting.

Color forecasting has existed in some form since the early 1800s. It started off simply, with books and dissertations on the nature of certain colors and their psychological impact, and the science of color. Color forecasting has now expanded into a critical communication tool that color design professionals use to speak to the world around us.

Or, to put it more accurately, color forecasting helps us reflect the future state of the world, celebrating both its flaws and beauty. As more companies flock to the online space, color forecasting will continue to be a necessity for reaching the hearts of millions through better communication.

#### 3 basic steps for effective fashion forecasting

Written by trend forecaster and designer Geraldine Wharry, known for her Future Trend consultancy based in London.

To successfully build trend forecasting into your work process, the methodology requires steps. I have listed three basic steps in chronological order with tangible stopping points. Take the below workflow, build it into your practice and then shape it as the fashion world's needs evolve.

# Step 1: Hunt

Trend experts search and document trends as they surface. They use a mixture of intuition and research. New developments in fashion, design, arts and culture, colour, consumer behaviour, architecture, materials are monitored, as well as the latest in politics, business, science and technology.

## The method for Step 1:

- Key messages emerge.
- Review your key ideas and update them with new findings. Discuss with other key experts/ brainstorm.
- See what links and patterns are emerging and take initial notes or write key words as you start an initial mood board.
- Then start a second round of research where you need more information or feel you are missing facts.
- Hit your stopping point for your pre-edit once you feel you have researched your topic or market full circle.
- You have reached a place where you are confident you have researched your topic 360 degrees and can back up your trend forecast with facts and intelligence as well as intuition.
- You are now ready to streamline your research to the essential messages.
- What you don't end up using can be saved for other reports or future season.

## **Step 2: Identify**

The research is edited into key themes. Aesthetic and product trends emerge and are carefully analysed and discussed. This forms what is called Macro Trends or Micro trends depending on how far ahead of time the prediction is set. These are the drivers that will influence design businesses from one to two years in advance, at times more depending on the industry.

The method for Step 2:

- Content, visuals and facts have been grouped into key concepts.
- This could also be colour group, product, concept, fabric.
- These groups are organized coherently and respect your viewpoint and message consistently.
- And if the results of your findings are very diverse, then explain and back up why.
- Keep your images and folders organised as trend research compiled means a large amount of content management.
- Make sure you have saved the credits of your content and fact check.
- Keep an extras folder for images you are not certain of.

## **Step 3: Gather**

You have assessed your product direction and matched it to your client's/ audience's need and delivered actionable trend direction.

Once the key trends have been identified, it is time to show how to apply them to design and product collections specific to womenswear, menswear, childrenswear, sports, accessories and more, with detailed direction on colour, key items, design details, textiles and graphics.

#### The method for Step 3:

These are the questions you must have answered:

- Which key products/ touch points have you addressed?
- What problem(s) are you solving for your client/ audience?
- What is the seasonal preference or time relevance?
- Opportunities for differentiation and/or parity
- What are the key product categories?
- What are the opportunities for updates for best sellers or core items?
- What are the opportunities for innovation?

# **The Colour Forecasting And It's Process**

# Introduction

The colour forecasting process is one of great complexity and very much an intuitive one. As yet, little information exists about its methodology, even though the process is considered to be a major driving force of the fashion and textile industry.

Colour forecasting is a fundamental part of a collective process known as fashion forecasting or trend prediction, where individuals or teams attempt to accurately forecast the colours, fabrics and styles of fashionable garments and accessories that consumers will purchase in the near future, approximately two years ahead.

The process of colour forecasting is basically one of collecting, evaluating, analysing and interpreting data to anticipate a range of colours desirable by the consumer, using a strong element of intuition, inspiration and creativity.

A dichotomy exists around opinions as to whether or not the forecaster predicts trends or merely creates them. Either way, a process has evolved over a period of time which has, in more recent decades, become increasingly complex. So much so that the secondary resource material readily available to the fashion student rarely offers more than a brief outline of the concept, the tools and the basic methodology involved in the colour and fashion forecasting process.

The process of colour and fashion forecasting has become a more integral part of the roles of many within the industry.Designers, range developers, sourcing personnel, buyers and merchandisers – and especially those who specialise in trend prediction for the purpose of

selling their prediction packages to the industry – all use the current forecasting system. It is becoming increasingly important to clarify this process, both for those currently using the system and for the newcomer to forecasting, in order to improve forecasting.

