WHEN TRANSFORMATION FAILS: TWELVE CASE STUDIES IN THE AMERICAN AUTOMOBILE INDUSTRY

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The demise of 12 American automobile brands over the past century is discussed. Companies can respond to various difficulties by making decisions on their automobile offerings. These decisions are central to relationships between companies and consumers. These decisions included broadening their offerings to address a larger portion of the automobile market, narrowing their offerings to address the company’s financial situation, focusing on current offerings to keep them successful, or switching to other offerings to achieve greater profits. A case-based approach is used to explore the detailed nature of this range of attempts to change. Due to a variety of factors characterized in terms of four levels of explanation, these brands failed. Consequently, these companies’ attempts to transform via offering-related decisions failed. These failures reflect, to a great extent, inabilities to balance the tension between differentiated offerings and economies of scale or market demands.

Keywords enterprise transformation; automobile industry; production costs; brand differentiation; globalization; case studies

1. INTRODUCTION

Fundamental transformation of a large enterprise is very difficult. Recent data on the Fortune 500 reported in The Economist supports this assertion (Schumpeter, 2009).

• During 1956–1981, an average of 24 firms dropped out of the Fortune 500 list every year. This amounted to 120% turnover in that 25-year period.
During 1982–2006, an average of 40 firms dropped out of the Fortune 500 list every year. This amounted to 200% turnover in the more recent 25-year period.

Thus, successful enterprise transformation is not only very difficult, it is becoming more difficult and the failure rate is very high. Of course, we do not know that these 1,600 firms attempted transformation. Our presumption is that not many of them willingly left the Fortune 500. It seems reasonable to further assume that many of them noticed that something was happening and made some attempts to counter the consequences.

One way to understand this phenomenon is in terms of a theory of enterprise transformation (Rouse, 2005, 2006):

Enterprise transformation is driven by experienced and/or anticipated value deficiencies that result in significantly redesigned and/or new work processes as determined by management’s decision making abilities, limitations, and inclinations, all in the context of the social networks of management in particular and the enterprise in general.

Creative destruction is usually driven by external sources that the company cannot successfully counteract. Those leaving the Fortune 500 are likely to have experienced value deficiencies, and failed to remediate these deficiencies by redesigning and/or creating new work processes to provide offerings that the marketplace valued as well as or better than their current offerings. This is a common outcome, perhaps the predominant outcome (Rouse, 1996, 2006).

The transformation framework in Figure 1 suggests how enterprises might pursue transformation (Rouse, 2006). Ends can range from redefining markets, as done by Amazon and Wal-Mart, to providing broader or new offerings, to changing perceptions of offerings, to decreasing costs of offerings. More examples can be found in Rouse (2006). The 12 case studies discussed in this article involve automobile companies that focused primarily on offerings. For example, Chrysler and Ford expanded their vehicle offerings, trying to emulate Alfred Sloan’s business model at General Motors.

Companies also had to address perceptions and costs of offerings. Perceptions were associated with brand identity and pricing, which had implications for production costs. A major finding of this article is the inability of companies to balance the tension between differentiated offerings and economies of scale or market demands.

Some of the more recent case studies also focused on the ends of reducing costs by sharing production lines, chasses, and parts, such as pursued by the Big Three. Many of these efforts resulted in undermining perceptions of vehicle offerings, effectively rendering the vehicles badges as meaningless. The overall result is the failure of these brands.
The scope of these endeavors was usually focused on an automobile brand, i.e., an organization in Figure 1. The means was usually strategy, while more attention to technology, processes, and skills seemed to be less than warranted. For example, quality problems with the new vehicles were sometimes a significant issue.

This article proceeds as follows. We first provide a brief review of the evolution of the automobile industry from its founding until present time. We then present the broad context of the 12 case studies discussed in this article. Our overall case-based methodology is then reviewed—with each case briefly summarized in the Appendix. Each case analysis is then presented and causes of failures discussed in the context of a four-level characterization of the influences of the economy, market, company, and product. Dominant causes are summarized and future work is discussed.

2. AUTOMOBILE INDUSTRY

By 1898, there were 50 automobile companies. The first commercially successful American-made automobile was the 3-horsepower Oldsmobile in
1901. This automobile was named after Ransom Eli Olds, a pioneer in the automobile industry. Between 1904 and 1908, 241 automobile companies went into business. After impacts of major historical events, like the Great Depression, World War II, the energy crisis, and the late 20th century’s globalization, the number of American automakers shrank to just three. The number of American automobile brands decreased dramatically.

Interestingly, competition among technologies was not fully resolved at the turn of the century, as evidenced by the fact that, at that point, 40% of U.S. automobiles were powered by steam, 38% by electricity, and 22% by gasoline. Also of interest, the automobile was not an instant success in the mass market. Henry Ford produced eight versions of his cars—models A, B, C, F, K, N, R, S—before he was successful with the Model T in 1908. With the Model T, the mass market could now afford to own an automobile.

James Womack, Daniel Jones, and Daniel Roos chronicle the subsequent development of the automobile industry in “The Machine that Changed the World” (1991). They emphasize that Ford’s success in producing a car for “everyman” was due to his transformation of manufacturing from centuries of craft production into the age of mass production. Forty years later, Eiji Toyoda and Taiichi Ohno in Japan transformed mass production into lean production.

The problem with craft production—despite its appealing images of hand-crafted quality products—is that it costs too much. The prices of the resulting products are too high for most people to afford. By employing extreme specialization, Ford was able to substantially reduce costs and thereby enable mass markets.

A highly skilled workforce, extreme decentralization, general-purpose tools, and low production volumes characterize craft production. Since no company could exercise a monopoly over these types of resources, it was very easy to enter the automobile business in its early years. Consequently, by 1905 hundreds of companies in Western Europe and North America were producing small volumes of autos using craft techniques. The high costs of this method of production naturally resulted in high prices and an automobile market limited to the upper middle class and higher.

The impact of mass production can be measured in terms of the average cycle time—the average time before a particular production worker repeated the same operation. Prior to Ford’s innovations (discussed below), the average cycle time was 514 minutes. With interchangeability, simplicity, and ease of attachment, the average cycle time was reduced to 2.3 minutes. In 1913, Ford added continuous flow assembly lines and the average decreased to 1.2 minutes.

Ford also perfected the interchangeability of workers. Mass production jobs were so simplified that they only required a few minutes of training.
Consequently, untrained and unskilled workers could readily fill these jobs. Of course, industrial engineers had to think through how the parts would all come together and just what each assembler would do. In this way, the engineers became the “knowledge workers” and replaced the machine shop owners and factory foremen of the earlier craft era.

Henry Ford founded the Ford Motor Company in 1903 (Watts, 2006). By the spring of 1905, the company was producing 25 Model A vehicles per day and employing 300. The Ford Manufacturing Company was incorporated on November 22, 1905 to make profits on parts rather than continue to outsource parts to the Dodge Brothers. Further, 8,423 Model N vehicles were sold in 1906–1907. Ford was determined to produce a reliable, low-cost car affordable for the working class people.

The Model T was announced in the autumn of 1908 and by 1920 accounted for almost half of the vehicles in the U.S. It sold for $850 initially, but the price fell in subsequent years, e.g., $500 by 1913, when the “assembly line” was developed. Production surged from 82,000 to 189,000. It stood at 585,000 in 1916, one million in 1921, and two million in 1923. Ford succeeded at “Taylorism without Taylor.”

In early 1914, Ford announced a starting wage of $5 per day, roughly double what it had been, while also reducing the workday from 9 to 8 hours. In 1919, Ford produced 750,000 vehicles or 40% of the American total. By 1916, the Model T was selling for $345. After 1923, sales of the Model T started to decline due to GM’s new offerings.

By the mid-1920s, GM was offering yearly model changes. Chrysler completed the “Big Three” in 1925, competing with its low-priced Plymouth. Ford kept cutting prices, but GM’s market share increased while it was raising prices! Ford did not believe in paid advertising or selling cars on credit. He changed his mind in light of declining sales.

Ford refused to accept the idea that the Model T had run its course. Finally, in the summer of 1926, he agreed to develop a new model. Henry insisted on giving the public what he knew they needed, while his son Edsel fought to give the public what they wanted. Production of the Model T was terminated in June of 1927. After $250 million of retooling, the first Model A was produced on October 21. It ranged in price from $385 to $570. By 1933, Ford had dropped to third place among the Big Three and was hemorrhaging money. Ford introduced the V-8 in 1932. It was well received, but cars were not selling during this period.

The overall result of Ford’s mass production was extreme centralization of control. His penchant for this type of control—centralized in him—became a limiting factor in the growth of his company. John Staedenmaier, in the article, “Henry Ford’s Big Flaw,” Invention & Technology (1994), discusses the ways in which Ford’s obsession with control tended to suffocate the successful company he had created. Fortunately, as is typical, the growth of this thriving industry did not depend on one person.
Alfred P. Sloan provided the next innovation. Sloan was hired by William Durant, founder of General Motors, in 1923 to straighten out the enterprise that he had created by acquiring several car-manufacturing companies. Sloan added professional management to Ford’s basic concept. Professional financial and marketing specialists were added to the engineering specialists created by Ford. Sloan also standardized the internal systems and components of cars, further lowering costs. The overall result for the industry was a revolution in marketing and management. Sloan’s hierarchy of brands was in contrast to Ford’s one size fits all philosophy. Sloan would do for mass marketing what Ford had done for mass manufacturing.

