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# From Model Cars to Collectible Items: Matchbox

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**ABSTRACT**
The Second World War put industrial metal casting technology at a very advanced point. However, when the end of the war, many companies struggling with metal spillage suffered a huge market loss and tried to create new markets for them. Inspired by the rapid development of automobile production, some companies have started to produce toy-model automobiles, which are usually made of sheet metal curling up to that date, by using molding techniques that they have greatly advanced. Matchbox collectibles are the most common collection of model cars in the world. In the Matchbox collection, there is a transformation of the playing object possessed in childhood into the collection object in adult ages. It is clear that the game and pleasure are highly influential in the accumulation of Matchbox model cars. It is seen as a return to childhood memories and emotions given by the game-player rather than the economic value of the collective's intended purpose. In the context of the Matchbox example, the transformation of design objects to collection objects will be investigate from the design perspective, along with the history and development process of the daily used of model cars.

**Keywords:** Product Design, Collecting, Matchbox, Model Cars.

## 1. INTRODUCTION

Matchbox is not actually a name of a manufacturer company, but a registered trademark in 1953 created by the British company Lesney. Matchbox is a popular British toy brand which was introduced by Lesney Products in 1953, and is now owned by Mattel, Inc, which purchased the brand in 1997. The brand was given its name because the original die-cast Matchbox toys were sold in boxes similar to those in which matches were sold. The brand grew to encompass a broad range of toys, including larger scale die-cast models, plastic model kits, and action figures. The most important feature is that although the model cars are very detailed and realistic, the initial sales price is low. It has attracted worldwide attention and is widely sold. In this study, design history of Matchbox with the production methods, development processes of model cars and will be discussed. At the same time, collecting behaviours of customers will be examined by the Matchbox examples through transformation of a design product used for playing into a collection object over the time.

The Second World War put industrial metal casting technology at a very advanced point. However, when the end of the war, many companies struggling with metal spillage suffered a huge market loss and tried to create new markets for them. Inspired by the rapid development of automobile production, some companies have started to produce toy-model automobiles, which are usually made of sheet metal curling up to that date, by using molding techniques that they have greatly advanced. When it comes to the 1970s, unlike the German Siku, the French Majorette, the British Dinky and Corgi, whose sales are limited, there is only one brand in the world that is identified with model cars: Matchbox.
Matchbox collectibles are the most common collection of model cars in the world. Other brands are Dinky in France and England, Corgi in England, Hot Wheels in North America, while Matchbox is common in Europe except for the mentioned countries and in Japan as well. The collectivity of Matchbox automobile models has become widespread, starting with amateurs primarily among children and young people. The first corporate community of

Matchbox, which aimed collecting under the umbrella of young- amateur collectors, was founded by US importer Fred Bronner at the end of the 1960s.

In the Matchbox collection, there is a transformation of the playing object possessed in childhood into the collection object in adult ages. It is clear that the game and pleasure are highly influential in the accumulation of Matchbox model cars. It is seen as a return to childhood memories and emotions given by the game-player rather than the economic value of the collective's intended purpose. In the context of the Matchbox example, the transformation of design objects to collection objects will be investigate from the design perspective, along with the history and development process of the daily used design products.

## 2. MATCHBOX

### 2.1 Production History

The Lesney company was founded immediately after the end of World War II for industrial mold casting. The company was named "Lesney" after a combination of the first names of its founders- Leslie Smith and Rodney Smith. Lesney was located in Homerton to the south of London (Figure 1). A simple but interesting development led the company to start manufacturing toys in 1953 soon after its establishment. Jack Odell, designer and partner in the company, made a cast metal toy for his daughter in the factory. At the time in England, children were only allowed to take their toys to school if they "fit inside a matchbox". The asphalt roller (Figure 2), dump truck and concrete mixer Odell designed and made for his daughter later became the first three models of the 1-75 line.


**Figure 1.** Mr. Lesney Smith(left) and Designer Mr. Jack Odell(right) circa 1965.


**Figure 2.** The First Matchbox Model; "1A Aveling Barfoard Road Roller" (Özgen, S; Personal Collection)

Odell's method of putting the toy he made inside a matchbox determined the next 30 years for the company, which was looking for new markets. They start manufacturing toys under the name "Matchbox". The toys were indeed sold in boxes sized about matchboxes. Initially, Moses Kohnstam undertook distribution and marketing works, and the first products were marketed under the name of "Moko-Lesney". The first models were British automobiles and trucks. They were followed by models inspired by American-made automobiles. When designers manufactured the models, they would use detailed photographs of the car or truck they had chosen to prepare molds. Original drawings were utilized for many models as well. This way, the models were made in detail in spite of their small scale.

