

ECONOMICS U\$A  
21<sup>st</sup> Century Edition

PROGRAM #2

THE FIRM: HOW CAN IT KEEP COSTS DOWN?

AIRSCRIPT

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Final Transcript

Annenberg Learner (Logo and Music

NARRATOR: FUNDING FOR THIS PROGRAM IS PROVIDED BY ANNENBERG LEARNER

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DAVID SCHOUMACHER: In 1980, long before the flap over new Coke and old Coke, the major soft drink makers made a critical change in their beverages. Why would they change the key ingredient in their already successful products? Following World War II, the Studebaker Corporation had its most prosperous years. Why would this auto producer become extinct in less than a decade? In the first decade of the 21<sup>st</sup> Century a small printing company in New Jersey managed to break into the expensive world of book publishing. How did they do it on a barebones budget?

DAVID SCHOUMACHER: No business can guarantee that it will make a profit. And in the face of 21<sup>st</sup> Century global competition, making a profit seems harder than ever. But there are some fundamental strategies that can increase the chances for success. The Firm: How Can It Keep Costs Down? With the help of economic analysts Richard Gill and Nariman Behravesh, we'll investigate that problem on this 21<sup>st</sup> Century edition of Economics U\$A. I'm David Schoumacher.

(MUSIC PLAYS - SERIES OPENING TITLES)

THE FIRM: HOW CAN IT KEEP COSTS DOWN? Appears on screen)

## PART I

PEPSI COLA COMMERCIAL: (with music) “Pepsi cola hits the spot...”

COCA COLA COMMERCIAL: (with music) “I’d like to buy the world a coke and keep it company...”

PEPSI COLA COMMERCIAL: (with music) We made our choice, make it a Pepsi...

DAVID SCHOUMACHER: Soft drink companies spend millions of dollars on advertising to make billions at the sales counters. It is a 23 billion dollar a year industry. With that much riding on sales, every decision is crucial.

BILL COSBY: “The words I’m about to say will change the course of history...Here they are. Coca Cola has a new taste and it is the best tasting Coca Cola ever.”

DAVID SCHOUMACHER: In 1985, the Coca Cola Company announced to the world that it was changing the Coke formula. To millions of loyal customers, the new taste of Coke was an outrage and the rest is history. But five years earlier the company had quietly changed a key ingredient and it had gone unnoticed by the consumers. What was that change and why did the company take such a risk? In 1979, the Coke Company earned 420 million dollars on sales of nearly 5 billion. But the giant corporation faced cost problems...The price of sugar was rising sharply. Donald Ulrich is President of the Mid-Atlantic Coca Cola Bottling Company...

DONALD ULRICH: “Prices went from about \$19 sugar up to...some people were paying \$70 for sugar. And consequently, we had to move the price of the product up to the retailer and to the consumer. And that price gap was of such significance that it slowed the consumer from buying the product. They weren’t drinking as much, buying as much...so it really had quite a drastic effect.”

DAVID SCHOUMACHER: Worldwide weather problems and government restrictions created sugar shortages in the 1970s, sending shock waves through the soft drink industry. It took a lot of beet and cane sugar to sweeten the billions of cans and bottles sold every year. In the United States, we drink the equivalent of 465 soft drinks per year per person. Coke alone bought more sugar than anyone else in the country. Dr. Robert Barry tracked sweetener prices for the U.S. Department of Agriculture.

DR. ROBERT BARRY: “In the case of Coca Cola, which at one time was using about a million tons of sugar, every one cent increase in price means about 20 million dollars.”

DAVID SCHOUMACHER: When the price of sugar shot up seven cents a pound in late 1979, the soft drink makers were desperate for an alternative. It came from one of America’s most abundant crops...corn. The process of extracting high-fructose corn sweetener...HFCS...was perfected by a chemist working at Royal Crown Cola. Jesse Meyers, the editor of Beverage Digest.

JESSE MEYERS: “And at RC there was a chemist by the name of Martha Jones...who incidentally is now working for Coke...who was instrumental in developing a lot of these new products that RC was very innovative about. She is called by many in the industry the mother of HFCS...and she made sure that this product was up to the exact specific levels of each of these franchise firms and that it could be used interchangeably with sucrose.”

DAVID SCHOUMACHER: Because American farmers produced corn so efficiently, refining those golden ears for their sugar makes high fructose corn sweetener about 10 % cheaper than sugar from beets or sugar cane.

JESSE MEYERS: “The dictates of the marketplace say to the producer, ‘You must be the low cost producer.’ In a soft drink business, this is particularly so since it’s a business driven by the high volume/low margin producer. So any edge that you can

make, that you can get, any minute thing that you can shave off that makes the racer go faster, that cuts away from the wind pushing the product back, the better off you're going to be in the marketplace."