Peter Drucker (1946), in effect, memorialized Sloan in his book, “Concept of the Corporation.” He discusses the nature of capitalism, organization for production, decentralization, and the roles of management and workers. His outline of the nature of a large-scale corporation, in this case General Motors, became a model for many other large businesses in a wide variety of domains.

Ford lured people into the routine and boring jobs of mass production by high wages—the infamous $5 per day. The nature of these jobs caused people to focus on work conditions, including seniority and job rights in the face of cyclical auto markets. As a result, they borrowed an innovation from the railroads—job-control unionism. The combination of Ford’s factory practices, Sloan’s marketing and management techniques, and organized labor’s control of job assignments and work tasks resulted in the final maturation of mass production.

Womack and his colleagues (1990) use this understanding of the emergence and maturation of mass production as a backdrop against which Japan’s innovations in lean production are described. They emphasize the inability of the Japanese culture to adapt to mass production. In particular, Japanese requirements for life-long employment rendered impossible the large hirings and layoffs typical of mass production. Given that people were employed for life, it only made sense to invest in them so that they had multiple skills that would benefit the company.

Based on this point of view, the pioneering work of Taiichi Ohno at Toyota led to the paradigm of lean production. He began by experimenting with flat, team concepts. Ohno also reconsidered the supplier-assembler relationship and decided that the goals of low cost and high quality could best be achieved by a close working relationship and long-term commitment. He also developed a new way to coordinate the flow of parts within the supply system on a day-to-day basis, which is called the just-in-time system or “kanban” at Toyota. The principles of lean production were fully worked out by the 1960s. However, it took until the 1980s for the world to be at the same point in the diffusion of lean production that it was with mass production in the 1920s.
Automobiles have tended to reflect the personalities of the times, as illustrated in Paul Ingrassia’s “Engines of Change” (2012). This phenomenon can be clearly seen in Henry Ford’s ubiquitous Model T. This car was very practical. Almost everyone could afford one, and almost everyone could maintain it himself or perhaps herself (Watts, 2006). However, only the rare aficionado considered the Model T a work of art.

Perhaps the greatest American personality change can be seen between the beginning and the end of World War II. The legacy of the Great Depression was replaced by the optimism of military victory and global leadership. This can be seen in the contrast between the 1940 Ford Coupe and the 1949 Mercury Coupe. Due to the war, these cars were only six model years apart. However, utilitarianism was now balanced by styling and glamour.

A recent study contrasted the best ten cars and the worst ten cars over the last half of the 20th century (Hanawalt and Rouse, 2010). The winners included the 1955 Chevrolet Bel Air, 1964 Pontiac GTO, 1965 (or 1964 1/2) Ford Mustang, and seven others. The losers included the 1958 Ford Edsel, 1960 Chevrolet Corvair, 1971 Ford Pinto, 1975 AMC Pacer, and six others.

Statistical analyses of expert ratings of each car along numerous attributes showed that two factors clearly differentiated winners from losers. First, successful cars emerged from processes driven by projected market requirements that were accurate for when the car would make it to the market rather than when the car was first envisioned. In other words, expectations of future customer desires were on target.

Second, success was achieved by adoption and execution of development processes that resulted in the right car at the right time. Thus, the accuracy of projected customer desires was not undermined by management egos or financial dictates. In addition, there was often a champion or keeper of the vision who was able to surmount various corporate hurdles.

One might question why an automobile company would envision and create cars in any way other than in accord with these two findings. The answer is that the large successful automobile companies, basking in the post-World War II market boom, became convinced that they knew what customers wanted—and what they would accept—better than customers knew. It took these large insular enterprises many decades to come to terms with their misperceptions and delusions (Rouse, 1996, 1998).

3. CONTEXT OF CASE STUDIES

Six American automobile companies with 12 brands were involved in this study. Auburn Automobile Company owned Duesenberg and Cord. American Motors Corporation (AMC) had Rambler. Studebaker Corporation owned Studebaker and acquired Pierce-Arrow and Packard. For the Big Three, General Motors Company had LaSalle, Oldsmobile, and Pontiac.
Ford Motor Company had Mercury. Chrysler Corporation had mid-priced Desoto and entry level Plymouth. To obtain more information about those 12 cases, please see the Appendix. The 12 case studies presented in this article address competition in the automobile industry during three interesting and quite different periods. The first period is around the 1930s. The industry was growing rapidly. Sloan’s annual model changes and diverse offerings were challenging the competitors. The Great Depression emerged at the end of this period.

The second period is around the 1960s. The end of World War II saw rapid growth in the automobile industry following the suspension of production of automobiles during 1943–1945. The Big Three—General Motors, Ford, and Chrysler—started to dominate and smaller firms scurried to compete. Any good idea was rapidly copied by the Big Three, rendering success fleeting.

The third period is around the 2000s. Globalization of the automobile industry is in full bloom. The Chevy Impala and Ford Galaxy have long been completely eclipsed by the Toyota Camry and Honda Accord as the most popular cars. Brand differentiation has disappeared, driven by relentless cost cutting as well as understanding of aerodynamics and fuel efficiency.

The Great Depression, World War II, and globalization created quite different economic climates during these three periods. However, three central issues persisted. First, how can a company’s range of offerings appeal to both entry-level buyers and, as they succeed in life, eventual higher-end buyers? Alfred Sloan seems to have mastered this issue, but it is not as straightforward as it seems—even for Sloan.

Second, how can managers adjust their company’s strategy for its different product levels during varied economic or market situations? Perhaps, Pierce-Arrow, a great luxury brand, could stay alive longer, if it also delivered cheaper models during the Depression. Packard successfully delivered the cheaper One-Twenty in 1935. Perhaps Packard could still be alive, if it refocused on its up-scale models during the post-World War II boom. Mercury was more like a Lincoln after World War II, rather than a Ford after the 1980s. Thus, the companies knew how to adapt in different environments and remained successful, while others were eliminated.

Third, how can costs be reduced via common production lines, chasses, and parts, while also retaining the distinctiveness of brands that earn customer loyalty? The Cadillac Cimarron represents the extreme of this issue, whereby GM managed to produce one of the worst cars in the past 50 years by rebadging a Chevrolet as a Cadillac with a $10,000 increased sticker price that fooled very few customers (Hanawalt and Rouse, 2010). The extreme of this practice adopted by the Big Three managed to destroy several distinctive brands, apparently not thinking that customers would notice.
In each of the three periods, we focus on four brands that were withdrawn from the market. Each of these brands was intended to provide a strategic advantage to the company and thereby transform their competitive position. In all cases—12 in total—the transformation failed. In many cases the company disappeared along with the brand. In other cases, the company continued, hobbled for some time by squandered resources.

4. METHODOLOGY

This research involved analysis of both data and case studies. Data included sales volumes, vehicle costs, etc. Case studies were drawn from three sources. First, there is a rich literature on the history of the automobile industry, including, for example, “The People’s Tycoon” (Watt, 2006), “The Machine That Changed the World” (Womack et al., 2007), and “Engines of Change” (Ingrassia, 2012). Second, and significantly more important to this study, were newspaper archives, particularly the *New York Times*, the contents of which dates from 1851. Lastly, some websites were used to achieve more comprehensive explanations. These are listed in the ‘Other Sources Consulted’ section.

The case study methodology employed was similar to what we used for the “Car Wars” study (Hanawalt and Rouse, 2010), as well as broader studies of technological change (Rouse, 1996, 2006, 2014). For cases involving events that happened 50, 100, or 150 years ago, careful piecing together of the evidence is required. Corroborating evidence is also highly desirable, but cannot always be found. Then, we look for consistency across cases.

By using the production volume data for those 12 different car brands, four heat maps (Figures 2a–d) were created to show the trend of overall automobile production and historical events that influenced the automobile market in the three time periods of interest. By analyzing production trends, the influences of these events can be seen. The volatility of production volumes can be explained, to an extent, by external events, but by no means completely.

As elaborated below, we found four levels of explanations for these 12 failures—economy, market, company, and car. Explanations specific to companies and cars were derived, for the most part, from the *New York Times* archives. From 299 articles directly related to those 12 automobile brands, we identified 89 articles that reported on the failure of one or more of the 12 automobiles. Thus, there was an average of a bit over seven articles per vehicle.

Explanations of the broad impacts of the Depression, World War II, and globalization on automobile markets were readily available from sources, such as Drucker (1946), Ingrassia (2012), Rouse (1996), Watts (2006), and
FIGURE 2  (a) Production volumes for 12 brands plus overall production. (b) Production volumes for four cars withdrawn in the 1930s. (c) Production volumes for four cars withdrawn in the 1960s. (d) Production volumes for four cars withdrawn in the 2000s.

Womack et al. (1991). Of course, many of the newspaper articles also chronicled economic trends and events in terms of their impact on the automobile industry.