While fashion forecasting incorporates all aspects of the design of garments and accessories, colour is a significant factor for the consumer when making a purchasing decision.

It is therefore considered that the colour forecasting process is a worthwhile subject to be investigated and further understood in its own right.

Colour forecasting is a specialist sector activity. This specialist sector is a service that makes use of the colour forecasting process. The information is compiled into trend prediction packages and sold to the fashion and textile industry.

Personnel within the industry use this information for direction, suggestion and as a source of inspiration. They then use the same process - or a very similar one - to develop their own company's colour range.

Manufacturers use the prediction packages as one source of data together with other data collected. They then apply the colour forecasting process, or a version of it, to formulate their own seasonal colour ranges for their products to sell to the retail sector. The retailers may also subscribe to the colour forecasting services, purchasing the prediction packages to use as a source of inspiration to assist them to formulate their colour ranges

Consumers use a process of decision making when selecting a garment to purchase. Colour preferences are an extremely influential aspect taken into consideration. Successful sales reflect the effectiveness of the colour decisions that were made throughout the industry.

The concept of forecasting came about through the development and growth of the fashion and textile industry to enable manufacturers to produce end products that would create sales on the high street. By the latter half of the twentieth century, a greater need had developed for more accurate information to be readily available to all sectors of the industry, from fibre, yarn and fabric manufacturers, through to the garment manufacturers and retailers – collectively known as the fashion and textile industry. As the industry eveloped globally and consumer lifestyles became more varied, so the process of collecting the necessary data for forecasting became increasingly diverse and complex. Seasonal colours have become a powerful driving force of fashion today. The colour forecasting service was developed to fill a communication gap between the primary market manufacturers and the consumer, recognising the increasing complexities of forecasting with advances in marketing strategies. The service was established to deal with the problem of anticipating the colour demand/preferences of the consumer prior to the industry's production time plan (lead time), thereby unburdening manufacturers of this process. While the concept of forecasting was originally for the primary market sector, selling information to the secondary and tertiary market sectors increased the revenue for

the service sector and influenced a stronger consensus for the conviction of the colour stories. Whatever colours are finally predicted for a season and however these colours are promoted throughout the industry to the consumer, it is the decision to purchase made by the consumer that determines whether or not the predictions were accurate or valid.

Marketing may influence the consumer's decision to buy; however, the colour choice is still the decision of the consumer, based upon their personal preferences.

As the fashion and textile industry is currently changing, retailers are showing evidence of relaying their observations and evaluation of the needs of the consumer back to the manufacturers, shifting the influence on colour direction from the manufacturer to the retailers. Developments in mass customization suggest that the current forecasting process is not as effective or successful as the industry would like. As the customer now is to some extent – and possibly always will be – a major driving force of fashion, their preferences are a key aspect for consideration.

It is difficult to find any book which clearly defines the stages of colour forecasting but a model of any process enables us to understand it more clearly. We will look at a model of the general practice currently employed throughout the fashion and textile industry and compare this with a proposed improved model. We do this using elements of a modelling tool known as soft systems methodology (SSM),widely employed in investigating human behaviour.

Soft systems thinking was a useful tool to use in investigating the colour forecasting industry and to develop two models.

The first of these models expresses the methodology as currently used and the second expresses what we consider to be an improved approach. These models were used to survey the UK fashion and textile industry in order to test their validity. Once analysed and interpreted, the survey results suggested that the models were easy to understand and that the response rate was good. The models were refined using feedback from the survey and consumer opinion was also tested, stressing the need to improve the current colour forecasting process.

We have seen that colour forecasting provides a tool to help the fashion and textile industry make the correct colour choices for their products. However, it is evident that a potentially valuable source of information has not yet been fully exploited, that of market research to investigate and understand consumer colour preference, desire or need.

#### Colour forecasting provides:

- an evaluation and analysis of the possible colour preferences of consumers for a season approximately two years ahead of the retail season, giving ample time to fit into the production schedules of the industry.
- a service enabling the presentation and sale of this information to the fashion and textile industry.