DAVID SCHOUMACHER: But would the switch of one type of sugar for another affect the taste of the product and its sales? The manufacturers made the change very slowly...starting first with their minor product lines.

DONALD ULRICH: "We were concerned every step of the way, but at the time when we were making the switches, we ran thousands and thousands of taste tests to make sure that that wasn't happening...And then chemically analyzed everything that was happening to the product. What most people don't understand is high fructose is sugar...You know, there's cane sugar, beet sugar, and there's corn sugar...So it is sugar. It was just trying to get the impurities out of the product and make it as high a quality product, because the processing had not been there to do that."

DAVID SCHOUMACHER: It was not long before the manufacturers of corn sweeteners could guarantee quality levels and adequate supplies. The large soft drink bottlers like Coke started to convert...Did it make any difference in the product?

ROBERT BARRY: "The manufacturers of the soft drink companies...Coke, Pepsi...claim that it does not...that it is quite the same. There are some who would quibble with that."

DONALD ULRICH: "I don't think there was any reaction from the consumer because, even though it was not kept a secret, the consumer really wasn't aware that we had even introduced high fructose."

JESSE MEYERS: "The formula didn't change one whit. They used a different approach to get the same effect. We're really talking about a change of pucker...It's still the same kiss."

DAVID SCHOUMACHER: In 1980, after several years of tinkering, the sugar substitution worked. Consumers thought it was the same Coke and kept on buying it. In fact, it was a product the company could deliver at substantially lower cost and maintain profit levels. Soon, Pepsi and Coke's other competitors made the sugar switch themselves. Economic analyst Richard Gill explains why companies cannot afford to ignore cost-cutting opportunities such as this.

(MUSIC PLAYS - COMMENT AND ANALYSIS I)

(ECONOMICS U\$A LOGO appears on screen)

RICHARD GILL: From the point of view of the soft drink producers, the change from sugar to high-fructose corn syrup was clearly an important one, cutting their costs and sustaining their profits. From the customer's point of view, it would seem to have been a non-change: Coke in 1980 tasted no different from Coke in 1975. Consumers generally didn't even know a change had occurred. Still, the change did affect customers. By lowering costs, the substitution permitted soft drinks to be sold more cheaply than they otherwise would have been. In a competitive environment, lowered costs almost invariably translate into downward pressures on consumer prices. Such substitutions are not only beneficial, they are characteristic in a market economy. Just as there is more than one way to skin a cat, there is more than one way to make Coca Cola, grow wheat, load a ship, even to produce drinking water. In Africa, for example, even today, you may see water being collected in this fashion. In the United States, our water supply comes to us through a vast network of dams, reservoirs, and pipes. And one big reason for this difference is that labor is cheap and machinery expensive in Africa, while labor is expensive and machinery relatively cheap in the United States. The way in which we produce all our products...soft drinks or water...will be affected by the prices of the factors of production...raw materials, labor, machinery...that go into producing them. The businessman will find it in his interest to substitute the cheaper factor of production for the more expensive...high fructose for sugar, dams and pipes for expensive human labor. And, in most cases, even when we're unaware of the change, we, the consumers, will benefit.

## PART II

(STUDEBAKER COMMERCIAL)

TRACK: (with music) “Jazzy all around with loads of room in the back, Studebaker Lark, saves you the jack. Big car comfort, easy to park, you’re gonna have a fall in the Lark. The ’62 Lark.”

DAVID SCHOUMACHER: Studebaker had been attracting public attention with its innovative cars since right after World War II. By 1948, Studebaker sales soared to 300 thousand and it had grabbed 4% of the market. Profits were more than 46 million dollars. For more than a century Studebaker plants in South Bend had been turning out top quality transportation...But even with its fast post-war start, Studebaker could not compete. Why did this company fail in America’s flourishing automobile market? In 1852, five Studebaker brothers began a business in South Bend, Indiana, that would grow into the largest manufacturer of wagons in the world. At the turn of the century, the company moved into the automobile business, first turning out car bodies and finally buying the EMF Motor Company. The success of this first production car briefly placed Studebaker as a member of the Big Three car makers. The early boom years were followed by a series of bad decisions about new models. The Depression drove Studebaker into bankruptcy. After reorganization, a streamlined management brought in designer Raymond Lowie to develop a new car.

(STUDEBAKER COMMERCIAL)

TRACK: “Here is perfect balance that makes the Champion hold its footing in spite of this whirling dervish driving.”

DAVID SCHOUMACHER: Sales of the Champion and lucrative wartime contracts brought the company back.

LESTER FOX: “Studebaker had done a lot of work, even throughout the war in terms of totally redesigning a new concept in automobiles.”

DAVID SCHOUMACHER: Lester Fox was Vice President of the United Auto Workers Union at Studebaker.