5. CASE ANALYSES

Our analyses determined why those brands attempted to transform their offerings during each of the time periods of interest and how they failed to achieve success. First, production volume data are used to show the time period when a company had sales problems. Then a four-level characterization of factors that influence success or failure is introduced to provide an integrated view of the causes of failure. Finally, the transformation framework is used to provide deeper explanations of failures and within the company level.
5.1. Production Volumes

Production data mainly came from websites, such as Federal Reserve Economic Data, Wikipedia, and other historical documentation websites related to those 12 brands. All of those website links are shown in the ‘Other Sources Consulted’ section of the Appendix. Those data are portrayed in Figures 2a–d as heat maps to enable comparisons among different brands. Data were compiled for all 12 car brands as well as overall automobile production in the American market. The data for the 12 car brands were separated into the 3 time periods of interest, 1930s, 1960s, and 2000s. The purpose of using annual data is to more clearly show impacts of historical events and compare production volumes across different car brands. Those bold rectangles in Figures 2a–d emphasize some remarkable events in the U.S. automobile market, as well as for those 12 brands. Those rectangles will be explained below, denoted by figure number and time period in parentheses.

Figure 2a shows overall annual production together with production volumes for the 12 brands. Figure 2b shows data for the four brands withdrawn from the market around the 1930s. Figure 2c shows data for the four brands abandoned around the 1960s. Finally, Figure 2d shows production volumes for the four brands that ceased production around the 2000s. The darker color denotes higher production volumes. You cannot compare the production levels across different figures because they have different production baselines. However, you can compare production units by darkness in any single figure. Some data points could not be found here, such as data for a few years for Duesenberg, few years for Cord, some early years for Pierce-Arrow, sales data in U.S. market before 1913, and data for U.S. market between 1963 and 1967. Fortunately, this had very limited impact on our analyses, results, and conclusions.

5.1.1. Cars Withdrawn in the 1930s

GM introduced annual model changes and diverse models at the end of the 1920s. GM’s Alfred Sloan found gaps among GM’s offerings, so GM offered Pontiac, La Salle, and other companion marques to broaden its market offerings from five to ten brands. In order to compete with this strategy, some automakers also introduced new brands to broaden the market addressed. For example, Chrysler debuted DeSoto in 1927 and Plymouth in 1928. The increasing diversity of vehicles appeared to quickly increase customers’ willingness to buy vehicles. However, the stock market crash induced the Great Depression, which was the most important economic event in the 1930s. For our 12 car brands, only Plymouth had increasing sales during the Depression (Figure 2d, 1929–1933). The U.S. auto market seriously declined due to the shrinking financial market and customer’s purchasing power (Figure 2a, 1929–1933). Sales of most brands were severely influenced and dropped dramatically.
Sales of Duesenberg, Cord, Pierce-Arrow, and LaSalle suffered during the Depression. Duesenberg and Cord had the same parent company, the Auburn Automobile Company. Their factories were closed after Auburn’s financial collapse in 1937 (Figure 2b, 1937). Pierce-Arrow consolidated with Studebaker in 1928, but sales of Pierce-Arrow were hurt by the bad economic situation and Studebaker’s poor production skills (Figure 2b, 1928–1933). In 1938, Pierce-Arrow’s properties were sold at auction. Sales of La Salle grew sluggishly after the economy began to recover in 1933 (Figure 2b, 1933–1938). La Salle was abandoned in 1940 because it had become a direct competitor of Cadillac and failed to compete with non-GM brands. Although the four car brands of interest in this period had different reasons for failing, their financial situations were all weakened by the Depression (Figure 2a, 1929–1933). After 1933, the economy began to recover and the auto market grew again, gradually increasing until the 1937 recession (Figure 2a, 1934–1937). After 1938, sales in the American auto market continued to increase again until America entered World War II (Figure 2a, 1939–1941).

5.1.2. Cars Withdrawn in the 1960s

American automakers did not produce any civilian vehicles during 1943–1945. After this period, the auto market became a sellers’ market. Sales escalated from 1946 to 1950 (Figure 2a, 1946–1950). During the 1950s, sales fluctuated due to customer demand, material shortages, and recessions (Figure 2a, 1950–1958). In this period, small producers, like Rambler, Packard, and Studebaker, started to struggle to compete with the Big Three. After the Big Three started a sales war in 1953, they attained much greater market shares and began to dominate the American automobile market. Mercury, Pontiac, Oldsmobile, and Plymouth had much higher sales units due to the Big Three’s marketing power and the growth of the modern automobile market (Figure 2a). Smaller manufacturers tried to combine with each other to survive, but nothing seemed to work. They did not have sufficient market share or financial power to stop the Big Three’s quick adoption of any innovations of the smaller players.

Packard merged with Studebaker in 1954, but the resulting poor quality caused sales to drop quickly (Figure 2c, 1955–1958). The Packard factory closed just 4 years later. An important event during this period was the 1957 recession (Figure 2a, 1957–1958). DeSoto was seriously hurt by this recession, plus Chrysler’s careless market positioning of DeSoto. This brand’s sales quickly shrunk (Figure 2c, 1957–1961). American Motors Corporation was formed by Nash-Kelvinator and Hudson Motor Car Company in 1954, in hopes of improving competitiveness. To compete with the Big Three, AMC reproduced the Rambler in 1958. The Rambler led compact car production for a few years. Even after the Big Three entered the compact car market in
1960, Rambler still maintained good sales (Figure 2c, 1959–1969). However, Rambler’s management decided to downsize market offerings in 1969 to compete with the Big Three head to head. Studebaker’s compact Lark failed to contend with the Big Three’s compact models and lost market share only one year after its introduction (Figure 2c, 1960–1966). This reduced the competitiveness of Studebaker and intensified its poor financial situation. The American factory of Studebaker was closed in 1963 due to long-term financial problems and failing competition with the Big Three. Three years later, its Canadian factory was closed too. Under the economic pressures and the Big Three’s dominance, many brands ceased production or merged with each other to gain more market power around the 1960s.

5.1.3. Cars Withdrawn in the 2000s

Rapid expansion of the interstate highway system and equally rapid suburbanization beginning toward the end of the 1950s greatly expanded the America auto market. Innovations, such as American muscle cars, helped Pontiac, Oldsmobile, and Plymouth to achieve great sales records from the mid-1960s until the first oil crisis in 1973 (Figure 2d, 1964–1973). With the oil crisis of 1974, American automakers began to reduce production of high fuel consumption models. The market for cheaper and lower consumption models increased. When German and Japanese brands succeeded in these markets, the seeds of globalization were sown.

The Big Three focused on reducing costs by sharing almost everything across brands. Badge identities became greatly diluted. Plymouth’s appeal declined due to identity dilution (Figure 2d, 1974–2001). Because of Oldsmobile’s innovation reputation, it still had great sales from the 1970s to 1980s (Figure 2d, 1974–1990), despite the badge dilution. Pontiac’s sale volumes maintained an acceptable level until the 2000s building on its performance car image that began in the mid-1960s (Figure 2d). Mercury had a fuzzy identity from the beginning. It was sometimes more like Lincoln and other times more like Ford. Its sales were steady, although sales were also influenced by a few recessions before 2000 (Figure 2d). After 2000, its sales started to continuously decline until Mercury production was shut down in 2011.

The Big Three started to share platforms and parts across brands, effectively massively rebadging to the extent that the identities of brands virtually disappeared. These nearly identical models confused customers. The Big Three shared too many parts to reduce costs and failed to achieve good car quality to compete with Japanese and European manufacturers.

There are two reasons why this influenced automobile quality. When parts are used in different models, they have to interface with legacy parts that are unique to each model. Such interfaces provide greater opportunities for malfunctions and performance deficiencies. Standardizing some parts but not others involves tradeoffs between costs and performance. In the
FIGURE 3 Four levels of explanation of failure.

extreme, quality issues might be manageable by making all parts common across models, but then all cars will be identical as was the case for the Ford Model T. The Big Three have great difficulty managing such tradeoffs.

The American automobile industry had its highest production volumes from the 1960s to 1980s, but started to dramatically lose market shares after 1990 (Figure 2a, 1990). The burst of the Internet bubble in 2000 (Figure 2a, 2000) resulted in a depressed auto market (Figure 2a, 2001–2006). American automakers were under enormous financial pressures. Chrysler abandoned Plymouth in 2001. GM closed Oldsmobile’s factory in 2004. The 2007 financial crisis (Figure 2a, 2008–2010) exacerbated their financial problems. Consequently, Pontiac and Mercury production stopped in 2008 and 2011, respectively.

5.2. Four Levels of Explanation

The failure of each of the 12 brands was defined by the decline in sales volume and the eventual ceasing of production. Analyses of reports from the New York Times archive, as well as other online resources, enabled identifying the extent to which the factors in Figure 3 influenced the failures of these 12 brands. Attempts to transform can be thwarted by the overall economy, the market in which the company operates, the company itself, and the product or service being offered—in this case, an automobile. Based on the transformation framework in Figure 1, costs, perceptions, and offerings are associated with the vehicles offered to the market. It is clear from the case data reviewed that decisions about particular brands could not be made
independent of the overall set of vehicle offerings as well as the financial state of the company. The companies’ offerings need to compete in the automobile market, which could be booming or bogged down by recessions. Finally, the economy provides an overall context for the market, including Depression, war, and globalization.