Colour forecasting is carried out worldwide by individuals working for specialist

forecasting companies who will sell a limited colour story on a seasonal basis to the fashion and textile industry. The colour forecasting process and service thus promotes a selection of colours for a predetermined time period in the near future for all sectors of the fashion and textile industry. The forecasts predict colours through a complex mixture of intuition and analysis. The information is used by those responsible for the colour decisions of their company's products.

# Who uses the colour forecasting process?

Colour forecasters work in many different parts of the industry.

This is illustrated in Figure 1 which shows forecasters who work with the colour forecasting process from the Initial concept (the original colour forecasters) through to the consumer of the end product.



At the early stages of the process there are those who provide the service to the industry, known as the colour forecasting companies. Thereafter the information users become less and less involved, starting with the fibre, yarn and fabric producers, followed by the garment manufacturers, and finally the retailers. Often, designers and product buyers take on the role of forecasting as they are responsible for their company's colour choices. Large companies generally have a team of people working together to compile their colour

stories; smaller companies may have only one person responsible for this – usually the designer.

The first level of information users is that of the fibre and yarn manufacturers who supply the fabric manufacturers and knitwear companies. The fabric manufacturers supply the garment making industry, and both the knitwear companies and the garment manufacturers supply the retailers. The fibre and yarn manufacturers use colour forecasting information to help them to compile their own prediction packages in the form of shade cards with sales data usually influencing their choice of colour. The major companies' colour teams all regularly attend national and international colour meetings.

Fabric and knitwear manufacturers use both colour forecasting information and fibre and yarn company shade cards to direct their colour choices, and this information is well disseminated via trade exhibitions. Garment manufacturers also utilise both forecasting information and shade cards;retailers will make use of forecasting information along with information gathered from trade fairs. Retailers may also use sales data, particularly large companies using EPOS (electronic point of sale) systems. No evidence has been found of collecting colour data, nor any indication of who could take on its analysis. This is a major source of information not presently exploited.

The consumer may be influenced by colour trends promoted through magazines and television but does not have access to the trade forecasting information. It is consumers, however, who prove the effectiveness of colour forecasting predictions by what they buy. The consumer is observed by the colour forecasters, hereby involving them in the process albeit without them realising it.

# How colour forecasting is perceived ?

There are two basic views of the colour forecasting process:the positive and the negative. Those endorsing the positive view perceive the process as a tool used by a specialist service sector to provide accurate trend prediction information to the fashion and textile industry, enabling the user to anticipate accurately consumer colour preferences for a predetermined season in the near future. This allows the industry to manufacture desirably coloured products for the benefit of both the company and the consumer.

Those taking the more negative view see colour forecasting as a process used by a service sector to exploit the fashion and textile industry for financial benefit, and to dupe the general public by its attempts to direct consumer preferences with clever marketing. This negative interpretation is perhaps extreme but may be happening by default, despite the best intentions of the forecasters. A high volume of sales on the high street will confirm the forecasters' ability for getting it right, instilling confidence in the service. Low sales however will weaken the credibility of the forecast predictions, generating a lack of confidence in both the service and the process.

In reality, it is probably a combination of the two perspectives that prevails. The tangible, objective tools instill confidence, while the less understood, subjective ones create suspicion. Good marketing engenders optimism but a low volume of sales on the high street leads to pessimism. If the 'softer' elements of the process were better understood and the forecasting process as a whole demonstrated a higher success rate, forecasters would be perceived as beneficial to the industry. Colour forecasting may thus be seen as a process that has potential to assist the fashion and textile industry to thrive but is as yet little understood, so remains underdeveloped and its value consequently underestimated.

Two further points for consideration are those of consumer lifestyles and mass customisation and how they add to the perception of trend forecasting. Consumer lifestyles are much investigated and their significance now recognised as a key influencer of marketing. Companies base their product range on customer profiles created from lifestyle information. But what of colour preferences? Consumers can only choose to buy or not buy the products on offer at that moment in time, expressing their acceptance of the products offered.If lifestyles are so important to marketing, why is colour preference data not felt to be beneficial? Why is the industry still so reliant upon the forecasters' anticipations of colour acceptance? Mass customisation is the large-scale manufacturing of individual consumer products. Whether or not this approach is viable is not the issue but it does suggest that the industry may not be completely satisfied that the present forecasting service is as accurate in its predictions as it could be. Accuracy is crucial to the survival of the industry.