In the late 1950s, Lesney acquired the shares of Moko, and increased sales and, therefore, production. The company grew. By 1968, the Matchbox brand had become the bestselling model car company in the world. However, a development slowed them down at this time. American toy giant Mattel released model automobiles named "Hot Wheels". The annual number of Mattel's models was going up to 200. Unlike Matchbox, these models were unrealistic, fantastical products. The primary reasons behind the leap of Hot Wheels in 1968 were that there were a larger number of models, their colors were extremely shiny and flamboyant, and they had broad revolving wheels (Figure 3). With slim axles fixing the wheels, the cars could go for a long time when pushed while the broad wheels maintained balance.


**Figure 3.** Hotwheels Set from 1968.

Slim wheels and thick axles of Matchbox only allowed the toys to go only as long as children pushed them on the ground. Matchbox was swift to respond. Within the same year, a portion of Regular Wheels was released under the name of "Superfast" with freely revolving wheels. In 1971, the entire 1-75 line was manufactured as Superfast models (Figure 4).


**Figure 4.** Ford Zodiac with Regular Wheels on the left and with Superfast wheels on the right (Özgen, S., personal collection).

In the early 1980's, in spite of the extremely high sales of main product line 1-75, Lesney came to the verge of bankruptcy due to financial difficulties England was in at the time. Lesney went bankrupt in 1982, one year after Meccano, which made Dinky, "the ancestor of all model automobiles", and one year before Corgi manufacturer Mettoy, both of which were British rivals. The company was sold to the America-based partnership Universal. This date was a milestone for collectors. Even today, many collectors do not regard the lines manufactured outside the U.K. after 1982 as Matchbox.

Universal renamed the company "Matchbox International Ltd." Production continued in England with a few number of old molds until the middle of 1980s. However, most of the machinery and molds were sent to Macau, where the main production continued. The company moved to Thailand first and China later towards the 90s. Old models made with existing molds in the early years of production in the Far East were manufactured with steel bases like the ones before. Universal became successful in the first few years by continuing the existing line, which had good design and details. The only change in the vehicles was the inscription "Made in Macau" on their bases. Macau was a small Portuguese colony to the south of China, which was to become the center of cheap manufacturing in the world.

An attempt was made to reduce costs by relocating production in Thailand and China after Macau, and the bases were made from plastic and the models became lighter. Matchbox was in a difficult position one more time due to reasons like the models' cheaper look and China capturing the toy market. Royalty of "Dinky" was acquired in the mid-80s but even this could not prevent the sale to America-based Tyco in 1992. Matchbox did not live under the control of Tyco Toys for long. American toy giant Mattel acquired Tyco in 1997, and all rights of the brand passed to the owner of Hot Wheels, which was Matchbox's rival for years.

Collectors were concerned about the brand's future when Mattel acquired Matchbox in 1997. It was feared that the models would become similar to the unrealistic Hot Wheels, which have low collecting value. Mattel continued production with the existing molds for a time. The "Hero City" line released in 2003 was a disappointment for children and collectors. According to the reaction of collectors and the toy market, Mattel created a new design team. Based in El Segundo, California, the team has been trying to revive the brand image with innovative and accomplished designs since 2005. Manufacturing operations continue along with Hot Wheels on production lines of Mattel in Thailand, China and Malaysia.

## 2.2 Model Range and Scale

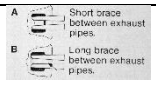
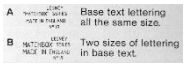
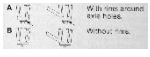
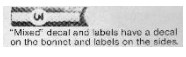
The chief product of Matchbox was a line of automobiles, trucks and buses named "1-75". The "1-75" line consisted of 75 models. When a new model was made, another was discontinued, and its number was given to the newcomer. Model numbers were placed on the base of the vehicles in models made between mid-1950s and 1982. The 1-75 line was sold with model names like Moko-Lesney, Regular Wheels (RW) and Superfast in chronological order.

The second model family, "Models of Yesteryear", followed (Figure 5). As is evident from the name, this line included classic automobiles from the beginning of the automobile era. The line was manufactured for collectors. When competition grew in the market after 1969, Lesney manufactured lines like airplanes (Sky Busters), ships (Sea Kings), combat vehicles like tanks, jeeps and panzers (Battle Kings), and large-scale model cars (Super Kings and Speed Kings). The metallic colored tanks, shiny ships, airplanes that do not resemble their original did not attract the attention automobiles did, and the ship line was short-lived.