The economy is the highest-level explanation. The economy directly impacts the strength of the automobile market. At this level, war is an influencing factor due to the redirecting of manufacturing capacities. Globalization is another economy-level influence, resulting in increased competition and perhaps increased speed of technological updates. Obviously, financial market crises, such as the Depression, have a critical impact on a company’s survival. Energy market crises also changed technology trends and presented new challenges for automakers.

The auto market is the environment of all automakers. Competitors are separated into two groups, external and internal. External competitors are those that do not have financial relationships with each other. Internal competitors belong to the same parent company. Auto-market saturation and market declines are considered here in that they lead to the decline of revenues and profits, and consequently cause financial problems.

The company level is the most significant element of this four-level characterization. A company’s behavior directly affects its future in that it makes decisions about how the company will compete within the market environment and what kind of cars it will produce in the future. The influence of leadership in terms of strategy changes is powerful because it determines the next steps of a company. These decisions might include stopping production of a brand gradually or immediately. Poor management decisions can have many negative impacts, such as loss of dealers, late delivery, quality decline, revenue and profit decline, and even curtailed production.

Dealer shrinkage will lead to inconvenience for customers and declining market share. It is hard to sell cars without dealerships. Indeed, most states prohibit direct sales from manufacturers to consumers. Even with increasing use of the Internet, the final sales transaction has to occur at dealerships.

A company’s financial problems can cause severe consequences because everything in a company depends on the capital and cash flow. Cost reduction initiatives that result in rebadging—and even de-badging—reflect poor management decision-making. The rebadged or de-badged brands tended to result in substantial quality problems that, in combination with the loss of brand identity, significantly diminished every model’s competitiveness.

When we talk about the automobile level of explanation, badging issues are very important. Yet, this factor is idiosyncratic because the kind of cars that will be produced is under the control of a company’s management. Cars cannot control themselves; they are just the victims of management. At the same time, the automobile level is very important because it is the crucial
connection between customers and companies. A car’s price, design, and quality directly determine whether a customer will choose it.

These four levels of Figure 3, and their factors within each level, provide headings for the columns in Table 1. This table summarizes the factors that influenced the failure of each transformation initiative. Our case-based approach did not allow accurate measurement of the influence of each factor. However, the historical patterns did allow for qualitative assessment of which factors were more important than others by counting how many brands each influence factor had impacted.

In Table 1 there are three time periods, each of which include four different brands. Some factors, such as war, had importance in a particular period. Other factors had importance for all of the periods. The number of factors having importance was cumulated for every brand and every different period. Finally, these importance numbers were added together in the last row to show the total importance. For example, if a factor influences all four brands during one period, the influence factor was counted as 4. If 12 brands in 3 different periods were all influenced by one factor, that influence factor was counted as 12. Those frequencies of influence factors were attached to those factors (as #N) in the next paragraphs.

Analyzing the influence factors in Table 1, some patterns can be identified. Consider the 1930s section of Table 1. There are some factors that had pervasive influence. They are financial market crisis (#4), improper management (#4), external competitors (#3), market decline (#3), and financial problems (#3).

The financial market crisis relates to the Great Depression, which led to the overall downturn of auto markets. Because of the economy’s problems, improper management led to more serious consequences than other times. Management tried to increase profits by introducing new lower-priced models, broadening market offerings or merging with other companies. However, market share was very fragile due to the limited purchasing capacities of customers. The auto market at this time had many competitors. The intensified competition resulted in decreasing profits. If a company over-committed its capital and created a bad financial situation, it could not overcome this difficulty when the macro economy had such huge problems. All in all, the failing pattern for the 1930s was improper strategies that magnified the economic crisis and led to failed responses to massive changes of market situations.

The American auto market endured the Depression and World War II, to encounter huge pent-up demand after the war. The 1957 recession had a significant impact on some automakers, but generally the economy was not the central reason for failing auto brands after 1960. From the 1960s section of Table 1, it can be seen that external competitors (#4), leadership change (#4), and improper management (#4) became the major reasons for brand failures.
<table>
<thead>
<tr>
<th>Brand</th>
<th>Economy</th>
<th>Auto-market</th>
<th>Company</th>
<th>Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duesenberg Cord</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Pierce-Arrow</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>LaSalle</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1930s</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Packard</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>DeSoto</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Studebaker</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Rambler</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>1960s</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Plymouth</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Oldsmobile</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Pontiac</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mercury</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2000s</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>
After 1953, smaller automobile companies were under enormous market pressures from the Big Three. They tried to change leaders or directly merge with each other to improve their competitiveness. However, considering the intensity of the market share competition, any careless market decision could lead to failure against the Big Three. Small producers’ market shares steadily decreased. The pattern of the 1960s was rapidly expanding dominant companies controlling most of the market. Decreasing market shares caused smaller automakers to lose revenue, profits, and competitiveness. Eroding profits and leadership changes became a positive feedback loop. Frequently changing leaders had very short-term perspectives. This led small producers into a negative spiral. In general, the smaller companies did not successfully compete with the Big Three’s expansion.

The dominance of the Big Three continued for decades. However, from the 2000s section of Table 1, one can clearly see that the situation became increasingly complex. Many factors played very important roles, such as globalization (#4), energy market crisis (#4), external competitor (#4), internal competitor (#4), leader strategy change (#4), improper management (#4), financial problem (#4), rebadged production (#4), and quality (#4).

The world was dramatically changed by globalization, which emerged in the 1980s. The American auto market became increasingly diverse due to challenges from foreign competitors, such as the Japanese and European automakers. Globalization also sped up the pace of technology development. Energy markets created more pressure on technologies associated with fuel efficiency. External competitors caused customers to place greater emphasis on vehicle quality standards.

All of those factors acutely increased industry standards and management difficulties. Producers had to improve quality while also reducing prices. The efficiency of enterprise operations became much more important, along with increasing quality standards. The Big Three tried to use platform-based production to reduce manufacturing costs. However, they went too far. GM’s offerings, for example, all started to look alike, in effect resulting in rebadging or de-badging.

The loss of vehicle identities caused increased internal competition. Failures to meet sales targets resulted in frequent leadership changes that undermined longer-term perspectives. Although American automakers attempted to learn new management and production methods to increase profits, the perennial failure to meet targets made the situation difficult to change. During the 2000s the Big Three each discontinued brands. GM withdrew two brands. The 2007 financial crisis resulted in bankruptcy for GM and Chrysler, while Ford had tightened its belt earlier. After that, they gradually adjusted strategies while the economy revived. Nevertheless, the essential problems associated with the management of these three companies remain works in progress.
5.3. Transformation Failures

Table 2 summarizes these 12 case studies of failure. The brands withdrawn during the 1930s represent failures of transformation during an unexpected enormous market fluctuation, which caused a major market decline. Simply improvement of offerings was not sufficient for a company’s survival. Facing the change in the market, companies did not have new market strategies to respond quickly, which led to companies’ financial problems. One brand, LaSalle, became the victim of Sloan’s tiered brands experiment. Indeed, the failure of LaSalle reflects GM’s overextension of the model from five to ten brands. Too much of a good thing did not work.

Three of the brands withdrawn in the 1960s represent failures to compete with the Big Three. Under strong competition from the Big Three, smaller automakers found it difficult to sustain competitive innovations. They failed to adopt competitive technologies and continually improve production processes. That led to failure of transformation and competition. Even with good ideas like the Rambler and the Lark, it was not possible to keep up with the Big Three’s evolutionary speed. Only one of the four cars studied, DeSoto, was produced by one of the Big Three. Its failure reflects Chrysler’s poor management of the strategy level of its tiered brands. Fuzzy market positions always confuse customers and hurt sales. Careful management of brand identities and pricing are critical to the success of the tiered model. When customers perceive positive brand identities and consider prices to be reasonable, the value of the car is improved. It was during this period that well-positioned vehicles, such as the 1955 Chevrolet, 1964 Pontiac GTO, and 1965 Mustang, all with competitive prices, distinctive styling, and/or performance characteristics, were enormous successes.

The four brands withdrawn in the 2000s all succumbed to similar problems. After foreign automakers improved their worker skills, production processes, and technologies, they finally began to change the whole market situation. To compete with the attractive qualities and prices of imports, especially from Japan, the Big Three wanted to reduce costs by adopting the platform model with a vengeance. The GM-10 platform, one case of Hanawalt and Rouse’s (2010) worst ten cars, made GM’s models share so many aspects across Chevrolet, Pontiac, Oldsmobile, and Buick that these four brands were virtually identical—and uncompetitive with the Ford Taurus. Too much focusing on costs led to the loss of badge identity and poor quality compared to the imports. Finally, the Big Three’s competitiveness started to steadily decline.