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The responsibility for colour direction The onus for the direction of colour initially rested with the primary market sector; i.e. the fibre, yarn and fabric manufacturers.

They produce the colours of the raw materials that the rest of the fashion and textile industry use. Yet the retailers clearly have more access to information on consumer buying behaviour and selection preferences through sales data, observation and feedback communicated from the shop floor.

Four areas of the industry are illustrated in Figure 2, referred to as Levels 1 to 4: the forecasting sector; the fibre, fabric and yarn manufacturers; the garment manufacturers; and Level 4,the retailers, identifying the usage of colour forecasting information at the different production areas of the industry.



Historically, the forecasting sector was incorporated within the manufacturing sector, until forecasting companies were established and relieved the primary market sector of the growing complexities of the forecasting process.

The responsibility for colour direction is now beginning to change as the current system of manufacturing and retailing is restructured. Many fashion manufacturing companies are producing garment designs and specifications around the table of their design room, along with the buyers of the top high street retail stores. Production of the garments is undertaken by CMT (cut, make and trim) factories, and the fashion company may then screen print the surface design onto the garments according to their clients' requirements.

The specifications, including the colour range, are agreed by both parties and though the initial colours are determined by the retail sector, the fashion company advises on any technical problems they may encounter when working with particular colours on certain

# fabrics or fibres.

The system previously in operation has now changed in some areas of the industry. Retailers are becoming more aware of the consumer, observing and testing through instore trials in order to anticipate more accurately preferences within their own market niche. They then dictate their requirements back to the manufacturing sector, thereby shifting the onus for colour direction. If only large retailing companies existed, then the responsibility for colour would be entirely with the retailers. At present both systems operate concurrently, as independent or sole trading shops do not have the clout to demand their requirements from the manufacturers.

Instead, they use wholesalers who act as middlemen between retailer and manufacturer. This increases the cost of products to the independent retailer, disadvantaging them further. However, even independent stores operate some kind of forecasting method in their efforts to supply garments that their customers will want to buy. Some kind of decisionmaking process has to be used to make informed choices on colour for stock, unless garments are to be selected totally randomly, or intuitively. Even this apparently obscure process of selection must be based on some sort of identifiable methodology using thought, reasoning processes and decision-making.

We found that many dye houses are working on a commission basis, dyeing to customer specifications, usually supplying only the larger companies. Also, some yarn merchants buy stock without consideration of their customers' needs, on the assumption that the yarns will sell eventually. Such merchants are often riven by low price opportunities (stock clearance sales) more than by planned stock purchasing.

These sales-driven rather than market-driven businesses are still supplying the independent retailers through manufacturers and wholesalers. But would it not make better business sense to stock to demand? Also, chances of repeat orders are hindered when the yarn eventually sells out some years later as it is then difficult to match the dyelot. Some companies appear not to carry out any kind of forecasting.

The current colour forecasting process Colour forecasting aims to evaluate accurately the moods and buying behaviour of consumers; it collects colour data, analysing and interpreting it intuitively. The process depicts the possibilities and anticipates the direction of colour, as well as assessing the rate of change seasonally in order to establish what timing of such changes is acceptable to the consumer. The seasonal colour stories indicate hue, value and intensity and are heavily promoted throughout the industry.

While these stories are thought important to the generation of high street sales, they can also set limitations, dissuading individual companies from using their intuition and feelings for colour direction based on their own sales data.

However, those with knowledge of the process are reluctant to divulge any indepth information either because of commercial secrecy or because they find it difficult to explain the system in detail.

The colour forecasting process involves the series of activities including data sourcing and collection; analysis and evaluation; interpretation and presentation.

The many varied sources used by the colour forecaster create a database, which can be described as the input of the system, as shown in Figure 3.



The final result is referred to as the output of the system and can either be viewed as a colour story or as a trend prediction package. The stage between the input and output is that of transformation, i.e. what takes place in order to change the data from source into the final result.

This transformation stage is essentially the process of colour forecasting as a tool for the application of seasonal trends for the fashion and textile industry. The first activity in the compilation of a colour story is collecting the data.