**Figure 5.** Some examples from Models of Yesteryear series (Özgen, S., Personal Collection).

A simple solution was created for the scale concept. The models did not have a fixed scale but they did have a fixed length. Generally, it is observed that two main scales were widely used. Small models like the 1-75 line, subgroups Regular Wheels and Superfast were generally made to the scale of 1:64. The scale went up to 1:100 for models like trucks and buses, for which the 1:64 was not appropriate, in order to keep the same length. Models in the 1-75 line were about 5-cm-long until 1968. From 1968 to the present, the models have made to be about 7-cm-long.
The scale was 1:43 for large models like Speed Kings, Super Kings and Models of Yesteryear and the models were 9 to 10-cm-long. Their scale allowed these models to be detailed, which was appreciated by Matchbox designers and collectors.

**Table I.** The Different Details on Regular Wheels No: 19 Lotus Race Car (Stannard, Michael J., 1985)

|  | Group 1 | Group 2 | Group *c* |
|---|---|---|---|
| Main channel |   |   |  |
| Assistant channel |   |   | Channel 1 |

## 3. COLLECTING

### 3.1 Collecting

While collecting is not a new phenomenon (Rigby & Rigby, 1944, date an early collection of seal impressions to the 5th century B.C.) there has been a recent surge in the number of people who collect, the scope of objects people collect, and the prices people will pay for these objects (Belk, 1991). Above and beyond the casual relationships that are present with everyday consumption, collected objects that are consciously and purposely chosen to indicate that a relationship exists between individuals and the objects. Collecting is, beyond the standard day-to-day purchasing of goods, seen to be a complex and fascinating result of consumer's relationship with the material world (Pearce, 1995). Reasons why people collect vary. Literature mentions that collectors use possessions as a means of realising self-concept and constructing and maintaining a sense of identity (e.g., Belk, 1988; Formanek, 1991; Sartre, 1943).

Collecting is a complex behavior that has been studied from a variety of different perspectives. It is not difficult to understand why individuals collect certain things. Art objects, stamps, coins, and other established collectibles markets, have been shown over the years to provide some degree of return to the collector (Anderson, 1974; Baumol, 1986; Dickie, Delorme and Humphreys, 1994; Frey and Pommerehne, 1989; and many studies summarized in Burton and Jacobsen, 1999).

Belk (1995, p. 479) defines collecting as "the process of actively, selectively, and passionately acquiring and possessing things removed from ordinary use and perceived as part of a set of non-identical objects or experiences." In their study of collecting from a social psychological perspective, McIntosh and Schmeichel (2004) define collecting as a "concrete goal-striving process." The eight phases of collecting they describe are related to the pursuit of completing the collection: deciding to collect, gathering information, planning and courtship, hunting, acquisition, post-acquisition, display, and then repeating the cycle. According to Long and Schiffman (1997), collecting is described as "paradoxical". They describe collecting as both "rational and irrational, deliberate and uncontrollable, cooperative and competitive, passive and aggressive, and tension producing and tension reducing." This study hopes to resolve this paradox by bringing collectors back into the realm of rational behaviour. Taken literally, as Belk (1995) describes, collecting is materialistic luxury consumption. In this light, collecting is a form of egoism, and as such, the collector is predominantly interested in his or her own welfare or pleasure. Wolf (1980) argued that the motive for collecting may stem from a childhood in which the child was given material things rather than love; in this case objects come to stand for love and acquiring things becomes a way of self-assurance for the child, affirming that it can be loved. It has also been argued that the need to combat boredom is a major motive for collecting (Jullian, 1966). McIntosh and Schmeichel (2004), by employing a social psychological perspective, argued that collecting is a sequence of multifaceted behaviours which revolve around the self, from the ability to achieve goals to offering a hope of immortality.