To explore the facets of enterprise transformation in more depth, see the case studies in Rouse (2006, 2011), as well as the many excellent articles in the Journal of Enterprise Transformation.
<table>
<thead>
<tr>
<th>Brand</th>
<th>Why attempted</th>
<th>What attempted</th>
<th>How attempted</th>
<th>Causes of failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duesenberg</td>
<td>Needed to increase sales to make company viable under pressure of Ford’s mass production</td>
<td>Transform from technology-driven to market-driven company; move away from focus on racing</td>
<td>Acquired by Auburn to increase offerings; increased chassis price despite Depression; attempted to update technology</td>
<td>Duesenberg visionary dies; brother wants to return to racing; Auburn company’s financial collapse</td>
</tr>
<tr>
<td>Cord</td>
<td>Wanted to fill gap in their market offerings under pressure of Sloan’s tiered policy</td>
<td>Broaden range of offerings to take advantage of price gap in market</td>
<td>Create lower priced luxury car; still expensive during Depression; invested in creating market enthusiasm for car</td>
<td>Poor transmission design delays delivery by 6 months after debut; Auburn company’s financial collapse</td>
</tr>
<tr>
<td>Pierce-Arrow</td>
<td>Needed to increase sales to make company viable under pressure of Great Depression</td>
<td>Broaden range of offerings to take advantage of price gap in market; focus on luxury car market</td>
<td>Acquired by Studebaker to increase range of offerings; continued to sell luxury car during the Depression</td>
<td>Lack of a low-priced model during Depression; poor quality cars produced by Studebaker; bad investments dilute capital</td>
</tr>
<tr>
<td>LaSalle</td>
<td>Wanted to fill gap in their market offerings under direction of Sloan</td>
<td>Broaden range of offerings to take advantage of price gap in market</td>
<td>Create lower priced luxury car; still expensive during Depression; offer better standard features than the more expensive Cadillac</td>
<td>LaSalle directly competed with Cadillac, but not with Packard; sales of Cadillac suffer; GM decided to withdraw LaSalle</td>
</tr>
<tr>
<td>Packard</td>
<td>Wanted to increase sales during under pressure of Great Depression and the Big Three</td>
<td>Broaden range of offerings to take advantage of price gap in market</td>
<td>Produce low and middle level models; abandon high end model; merge with Studebaker</td>
<td>Abandoned upscale model; brand identity lost; competition from the Big Three</td>
</tr>
<tr>
<td>DeSoto</td>
<td>Wanted to fill gap in their market offerings under pressure of Sloan’s tiered policy</td>
<td>Broaden range of offerings to take advantage of price gap in market</td>
<td>Separated DeSoto dealership from Plymouth without attention to overlap of price ranges with other company brands</td>
<td>Management’s decision to provide overlapping brands; subsidiary brands directly competed with each other (Chrysler-Dodge-DeSoto); sales dropped 70% after 1957 recession</td>
</tr>
<tr>
<td>Brand</td>
<td>Why attempted</td>
<td>What attempted</td>
<td>How attempted</td>
<td>Causes of failure</td>
</tr>
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<td>---------</td>
<td>------------------------------------------------------------------------------</td>
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<td>------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Studebaker</td>
<td>Needed to increases sales to restore profitability under pressure of the Big Three</td>
<td>Broaden range of offerings by merging with other companies; Restored sales and profits by providing small car offering; a niche market at that time</td>
<td>Merged with Pierce-Arrow and then Packard; partnered with Curtis Wright who gained control; focused on compact car offerings (Lark)</td>
<td>Offerings not competitive other than Lark; competition from the Big Three hurt Lark; lack of capital situation; frequent management changes</td>
</tr>
<tr>
<td>Rambler</td>
<td>Wanted to re-enter small car market to increase sales and profitability under pressure of the Big Three</td>
<td>Grew by revitalizing small car offering; a niche market at that time</td>
<td>Tried to compete with Big Three; phased out mid- and high-priced models to focus on low end; low end Rambler’s market position faded over time</td>
<td>Range of market offerings became too narrow; management’s decision to intentionally downsize</td>
</tr>
<tr>
<td>Plymouth</td>
<td>Needed to reduce costs under pressure of global manufacture</td>
<td>Shared original parts and production lines to decrease production costs and improve price competitiveness</td>
<td>Shared too many parts; badge diluted by mother company’s brands and also with other companies’ brands</td>
<td>Lost brand identity; poor quality control; mother company’s bad financial situation; intentional downsizing</td>
</tr>
<tr>
<td>Oldsmobile</td>
<td>Needed to reduce costs under pressure of global manufacture</td>
<td>Shared original parts and production lines to decrease production costs and improve price competitiveness</td>
<td>Shared too many parts; badge diluted by mother company’s brands and also with other companies’ brands</td>
<td>Lost brand identity; lost position as innovation platform within the company; poor quality control; mother company’s bad financial situation; intentional downsizing</td>
</tr>
<tr>
<td>Pontiac</td>
<td>Needed to reduce costs under pressure of global manufacture</td>
<td>Shared original parts and production lines to decrease production costs and improve price competitiveness</td>
<td>Shared too many parts; badge diluted by mother company’s brands and also with other companies’ brands</td>
<td>Lost brand identity; diluted image as performance car; poor quality control; mother company’s bad financial situation; government pressure during economic crisis</td>
</tr>
<tr>
<td>Mercury</td>
<td>Needed to reduce costs under pressure of global manufacture</td>
<td>Shared original parts and production lines to decrease production costs and improve price competitiveness</td>
<td>Shared too many parts; badge diluted by mother company’s brands and also with other companies’ brands</td>
<td>Lost brand identity; fail to achieve an image as a bargain Lincoln; poor quality control; poor sales; mother company’s financial situation during economic crisis</td>
</tr>
</tbody>
</table>
6. CONCLUSIONS

This article has discussed the demise of 12 automobile brands over the past century. The companies associated with these brands attempted to manage their offerings by broadening, narrowing, focusing, or switching. Due to a variety of factors, characterized in terms of four levels of explanation, these brands failed. The companies, like LaSalle, DeSoto, and Studebaker, tried to broaden offerings. But they ceased production due to failure to control the brand’s market position or a lack of competitiveness of new offerings. Companies like Rambler tried to narrow their offerings, but they lost flexibility in the market. Companies like Duesenberg and Pierce-Arrow tried to focus on their current offerings. But they failed to consider the economic situation and consumers’ demands as a whole. Companies like Plymouth, Oldsmobile, Pontiac, and Mercury were successful examples of broadening offerings, but when they needed to focus on current offerings, they did not adapt fast enough to satisfy customers’ new demands, like quality and energy efficiency. The companies like Packard tried to switch offerings from one scale to another. Packard shifted from a luxury brand image to lower-end vehicles. It is difficult to change customers’ perceptions. And it is even more difficult when a company does not pay sufficient attention to it.

To a great extent, these failures represent inabilities to balance the tension between differentiated offerings and economies of scale or new market demands. Compared with Packard’s success after the Great Depression, Pierce-Arrow failed because it did not produce affordable models, but only focused on the shrunken luxury car market. The success of new market offerings can depend on the health of the economy. As we see, success requires that offerings follow market directions.

Making all cars identical results in the lowest material and production cost. Because of the affordability, customers would like to buy those types of cars. You can trace this phenomenon back to the adoption of mass production. As the Model T exemplifies, customers loved the Model T, particularly its price, for almost 15 years. However, price is not the only thing customers consider. Profit margins are better when customers find brand identities appealing and the functions and features associated with those identities are worth the increased price. After Sloan delivered more automobile choices in terms of color, style, and equipment, simply reducing production cost did not necessarily drive the most sales anymore.

Alfred Sloan was a master at managing this balance, although he did manage to briefly overdo differentiation. More recently, however, GM as well as Ford and Chrysler lost this skill. The hubris to offer the market completely undifferentiated, poor quality vehicles clearly reflects a classic strategic delusion (Rouse, 1998). The mindset, gained during the heydays
of the 1950s through 1980s, led these companies to fail to identify their true strategic positions (Rouse, 1996). Enormous amounts of good will and money were squandered in the process.

In contrast, the Japanese automakers broadened their offerings one after another while the Big Three were suffering with their cumbrous brand ranges. Toyota introduced Lexus in 1989. Honda introduced Acura in 1986. Nissan introduced Infiniti in 1989. These brands are doing very well. This shows that broader offering ranges still can help a corporation achieve greater market share. But there are two differences between American automakers’ regress and Japanese automakers’ progress. One is Toyota, Honda, and Nissan do not have overlapping luxury brands. Second, the key for them in winning this campaign not only comes from simply broadening market offerings, but more importantly from better quality control.

In summary, enterprise transformation is no longer only about changing or improving offerings. Delivering new offerings is only one level of change. Balancing offerings to adapt to market perceptions and economic/market changes is a more important strategic imperative. A good example is Honda. After the real estate bubble burst in 2008, all companies but Honda saw a substantial drop in sales. Honda was able to immediately shift from production of higher-priced Accords to lower-priced Civics, on the same production lines, and experienced an increase of sales during this period. Company success is much more sensitive to management decisions than market fluctuations and economic situation changes. Leaders’ decisions can cause the demise of a great brand or vice versa. Furthermore, understanding competitors’ movement is very important for a company or brand’s survival. Finally, keeping a healthy financial situation and having a positive customer image are great keys to success.

7. LIMITATIONS AND FUTURE WORK

We used the case study method in this article because production numbers explain “what” happened to vehicles, but such numbers cannot explain “why” these decisions happened. Another reason is that comparisons across more than 100 years do not allow for the possibility of talking with experts or doing a survey. Nevertheless, the case study method has its drawbacks. First, the perspectives summarized from the New York Times inevitably are based on the perceptions of the authors of these articles. Second, data reported in any particular article are seldom comprehensive. Third, information is less consistent because it comes from many different articles. The overarching reason for using the New York Times archive is the availability of articles from 1851.
Another limitation of this article is the measurement of influence factors in the four level explanations, which was based on simply counting phenomena. That is because those influence factors are on different scales and units. Some of factors are very abstract. Considering that we cannot access the authors of the *New York Times* articles, we cannot ask them for ratings or weightings of factors. Thus, we are limited to ordinal qualitative results. We are currently working to overcome this limitation by fitting consumers’ utility functions to automobile purchases, including functions and features purchased over time. The wealth of data available for the automobile industry, and the fact of new models each year, make this much more tractable than for other vehicles and systems.