Hard data is assessable and recorded, such as sweet wrappers and fabric samples; soft data remains in the forecaster's memory, employing awareness and observation skills. The information is then analysed using a process of assessment and elimination, employing awareness and observation skills. The information is then analysed using a process of assessment and elimination, employing intuitive skills as well as thought, decision and reasoning processes which we will term soft skills.

The information is then interpreted, giving it meaning, using these same soft skills and so the colour story develops, via a process of assessment, comparison, selection, exploration and experimentation.

This development continues until the forecaster is satisfied with the result. The colour story is then refined through a process of elimination, again involving the soft skills. The current colour forecasting process anticipates consumer acceptability, with the forecaster accepting or rejecting certain colours.

If colours are rejected then the process can begin again at any point, even as far back as collecting further data. If the colour story is accepted, then a final colour story is completed through to packaging for presentation. Predictions are then established through promotion and marketing. A model of the current colour forecasting process is shown in Figure 4



This model was validated by testing a large sample of personnel within the manufacturing, retail and specialist sectors of the fashion and textile industry involved in forecasting.

Over 80% agreed that the model was a close representation of the current colour forecasting process. The model was subsequently improved by taking into account

feedback from the industry. Those using a different methodology were identified as independent retailers who claimed not to use a forecasting process.

# Testing the model of the current forecasting process

The accuracy of any prediction is validated through sales on the high street and to test the effectiveness of the current colour forecasting process, we asked the general public their opinions. We found that only half were satisfied with the colour range available to them.

Forecasters aim to satisfy 80% of the general public with their predictions but the current colour forecasting process is not providing the level of satisfaction needed by the manufacturing and retailing sectors of the industry. The process would benefit from some improvement to create more sales on the high street and offer more security for manufacturers. Feedback indicated that the colour choice is too narrow as most high street stores are promoting the same colour stories. On the whole, this survey indicated a high percentage of the general public would welcome a wider colour selection. Eighty-three percent said that colour would or had influenced their purchase.

Colour is a strong influence when purchasing fashion garments and sometimes the fabric, particularly specialist fabrics such as denim and suede, will influence a purchase. Also, style and fabric sometimes persuade the consumer to purchase even though an alternative colour would have been preferred.

Staple or neutral colours (such as white, black, cream, beige) are more likely to be bought as a compromise to preferred colours than fashion colours would be. These staple colours are therefore considered by the industry as safe colours.

Fashion colours or fad colours require more skill on the part of the forecasters to anticipate their level of acceptance and by which segment of the consumer market. It is the forecasting of these colours that would particularly benefit from an improved process.

# The missing link

The consumer has been identified as being one of the prime driving forces of fashion. Before the industrial revolution, designers had close professional relationships with their clients (those able to afford fashion) as shown in Figure 5. As the textile industry thrived, new sources of inspiration were sought by manufacturers, demonstrating an early demand for forecasting, shown in Figure 6





While couture designers maintained their links with clients, the industry did not. This is illustrated in Figure 7.



By the twentieth century, direct links between consumers and designers were very few, only existing in the *haute couture* industry (see Figure 8). As designers within the industry do not work on a one-to-one basis with clients, there is no direct link between the industry and the consumer. As this lack of communication increases, manufacturers become less informed of consumer needs. This became recognised and by 1930, a small number of forecasting companies were established in Britain following in the footsteps of the USA.



By the early 1930s seasonal colour palettes were emerging as an important directive for trend information. This development seemed to disappear over the subsequent 40 years, possibly with the demise of The British Colour Council, the originator of the concept.

The notion of fashion being consumer directed became increasingly evident and important. More forecasting companies were established during the 1960s and 1970s and marketing strategies became crucial for company survival. As the recession lifted, consumer lifestyles became ever more varied. Marketing techniques rose to this challenge and the industry's need for precise consumer colour trend information increased, particularly within the primary market sector – the fibre, yarn and fabric manufacturers.

Following the lead of the fashion company Next, colour established itself as a key marketing strategy and a more important driving force of fashion. Forty years after The British Colour Council initiated the seasonal colour it now took a key role in forecasting. However, forecasters may still be guilty of influencing colour direction as opposed to anticipating it.

Figure 9 presents a snapshot of the present state of the industry in relation to the consumer. Is consumer demand for colour really sought and recognised? Are the forecasters still assuming our demands Preferences? Or are they deliberately trying to direct them?