There is a close interrelating relationship between possessions and an individual, and that individuals use objects to represent and confirm elements of their sense of 'self' (Belk, 1988). Therefore, what we choose to own can be said to be linked to who we are, our identity (Belk, 1988; McCracken, 1987; Solomon, 1983). Sartre (1943), as cited by Belk (1988), points out that possessions are critical to self-identification and are a key to existence contrasts on a fundamental level with the Marxist view that "doing, in particular working, is central to existence and self-worth". Marx, amongst others (e.g., Galbraith, 1984; Stanfield and Stanfield, 1980) believed that societies' interest in the material and the blatant or conspicuous consumption of goods is an unfortunate effect of capitalism. As Tuan argues, "Our fragile sense of self needs support, and this we get by having and possessing things because, to a large degree, we are what we have and possess" (1980, p. 472). That we are what we have (e.g., Van Esterick 1986; Feirstein 1986; Rosenbaum

1972) is perhaps. the most basic and powerful fact of consumer behavior. While the acquisition of and interest in certain pieces is not shared by everyone, Belk et al. (1991) argue that collecting is a service in the fields of art or science, as the collector has specific knowledge and skills pertaining to the objects that are sought out. Furthermore, collecting enriches the life of the collector and often those around them.

### 3.2 Matchbox Collecting

In the collecting form of consumption acquisition is the key. Collecting differs from most other types of consumption because it involves forming what is seen to be a set of things - the collection (Belk, Wallendorf, Sherry and Holbrook 1991). This collecting is non-utilitarian; however, it is a highly involving passionate consumption, rather than an uninvolving form of consumption such as buying. As a result, collectors tend to feel attached to their collections in ways that may seem irrational if viewed in terms of the normal functions of consumption (Belk 1995). Belk (List 1991 p. 47) has called collecting "the distilled essence of consumption." Basically, collectors are the ultimate consumers and brand collectibles are big business (Slater, 2001). Mattel currently manufactures a collectible line of Barbie dolls, others movie characters such as Frozen.

Collecting Matchbox model cars emerged as an amateur interest among children and young people and gained popularity later on. The first institutional body intended to gather young and amateur collectors under one roof was founded by the Fred Bronner company, U.S.A.-based importer of Matchbox, in the late 1960s (Figure 6). When Lesney previously recognized the interest of collectors in these small models, it introduced the "Models of Yesteryear" line, which had higher collection value, in the 1960s. These models were scaled to 1:43, which enabled a more detailed production. As the name suggests, Models of the Yesteryear consisted of automobiles made in the early 1900s. Apart from this, Lesney tried to increase its market share and encourage children to be collectors of the future through the motto "Collect them all!" written on the boxes of 1-75 models.

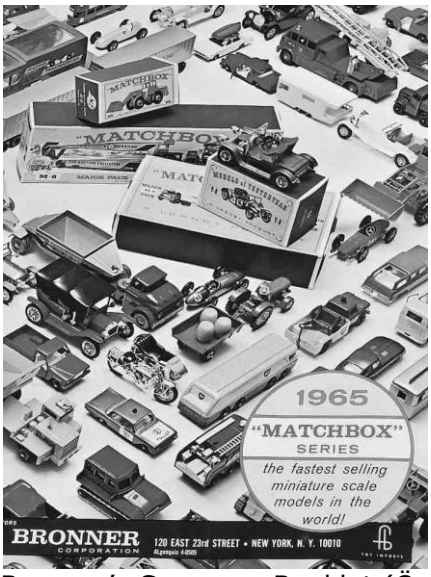



**Figure 6.** US importer Fred Bronner's Company Booklet (Özgen, S., Personal Collection)

In the 1970s, semiprofessional groups of adult collectors were formed in the countries Matchbox was sold in. Unlike the younger groups, these groups have been debating various characteristics of the models, releasing publications and determining prices. The 1-75 model automobiles may look like cheap children's toys from the outside, but they actually involve complex attributes that stem from manufacturing methods. Two models of the same model of the same brand made in different times have very varying characteristics. The first of these variables is color. Certain colors were deliberately used in different

shades. The second variable is the different colors used in plastic hardware, which includes seats, the steering wheel and the front console. Wheel width and wheel hub patterns constitute the third variable. The fourth variable is the base patterns, inscriptions and colors used on the base.

In addition to these main variables, stickers and special changes applied on the models have been identified by collectors one by one. The foremost publication on these differentiations and variations is the "Encyclopedia of Matchbox Toys", which was published by Charlie Mack in the U.S.A. This publication is constantly updated by the publisher, features photos of the models and variations of Matchbox since the beginning of its production until today and gives an up-to-date value range. Matchbox collecting is the most prevalent line of valuable model car collecting in the world. Among other brands, Dinky is widely collected in France and the U.K., Corgi in the U.K., and Hot Wheels in the U.S.A., whereas Matchbox is widely collected across Europe and Japan in addition to the aforesaid countries. Muensterberger (1994) is correct that the collector needs repeated nourishment, then there is a need for a constant new supply of collectibles. And this theory works with the Matchbox production.