**REFERENCES**


**APPENDIX: CASES AND SOURCES**

**1930s**

*Duesenberg*

Duesenberg was a famous racing car company founded by the Duesenberg brothers, Fred Duesenberg and August Duesenberg, in 1913. After Duesenberg won the Indianapolis 500 in its second year, Duesenberg frequently achieved successes in different races. In 1920, the Duesenberg brothers began to produce a passenger car. Although they tried to hire other people to help them sell the car, in 1922 only 150 Model A’s were manufactured and business became worse later. In 1924, the company went into receivership. Although Duesenberg had a glorious history in the racing car arena,
it needed to transform the enterprise to make the company viable. In 1926, Duesenberg was acquired by the Auburn Automobile Company attempting to transform Duesenberg from a technology-driven to a market-driven company. The Model J was introduced in 1928. Because the Great Depression hit the American economy in 1929, Duesenberg produced only 200 units in 1929 and another 100 cars the next year. Auburn suffered a lot due to the Great Depression (NYT, Aug. 6, 1937b). During the Great Depression, Duesenberg increased the chassis price to replace lost sales. Fred Duesenberg died in 1932 when he was designing a new transmission for the Model J. The leadership change resulted in the company’s staff losing confidence and motivation. After that, August Duesenberg led the company back to the racing car market. However, this choice of the quickly deteriorating racing car market led to a failure to upgrade technologies and reduce manufacturing costs. The consequence was a failure to compete with other companies. Although with the recovery of the economy the net loss was decreasing (NYT, Jan. 21, 1936a), Auburn had financially collapsed in 1937 due to E. L. Cord’s leaving (NYT, Aug. 8, 1937c; NYT, Aug. 9, 1937d). After the mother company’s bankruptcy, Duesenberg was closed in 1937 (NYT, Dec. 12, 1937f). The Duesenberg case shows that merging does not necessarily lead to successful enterprise transformation if it does not fundamentally change the company’s functions and activities.

Cord

Auburn’s president, E. L. Cord, introduced Cord in 1929 as a lower priced luxury model to fill a gap in their market offerings. The Auburn Automobile Company’s strategy was to offer Duesenberg as the top model, Cord as the middle one, and Auburn for entry level. During that time, many managers found that covering a wider market range could help a company improve profits. From 1929 to 1937 Cord only had two main models, L-29 and Cord 810. The L-29 was discontinued due to the Great Depression with only 4,400 sold. The sales of Auburn declined from $37 million in 1931 to $8 million in 1936 (NYT, Aug. 6, 1937b). The baby version of the Duesenberg, Cord 810, was one of the most famous American automobiles in the 20th century. Its novel design caused a sensation at the December 1935 New York auto show and helped Cord successfully establish new perceptions, but it was delivered to customers 4 months late due to its problems with its semi-transmission. More importantly, Cord took many orders at the auto show and promised Christmas delivery to customers, which it did not do (NYT, Apr. 12, 1936b). In 1937, president E. L. Cord was charged by Federal court with manipulation of the stock of the Auburn Automobile Company. He sold his entire holdings of stock in Cord Corporation, a holding company whose holdings included the Auburn Automobile Company and other
companies. In the same year, he gave up his executive position and terminated his career in the automobile industry (NYT, Aug. 8, 1937c; NYT, Aug. 9, 1937d). With Auburn’s financial collapse, Cord’s factory was closed (NYT, Dec. 12, 1937f). Cord became a victim of Auburn’s bad financial situation.

**Pierce-Arrow**

Pierce-Arrow was a famous luxury brand in American automobile history. Considering the revenue losses of Pierce Arrow in 1927 and increasing competition from bigger companies, president Myron E. Forbes saw industry competition as more and more intense. As the result, he urged stockholders to agree to the merger of Pierce Arrow and Studebaker to broaden the range of offerings (NYT, Jun. 30, 1928a). Stockholders of Pierce-Arrow approved the reorganization plan on August 8, 1928. This reorganization formed the fourth largest manufacturing group with total assets approximating $200 million (NYT, Aug. 8, 1928b). Considering Pierce-Arrow’s highly respected position and Studebaker’s big volume business, president A. R. Erskine was confident of maintaining and improving the company’s position (NYT, Sep. 2, 1928c). But the next year the American economy faced the Great Depression. People’s immediate problem was no longer choosing a model that was the best deal for them. Pierce-Arrow and Studebaker, as well as the whole American industry, went into a crisis. The problem not only came from the economy, but also from its partner, Studebaker, which went into receivership due to careless investments of its president, A. R. Erskine. In 1932, Pierce-Arrow gained control again by borrowing money. One year later the new model, Sliver Arrow, debuted in auto shows. However, because the Sliver Arrow’s body was built at Studebaker’s factory assembling low-end cars, typical luxury features were lacking and it failed to generate enough sales due to poor customer perceptions—even if enthusiasts really loved the car. In 1934, Pierce-Arrow’s operation was suspended for a half-month. The company’s financial position declined quickly. Pierce-Arrow later borrowed money a few times to invest in other niche markets, such as camper trailers. These hasty investments did not help save Pierce-Arrow. Poor sales and deficits led Pierce-Arrow to apply for protection of corporate assets at the end of 1937. They contemplated the new company would enter the medium-priced automobile market (NYT, Dec. 31, 1937g). However, the company became insolvent in the spring of 1938. After the almost $28 million in sales in 1929, Pierce Arrow experienced a down-hill spiral due to the collapse of the stock market and the big recession in business. It merged with another company, but did not improve its technology, production processes, and skill level of workers. It borrowed money, but failed to achieve enough sales. When Pierce-Arrow was closed in 1938, the value of the company had declined from $18 million in 1928 to $3 million (NYT, Mar. 29, 1938).
La Salle

Around 1927 General Motors’ CEO, Alfred P. Sloan, decided that there were some price gaps between his offerings. To fill these gaps and cover a wider range of the market, he created companion marques in hopes of gaining a greater market share by using this strategy of stratifying market offerings. La Salle was a companion marque of Cadillac offered in 1927 for bridging the gap between Buick and Cadillac. Because La Salle was a lower priced luxury car based on Cadillac’s high production standards, it became a trend-setting car immediately. But during the Great Depression it was still an expensive car. That led sales to drop to only 3,000 units per year. The Great Depression had a big impact on sales. By 1933 sales began to recover (NYT, Mar. 11, 1934; NYT, Oct. 24, 1937e) due to the economic rebound from deflation (NYT, Oct. 21, 1936c). Although sales began to recover, La Salle did not experience the same recovery due to competition from other companies, like Packard. Considering GM’s sales were still increasing in 1936, president Sloan had confidence that GM would sell more cars the next year. However, in 1937 material shortages led to strikes at GM, which injured the production of La Salle. Thirty-four of the 69 General Motors factories were closed by January of 1937 (NYT, Jan. 12, 1937a). By the end of the 1930s, La Salle had similar features to the Cadillac for attracting customers (NYT, Oct. 1, 1939a). La Salle had become a direct competitor of Cadillac. However, Cadillac-La Salle department’s orders were increasing with the recovering economy. They received 10,867 orders in 1939 compared with 1938’s 7,510 (NYT, Oct. 19, 1939b). The 1940’s deliveries still moved to a new higher level (NYT, Aug. 2, 1940a). Nevertheless, near the end of the 1930s the Cadillac department’s managers gradually found it was losing its market share to La Salle because customers thought it was not worth it to buy a more expensive Cadillac considering the high quality and better standard features of La Salle. In 1940, although La Salle’s sales continued to achieve a new record, considering market erosion for Cadillac and unsatisfactory sales due to failure to compete with external competitors, Cadillac decided to eliminate this companion marque and concentrate only on Cadillac (NYT, Sep. 28, 1940b).