Judging by the end-of-season sales on the high street, consumers'needs are still not being met successfully. This may be due to the fact that observations of consumer desire reflect colours already available; one cannot observe the general public wearing colours not available to purchase.

While the driving force of fashion has always been the consumer, the economy of the industry also has a bearing upon fashion – or at least upon the rate of change of fashion.

Due to the structure of production costs, colour is a relatively easily changeable factor. Colour has therefore become a very important element of the driving force as well as a powerful marketing aide. Sales have become heavily dependent upon seasonal colour stories and colour therefore plays a substantial role in the fashion and textile industry. The consumer influences the validation of colour forecast predictions, and is also a source of information through market research, though this area appears to still be relatively unexplored (see Figure 10)



# Creating a better model for the colour forecasting process.

Colour forecasting can be viewed both as a service and as a process. The service is the marketing function of the prediction packages, the product of the colour forecasting process. The process is used to produce and promote a selection of colours. The industry uses the prediction packages to assist in their colour decisions, in the hope that their resulting products will achieve optimum sales by meeting the desires, needs and preferences of the consumer.

Ideally, the consumer should benefit from the availability of desirably coloured products on the high street. The level of benefit here is the real crux of the matter under consideration and determines the effectiveness of the whole process.

The higher the level of benefit for the consumer, the higher the volume of sales on the high street (subject to disposable income and state of the economy). The accuracy of anticipating the consumer's colour preferences or demands determines how beneficial the service is to the consumer and to the fashion and textile industry. However, beneficiaries of the colour forecasting process can also be seen as its victims if the efficiency of the system is in question, and forecasts prove false.

The industry buys the rediction packages from the specialist forecasting sector to achieve a high volume of sales directed by consumer satisfaction. To make sure that the colour range is acceptable – or better still, desirable – to the consumer, testing the market is clearly preferable to anticipating it.

We found that almost 70% of respondents involved with the colour forecasting process felt that the current system could or should be improved to benefit both the fashion and textile industry and the consumer. More than half questioned were from the retail sector, indicating that this sector is highly conscious of consumer satisfaction, having a more direct link with the consumer.

Another reason may be the apparent shift in responsibility for colour direction, as previously discussed.

# The improved process model.

A proposed improved model for colour forecasting is shown in Figure 11. As consumer preference data gathered in the shops would be more accurate than what the current system offers, the colour palette as a whole should not, theoretically, be rejected as much as in the current model.



Individual colours may be eliminated while developing the final colour palette. We can therefore exclude the accept and reject stages of the current model (shown in Figure 4), used to anticipate consumer cceptability, in favour of a stage of selection and elimination which would take place between the analysis and interpretation stages much earlier in the process, therefore saving time between the refinement of the colour story and its final compilation. The proposed improved system would be used to collect, on a continual basis, data on colours not currently offered, as well as aiding assessment of the changing levels of acceptance of current colours offered on the high street.

Alternatively, this could be a separate source of data incorporated into the input of the model if the information was collected and analysed by a third party, such as a market research consultancy.

This could start another new sector, in the same way that the specialist forecasting sector was formed in the twentieth century. A device could be designed and sited in stores for consumers to interact with. The analysis from this would be undertaken by the designers and/or buyers currently using colour forecasting.

## What forecasters said about the improved model ?

To validate this new model we asked the respondents for their views. Almost 70% of

these in retailing agreed that their company would benefit from the improved system; almost 50% in manufacturing, and more than 80% of forecasters in the specialist sector also agreed.

Those involved in the initial process would welcome a database of hard information to assist them develop their colour stories using stronger objective tools; the retailers would also appreciate this more tangible Input.

The manufacturers would find themselves more dictated to and become less proactive as the responsibility for colour direction changes. This model does not suggest any need for consumers to understand the process of colour forecasting; they are simply asked to contribute to the data collection by indicating their colour preferences, or stating which colours are missing.

It can be argued that consumers do not know what they want until they see it and marketing plays a key role to exposing them to something new in readiness for its acceptance.

This theory can be incorporated into the improved model, as a series of colours would constantly be shown to those consumers interacting with the market research device.

There was slight concern by the industry that the methodology would no longer be forecasting if the consumers are given what they want. However, the colour palette to be tested has to be predicted initially and the testing stage would be used to verify its compilation.