### 3.3 The Economic Value of Collecting Matchbox

The fact that collectible goods are non-reproducible (i.e., even "new" collectibles are produced in limited supply and later reproductions of equal quality to the originals would be considered inferior as "copies" clearly affects the market situation for such goods. The value of a Matchbox model depends on three factors - rarity of the model, physical condition of the model, and whether it has a box-package. The most important factor that increases a model's value is its rarity. The chief characteristic that makes a model rare is it comes from a limited edition. Except for models especially made in limited numbers, certain models were manufactured for very brief periods. This was due to various reasons, such as breaking a mold during production, or a difficult and unsuitable model for production, or changes in the sales policy. Characteristics of scarcity and non-reproducibility affect the prices of collectible goods determining not only the amount and direction of price variability, but also the degree of uniformity in price among identical or nearly identical good.

The final product after mold corrections, color and material changes performed on models during production is a variation of the original. Variations can even come about due to a worker error during production. The original model or any of the variations can be sometimes limited in number, and, therefore, is more valuable.

Physical condition of the model is of importance. Models with intact paint that have not been played with and can be called virtually new are defined as "mint". The better condition a model is in, the more valuable the model is. Repaired, restored and painted models are regarded as not having collecting value.

One of the main characteristics of the 1-75 line is the carton boxes they were sold in. These boxes, which reflect the spirit of the matchboxes the company was named after, have illustrations of the vehicles (Figure 7). Like the model cars, some of the boxes were also made in limited numbers. More difficult to preserve compared to a metal model, these carton boxes are sometimes several times more valuable than the models themselves.


**Figure 7.** 4 different versions of boxes. (Özgen, S., Personal Collection)

Unlike the generally fixed prices in coin and stamp collecting, these small models are rapidly gaining value among collectors. Collectors do not only collect cars but also everything else about Matchbox, including boxes, catalogues and almanacs. The extent to which collectible goods have been "catalogued" is another very important factor in determining price characteristics: level, variability and uniformity.

The most valuable and the rarest Matchbox ever manufactured is the red Pontiac GP of the Superfast line. As stated above, the Superfast line was initiated by a snap decision in 1969. A portion of the Regular Wheels (RW) line was mounted with Superfast wheels and production continued uninterrupted. This model, which had a red body in the RW line, was painted in purple for Superfast. However, workers of the company mounted an unidentified number of red bodies remaining from the previous production with Superfast wheels (Figure 8). These models were not released by the company but were manufactured in the factory, and they exited the factory somehow inside lunchboxes of factory workers. These models are called "Lunchbox Matchbox". If they can be found, these are currently sold among collectors at 3000 euros or more. In virtually every area of collectible goods where prices were rising at a rate that exceeded inflation in the late 1970's, investors, as opposed to collectors and hobbyists, have been observed to be operating. Concrete empirical evidence of their operation is difficult to obtain and the effect on prices and availability of the collectible good in question is seemingly impossible to separate empirically from the effects which would 147cur as a result of increased demand by hobbyist (Stoller, 1984).


**Figure 8.** Superfast 22A Pontiac, red version (standard model is purple as pictured on the box) (Özgen, S., Personal Collection)

## 4. CONCLUSION

According to Belk, our self-definition is often highly dependent upon our possessions (Belk, 1988). The collection is especially implicated in the extended self because it is often visible and undeniably represents the collector's judgements and taste (Stewart, 1984). In addition, the time and effort spent in assembling a collection means that the collector has literally put a part of self into the collection. Sometimes collections involve a particular theme that is symbolic of one's occupation, family heritage or appearance (Belk, 1988).

Because of this connection to self-definition, collections have been seen as aiding in children's development (e.g., Witty and Lehman 1931; Tooley 1978). The notion that collections represent one's extended self-accounts for many of the self- enhancing motives given for collecting, such as seeking power, knowledge, reminders of one's childhood, prestige, mastery and control.

In the context of the Matchbox example, the transformation of design objects to collection objects were investigate from the design perspective, along with the history and development process of the daily use of design products, consumer behaviours and economic value of collecting. There is a transformation of the playing object possessed in childhood into the collection object in adult ages in the Matchbox collecting. Game and pleasure are highly influential in the collecting of Matchbox model cars more than its economic value. It is seen as a return to childhood memories and emotions given by the game-player rather than the economic value of the collective's intended purpose.

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