1960s

Packard

Packard was well accepted as a great luxury car brand before 1932. The Packard slogan, “Ask the Man Who Owns One,” was a national byword. During the Great Depression, the luxury car market quickly contracted due to a sharp change in car-buying habits; Packard’s managers wanted to improve sales by broadening its market offerings (NYT, Jul. 13, 1958b). So Packard began to produce upper-medium-priced cars (Light Eight). The cheaper models helped Packard overcome the Great Depression and the
recession. Managers were enjoying the successes of this strategy. But the cheaper models had already begun to hurt the image of Packard’s upscale model. After World War II, the sales volume of the automobile market dramatically increased. All automakers had increasing sales including Packard. One important difference between Packard and other brands is that the strong market growth resulted in managers not scheduling new versions of upscale models and only focusing on production of mid-priced models to expand units sold. But other brands, like DeSoto, Studebaker, and Rambler, did not narrow their offerings. Packard’s limiting its offerings to the mid-priced market conflicted with Packard’s remarkable luxury image. Moreover, Packard entered the taxicab and fleet car market, which further diluted its brand image. Furthermore, fundamental elements of change, such as costs, skills, processes, and technology, were ignored during this transformation process, which dramatically weakened its competitiveness. As a result, sales started to decline. The president of Packard was forced to resign in 1950. Leadership changed again in 1952 with James J. Nance. President Nance started to produce the upscale models again. However, the high-end model (Caribbean) was upgraded slowly due to funding limitations. Considering the financial situation and growing competition from the Big Three, in 1954 Packard pursued a transformation by merging with Studebaker, expecting to achieve a larger market share (NYT, Jun. 23, 1954b). During that consolidation, capital was injected into Packard. Unfortunately, the new 1955 Caribbean reflected poor quality control and had mechanical problems because skill levels of workers, production processes, and technologies were not improved (NYT, Jul. 13, 1958b). That seriously hurt the perceptions of Packard and its sales. Under the guidance of Curtiss-Wright the Packard’s old plant was sold and the new plant was returned to Chrysler in 1956 (NYT, Feb. 9, 1954a). In the same year, president Nance left Packard and moved to Ford. After 1956, Packard’s cars looked like a very good Studebaker. Its luxury image and identity were totally lost. From 1954 to 1958, Studebaker-Packard had heavy losses (NYT, Nov. 13, 1959c). Under those great financial problems, 1958 was the last year for this great luxury brand (NYT, Jun. 21, 1957b).

DeSoto

Similar to GM in 1927, Chrysler released the lower price DeSoto in 1928 to fill in its market offerings. The next year Chrysler brought Dodge and now had two mid-price models at the same time. The sales of DeSoto remained at a high level compared with other brands. DeSoto broke the first-year sales record with 81,065 units in 1929 (NYT, Aug. 8, 1929). During the Great Depression, sales dropped back to around 20,000 units per year, but this was still acceptable for the market situation. Chrysler made
some poor decisions regarding DeSoto, such as switching the market position of Dodge and DeSoto during the Great Depression to boost Dodge’s sales and using Chrysler’s Airflow body on the shorter DeSoto wheelbase. However, DeSoto corrected them quickly. After World War II, the market was a seller’s market, so DeSoto sold many cars during those years. The sales units per year were around 100,000 units. However, from the early 1950s into the 1960s, Chrysler was under the influence of labor strikes, material shortages, and legal suits (NYT, Oct. 31, 1949; NYT, Jul. 11, 1953b). More important influences came from Chrysler’s management level. In 1952, Plymouth wanted to be a stand-alone dealership, and dealers were more willing to choose the better-selling and cheaper Plymouth than DeSoto. As such, Desoto’s dealership presence started to shrink. In 1955, Dodge moved up-market to DeSoto’s market range. Actually, during those years Chrysler’s five marques (Plymouth, Dodge, DeSoto, Chrysler, Imperial) were all competing against each other due to Chrysler’s careless management strategy. Further, in pursuit of the goal of saving costs, DeSoto started to look like a Chrysler, effectively rebadging DeSoto. As a result of these strategies, offerings were changed without regard for the perceptions of the DeSoto brand. Confused customers began to choose other brands. A big hit for DeSoto was the 1957 recession. In 1958, a sharp decline in automobile demand led to Chrysler suffering a 68.4% drop in earnings and DeSoto’s sales sank nearly 70% (NYT, Apr. 25, 1958a). That led top management to panic. After failing to recover sales, management actively diminished the position of DeSoto. Under pressure of management and financial problems, only 4 years after the 1957 recession DeSoto production was stopped (NYT, Sep. 4, 1960b; NYT, Sep. 24, 1960c).

**Studebaker**

Studebaker was a powerful automaker that could compete with GM or Ford before 1930. However, Studebaker went into receivership in 1932 due to president Albert R. Erskine’s careless investments. In 1933, Harold Vance and Paul Hoffman became the presidents. In the same year, Studebaker was back to profitability. After achieving bigger profits, Studebaker reorganized in 1935 under the help of the Lehman Brothers. The new model (Champion) helped Studebaker double sales in 1939. After World War II, the new Champion helped the Studebaker achieve sales records (NYT, Mar. 12, 1953a; NYT, Dec. 10, 1963b). After 1953, the Big Three triggered a sales war. Studebaker’s sales sharply dropped (NYT, Jul. 25, 1953c). In 1954, to compete with the Big Three, Studebaker merged with Packard and James J. Nance became the president (NYT, Jun. 23, 1954b). But James Nance left Studebaker-Packard in 1956 due to failure to achieve sales goals (NYT, Apr. 13, 1957a). Harold Churchill took the reigns and signed a two-year contract with Curtiss-Wright, an airplane company (NYT, Aug. 19, 1958d).
He planned to focus on producing compact models hoping to improve profits by entering a new niche market (NYT, Oct. 16, 1958e). After a few years’ financial deficits, in 1959 the Lark helped Studebaker obtain 130,000 unit sales and reduced a loss of $22 million to $11 million (NYT, Mar. 27, 1959a; NYT, Apr. 24, 1959b). However, after the Big Three introduced their own compact cars in 1960, which also impacted other smaller producers, Studebaker’s sales started to decline (NYT, Apr. 29, 1960a; NYT, Mar. 29, 1961). The president of Studebaker was changed again. The new president (Sherwood H. Egbert) continued to concentrate on the compact car market. Nevertheless, Studebaker was bothered by its bad financial situation, intensive competition from the Big Three, labor strikes, and media rumors (NYT, Nov. 25, 1958f; NYT, Jan. 18, 1962). The board began to lose confidence and had different ideas than the president. In 1963, Byers A. Burlingame replaced Mr. Egbert. In the same year, Studebaker’s U.S. plant was closed (NYT, Sep. 16, 1963a; NYT, Dec. 10, 1963c). Studebaker’s managers expected a market retreat and then a comeback to the U.S. market in the future. But in 1966 the Canadian plant was also closed (NYT, Mar. 5, 1966).

**Rambler**

The Thomas B. Jeffery Company produced the Jeffery automobile in 1900. Nash Motors Company bought Jeffery in 1917. Nash later dropped the Jeffery brand. In 1937, Nash and Kelvinator merged with each other. In 1950, the first Nash Rambler was designed as a compact two-door sedan. The motivation for producing the Rambler was the post-World War II economy and the Korean War’s steel quota policy. Similar to other automakers’ strategies under pressure from the Big Three, Nash-Kelvinator and Hudson Motor Car Company merged in 1954. The new American Motors Corporation (AMC) discontinued the Nash Rambler in 1955. From 1954, AMC struggled to compete with the Big Three. There was a sharp recession in 1957, which caused customers to pay more attention to smaller and more economical models. In 1958, trying to improve market performance, AMC reintroduced the Nash Rambler and renamed it Rambler American. After reentering the compact car market, the Rambler American as an American compact car helped AMC into the black for the first time since the merger of the Nash-Kelvinator and Hudson (NYT, Jul. 25, 1958c). Rambler built strong market perceptions of high quality, lower gas consumption, and, in general, a high-value economy car. After 1960, the Big Three entered the compact car market. While the American Rambler still earned good profits, President George W. Romney led Rambler towards diversification by sharing production lines, chasses, and parts to broaden market offerings. AMC decided to broaden its market offerings and entered the standard and full-size automobile market, working to create strong market perceptions of these new offerings. However, in 1963
George Romney left AMC to become Michigan governor. Roy Abernethy took the helm and switched the strategy to compete against the Big Three head to head (NYT, Jul. 25, 1965a) but failed to compete with the Big Three due to less marketing capability, fewer production facilities, and shrinking dealerships (NYT, Aug. 22, 1967; NYT, Apr. 13, 1968). Abernethy experienced decreased market shares and made a decision to intentionally down-size market offerings (NYT, Sep. 4, 1965b). That strategy made Rambler’s range of market offerings too narrow and lost market competitiveness and resilience. In 1967, Roy D. Chapin replaced Roy Abernethy. By 1968, Rambler only had the Rambler American in the market. After that, Mr. Chapin began to broaden AMC’s compact car offerings expecting to improve the sales situation (NYT, May 6, 1969a). For competing with Ford’s Maverick, AMC produced a new compact model, Hornet. For competing against imported cars and expecting to create a new niche market, AMC created other sub-compact car, Gremlin (NYT, Feb. 13, 1970). The Hornet replaced Rambler in 1969 expecting to change perceptions of AMC’s compact car, even though it still had reasonable sales volumes (NYT, Aug. 14, 1969b; NYT, Mar. 10, 1987).