A misconception of consumer preferences emerged from our survey. Some retailers give consideration to previous seasons' best sellers and see this as recognising consumer preferences. But as consumers can only buy what is available at the time, sales data gives no more than a snapshot of purchases in the present or past; it cannot indicate preferences for colours not currently on offer.

In-store trials, where the general public is asked to give feedback on colour preferences, are used by some of the larger retailers though again obtaining feedback only on acceptability of selected colours. However, as this is a costly process it is not viable for the smaller retailers.

A comment of particular interest was made by personnel from the specialist sector that it is sometimes possible to base a season's new stock on a previous season's best sellers. While the range would not offer the consumer anything new interms of colour, it would support the prime role of colour preference data and its application to the colour story.

Though again, present colour preference data will not highlight potential new colours for the range.

One respondent commented that an element of surprise and beauty is always required of a range. Surely this element should be incorporated into the application of colour and the style of the end products. Also, we are not dismissing the importance of intuition, which will always exist. It should be remembered that colour is an important influential factor of the consumer's buying behaviour, but other aspects are also influential and important. It is the role of the designer and of the buyer to take these aspects into consideration. The garment as a whole should reflect something new, not the colour alone.

There was an encouragingly high level of positive feedback, including suggestions that using colour preference data could save a great deal of time for the system user. Consumer opinions were recognised as beneficial to the retail industry and including the consumer in the process was seen as sending out a positive message and making the consumer feel valued and respected. It was felt that consumer preference information would help to diminish the influence of the shop buyer's preferences in ranges.

Many respondents believed the improved model was of interest and if achievable at speed, could supply the retail sector with suitably concise forecasts.

Other respondents were concerned that the proposed model could result in a rigid colour palette, unchanged from season to season. We do not consider this to be likely, as each retailer would be working with data obtained by their own customers, or potential customers. The information would therefore be unique to each store, producing different ranges in different stores, depending on the target market customer.

This would result in more choice for the consumer along the high street as a whole. Retailers with more than one outlet would benefit from being able to regulate the different levels of colour acceptance in different store locations across the country – as well as across the world.

Some respondents felt the model was worth testing as it may lead to a return of style rivalry instead of the present price rivalry. Currently the consumer may benefit monetarily but at the expense of quality; in other words, you get what you pay for.

Style rivalry however, stimulates quality at good value for money; this may be the key to the thriving manufacturing industry that the western world once had, making them strongly competitive once more.

There was positive feedback for the development of a method to capture consumer preference data quickly and to constantly monitor changes of taste.

Marketing was highlighted as a possible way of enabling the consumer to continually influence colour ranges before products went on the shelves in the high street.

Retailers are becoming more aware of consumers' needs and desires through market segmentation and target market profiling developed to assist the retailer to stock in accordance with the requirements of their average customer.

The target market customer profile is fictitious but is based upon market research, which includes demographical information and lifestyle analysis.

The proposed new colour forecasting model would be highly beneficial to retailers, reestablishing the lost links with the consumer since the growth of the industry. The missing link is that of consumer colour preference.

The survey conducted in order to validate the current model and to test the proposed improved model with personnel within the industry suggested that a high percentage was in favour of improving the current colour forecasting system and in particular, that the inclusion of consumer colour preference data would be advantageous to the retail sector.

# Summary.

A process for forecasting colour has evolved and while this process may vary slightly from user to user (and some personnel appear to be unaware of using a system at all), the model of the current process discussed in this chapter is representative of how it works throughout the fashion and textile industry.

However, just because a process is widely adopted does not mean it is working to its optimum level, nor that mprovements or updates to the system should not be considered.

In fact, fashion and consumer desire is an ever moving and changing energy so it does not make sense for the colour forecasting process to be stagnant in its approach to trend prediction.

As our survey showed, the current process is not attaining the level of satisfaction on the high street that forecasters aim for. We have looked at one way in which the present process could be improved. It is not suggested that this is the only way, nor that no other improvements could be identified, tested and applied.

The development of trend prediction should be an ongoing process, like fashion itself. The recognition of the current shift of responsibility for the direction of colour within the industry demonstrates the need to remain sensitive to change.

In this article we have discussed the current forecasting process in greater depth through models and looked at one way of improving the process for the benefit of both the industry and the consumer.