2000s

**Plymouth**

Trying to respond to General Motors’ market strategy, Plymouth was created in 1928 as the lowest priced car to attract entry-level customers. Over the course of the first 6 years, a million vehicles were sold (NYT, Jul. 6, 2001c). By 1932, Plymouth had become No. 3 in sales, behind Chevrolet and Ford. It held that position in most model years throughout the 1930s, 1940s, and 1950s. Around 1960, Chrysler seemed to lose its way for a time (NYT, Jan. 22, 1995). But in the end of the 1960s, the situation became better due to some new offerings, such as the 1968 Road Runner. And after it introduced some high performance models in 1973, Plymouth sales climbed to its maximum of 766,000 units per year (NYT, Nov. 5, 1999c). By the 1970s, in a manner similar to other American automakers, Plymouth began to be rebadged with Chrysler’s subsidiaries, such as Dodge. Plymouth began to lose much of its identity. However, because Plymouth’s sales did not suffer, the company took this strategy further. As a result, it was rebadged with the Japanese automakers, like Mitsubishi, around 1980. That action started hurting sales because it failed to compete against Japanese automakers when the vehicles were almost identical (NYT, Nov. 14, 1991b). Japanese vehicles had better quality and lower prices, even if they had higher import taxes. After Plymouth introduced a minivan (Voyager) in 1983, unit sales seemed to be slowly recovering (NYT, Jan. 22, 1995). However, Chrysler had financial problems and continued to lose market share and competitiveness (NYT, Jul. 24, 1990). Another problem was Plymouth began directly competing
with Chrysler and Dodge (NYT, Nov. 14, 1991b). By 1989, slowly growing sales started to decline again. In 1992, Robert J. Eaton succeeded Lee A. Iacocca as Plymouth’s president. Considering Chrysler’s financial situation and intensified market competitions, he was aware that Chrysler’s market offerings needed to be downsized (NYT, May 11, 1992). But he decided to give Plymouth one last chance and started to replace older models with new models, such as Neon, Breeze, and Prowler (NYT, Jul. 6, 2001c). However, tight budgets resulted in failing to introduce mature new offerings and upgraded technologies (NYT, Sep. 12, 1999a). The continuing de-badging process resulted in poor quality control (NYT, Feb. 18, 2001a) and indistinct identities across offerings. Competitiveness was not improved. Consequently, new offerings were not enough to change previous perceptions and reverse declining sales. Under pressure of Chrysler’s overall financial problems and slumping sales of Plymouth, Chrysler chose to downsize the company and abandon Plymouth in 2001 (NYT, Sep. 12, 1999b; NYT, Jul. 6, 2001c).

**Oldsmobile**

Oldsmobile had the industry’s longest automobile production run when it was phased out in 2004. Ransom E. Olds founded Oldsmobile in 1887. General Motors purchased it in 1908. Oldsmobile had its golden years from 1949 to 1985 (NYT, Dec. 13, 2000b). The Oldsmobile platform did a good job and was famous for its innovative designs, such as the 1940’s hydra-matic transmission, 1949’s V-8 rocket engine, and 1966’s front-wheel drive system. In the 1970s, Oldsmobile started to rebadge with other GM brands to reduce production costs, and consequently looked similar to the other brands. But the sales were not significantly influenced because customers liked Oldsmobile better than the other GM brands at that time. Oldsmobile became the third best-selling brand in 1976, with Cutlass being the best-selling car. Things started to go wrong by 1977. Under intensively competitive pressures and declining sales volume, GM overdid the rebadging strategy. For example, GM put the Chevrolet’s V-8 engine into Oldsmobile without informing customers because GM could not produce enough V-8 rocket engines (NYT, Mar. 12, 1977). After the customers found out and complained, GM announced that all engines were now produced by the GM Powertrain Department, which was established after that event. During 1980s Oldsmobile looked not only like GM’s other brands, but also like some Japanese models. In 1984, Oldsmobile plants were reorganized under the Buick-Oldsmobile-Cadillac name and its position within GM was further diluted. The Oldsmobile identity was gone (NYT, Jun. 6, 2004a). The third-generation Tornado, for example, looked just like a Japanese vehicle. After 1986, Oldsmobile never sold a million cars. In the 1990s, facing rapid decline of market share, GM managers tried to improve Oldsmobile’s sales. They attempted to change the image of Oldsmobile using advertisements, such as
“This is not your father’s Oldsmobile” (NYT, Jul. 9, 1991a). Moreover, they also phased out some old models to cut costs and introduced new models to rebuild its market image, such as 1992 Achieva, 1995 Aurora, and 1999 Alero. They also introduced a minivan (1990 Silhouette) and SUV (1991 Bravada) models to catch up with trends for utility vehicles. But nothing worked and sales continued to decrease (NYT, Dec. 12, 2000a). Oldsmobile had long lost its identity and failed to compete with foreign automakers in terms of quality, service, or price (NYT, Mar. 20, 2001b; NYT, Jun. 6, 2004b). The rebadging, perhaps better characterized as debadging, led to direct competition among General Motors’ brands. GM was hard pressed to allocate investment funds among so many subsidiaries while sales continued to decrease (NYT, Jan. 7, 2005a). After 2000, American automakers started to recognize the importance of simplifying their market offerings (NYT, Feb. 18, 2009a). Facing such financial pressures (NYT, May 20, 2005b), management problems (NYT, Jun. 12, 2005c), and Oldsmobile’s decreasing sales, Oldsmobile’s production ended in 2004.

**Pontiac**

When General Motors’ president Alfred P. Sloan identified price gaps among his offerings, he decided to create some companion marques for GM to fill out those gaps. Pontiac was introduced as one companion marque between Oakland and Chevrolet in 1926. It was a six-cylinder vehicle, but sold for a four-cylinder price. As an affordable performance brand it achieved success immediately. For the first few decades, Pontiac had a “grandma image” and followed in step with other subsidiaries, such as Oldsmobile and Chevrolet. After Semon E. Knudsen became the president, Pontiac’s direction was changed and developed as a performance car image (NYT, Dec. 20, 2009d). The new GTO package, which was offered in the 1964 Tempest, greatly improved Pontiac’s market position (NYT, May 3, 2009c). The GTO package suddenly became very popular. The new technologies helped Pontiac enhance the perceptions of Pontiac as a performance brand. This crisp market image helped Pontiac achieve great sales volumes, and even create a new market niche—the American muscle car. Pontiac had many high performance cars at that time, such as Firebird, Grand Prix, and GTO. After the first oil crisis in 1973, although this affected sales of American muscle cars, Pontiac’s sales were still at an acceptable level. Facing declining market shares, Pontiac held its first “image conference” in 1981, which determined that Pontiac was seen as a performance car and reliable vehicle (NYT, May 4, 1981). This helped Pontiac define a clear development direction and identify customers’ perceptions. However, Pontiac changed General Managers too frequently. From 1969 to 2008, the position of General Managers was changed nine times. Each General Manager was around for only 4 years on average. That resulted in fuzzy development directions and loss of its long-term
development strategy. Tight budgets led to an increasingly indistinct product image and failure to improve technologies (NYT, Mar. 2, 1988). Aggressive de-badging led to pervasive similarities among GM offerings and decreased quality (NYT, Aug. 3, 2003). This confused customers and decreased competitiveness. A joint venture between Toyota and GM resulted in increased competition with Japanese automakers. Decreased sales led to budget cuts after the 1990s and further hindered Pontiac’s ability to deliver a distinguishable model (NYT, Feb. 20, 2009b). Pontiac introduced some new offerings to address wider markets, but this made the situation worse due to conflicting images and insufficient investment. With diluted customer perceptions, the sales of Pontiac began to decline after 2000. After General Motors filed for bankruptcy in 2008, it was under government pressure and faced a financial dilemma (NYT, Dec. 14, 2008). Even if Pontiac still was GM’s third best-selling brand, the lost brand image (NYT, Oct. 30, 2010f) decreased vehicle qualities and GM’s bad financial situation killed this great performance brand in 2010.

Mercury
Mercury was founded in 1938 as a cheaper luxury model for Ford to address a wider market. From the beginning, Mercury’s brand image was fuzzy (NYT, Oct. 7, 2001d). It merged and separated with the Lincoln organization a few times. During the 1950s, Mercury was an innovation brand. The most famous car during the 1950s was Mercury Eight. But for most of its life, Mercury was just a follower. For example, when the Big Three decided to enter the compact car market due to increasing demand for economical cars in 1960, Mercury offered the first upscale compact car, Comet, which was a stretched version of the Ford Falcon (NYT, Jun. 3, 2010c). Mercury had a few great models, such as the Cougar, which was named “Car of the Year” in 1967, and the best-selling Grand Marquis, but sales still struggled to increase from the 1960s to the 1970s. In the 1980s, Mercury made the same decision as other American automakers to reduce production costs. This resulted in Mercury going further in its rebadging strategy. The rebadging led customers to have difficulty separating Mercury from other brands. Mercury was identical to Ford and also similar to other Japanese brands, such as Nissan (NYT, May 28, 2010a; NYT, Dec. 17, 1991c). For example, the best-selling model, Milan, was based on the Ford Fusion. That confused customers and further undermined Mercury’s brand identity (NYT, May 28, 2010b; NYT, Jun. 6, 2010d; NYT, Jun. 13, 2010e). Rebadging also resulted in poor quality control, which was the main reason customers were dissatisfied and, hence, why it failed to compete with foreign brands. Sales of Mercury were dwindling, even when the auto industry had a boom during the 1990s. In 2000, the American auto market experienced great sales, but Mercury’s sales decreased by 18% (NYT, Oct. 7, 2001d). The financial crisis hit the
American economy in 2008. In 2009, Mercury sales declined from its peak of 528,033 to just 92,299 units per year (NYT, May 28, 2010b). Considering the financial situation of Ford, disappearing brand identity and increasing competition in the auto industry, top management decided to downsize its market offerings in 2010, which led to the closing of the Mercury line.

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