LESTER FOX: “The new car did propel the corporation into national recognition that resulted in assembly plants in Canada and on the East Coast and in California...to meet the demand...in addition to the main plant here in South Bend.”

DAVID SCHOUMACHER: The bullet nose models, starting with 1949, added to Studebaker’s success. The joke was...Is it going backward...or forward?

DAVID DAVIS: “The line that was called the Champion was just a terrific car. It was ahead of its time in many ways...in its ability to deliver great gas mileage... to deliver terrific comfort for four or five people in a relatively small package...and it was an audacious looking car.

DAVID SCHOUMACHER: Studebaker celebrated its centennial in 1952 with its best year ever...selling some 335 thousand cars. But then, its road to future profits started taking some turns for the worse.

RAY BURNETT: “1953, again, was a radical change...”

DAVID SCHOUMACHER: Ray Burnett was a national sales manager for the Studebaker Corporation.

RAY BURNETT: “and the low-slung sports car...and then we began to run into production problems. That is, there were a lot of decisions made too late in the season to be able to tool up for them. And we had an extreme amount of difficulty in getting automobiles that were really shippable and ready to go on the road. And so, consequently, the demand was very heavy because there was a lot of popular acceptance for the automobile...But we just couldn’t, in volume, get them out the door.”

(STUDEBAKER COMMERCIAL)

TRACK: “They all get excited when they see a new Studebaker streaking down the road!”

DAVID SCHOUMACHER: Well, not everyone. Car consumers were changing. People began getting choosier about what they bought. Model changes became essential in the industry. The Big Three car makers could afford to do this because they could spread the costs out over more cars. Their large production gave them economies of scale. But it was especially hard on the smaller independent car makers. It would cost Studebaker some 30 million dollars to introduce an entirely new model.

LESTER FOX: “You know, model change is terribly expensive in the industry, and of course the low-volume producer has to amortize these costs over fewer products...and, accordingly, it increases the unit cost.”

RAY BURNETT: “And this is a company which is really undercapitalized. We didn’t have the money to make the changes...the style changes that were necessary to catch the public’s fancy.”

DAVID SCHOUMACHER: The sales numbers began to hurt. Production fell by 2/3 in two years. Making only 100,000 cars in 1954, Studebaker was losing the benefits of the economies of scale. At the same time, the company was struck with high payroll costs negotiated during the boom years. Studebaker executives tried one way to increase its scale of production...a merger with another car maker. In 1954, an exchange of stock created the Studebaker-Packard Corporation.

LESTER FOX: “The merger of Packard and Studebaker has been likened to two staggering drunks trying to help one another across the street.”

RAY BURNETT: “I remember vividly, going to Detroit and looking over the Packard facilities, and they couldn’t produce cars either. They couldn’t get them to fit. All the executive parking lots were full of Packards. All the street was full of Packards because they weren’t ready to ship...Something was wrong with them.”

DAVID SCHOUMACHER: In effect, the financial community vetoed the merger by rejecting a 50 million dollar loan plan for retooling...to make parts interchangeable between Packard and Studebaker. Still, the company was able to offer new products in an attempt to increase sales. The Studebaker Lark made 1959 a profitable year...but it did not last. The Big Three came out with their own compacts and dominated the market. By the time Studebaker introduced its 1964 models, no amount of advertising splash could cover the fact that Studebakers were destined to become orphan cars. By the last year, production fell to 66 thousand units. Market share was less than 1%...and despite profits in other divisions of Studebaker-Packard, automobile losses had hit 40 million dollars over the last 4 years. Finally, in December of 1963, the Board of Directors voted to shut the doors in South Bend. When a company goes under, everyone points a finger at everyone else, and Studebaker was no exception. Regardless of who was at fault though, the end became inevitable when the company shrank below the minimum size for survival. Economic analyst Richard Gill explains.

(MUSIC PLAYS - COMMENT AND ANALYSIS II)

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RICHARD GILL: In the American automobile industry historically, failure has been the rule. In the early part of the century, when Studebaker got serious about car production, there were 45 different American Car producers. When Studebaker failed in 1963, the number had been reduced to 4. All of which suggests that there were general factors operating, and one of them certainly was size. Whether you are thinking in terms of production costs, advertising expenditures or dealer networks, the large firm is likely to have decided advantages over the small in automobile production. Economists call such advantages economies of scale. When these economies occur, the individual firm’s

average cost per unit of output will tend to decline as its production size increases. We measure average unit cost on the vertical axis and the quantity of output produced on the horizontal. Economies of scale are shown by the downward slope of this average cost curve as production increases. Now huge firms do not always mean lowered costs. Large, inefficient business bureaucracies can often cause costs to be higher than otherwise. Eventually, most firms' cost curves turn up again like this. Also, if firms get too huge, they may be able to monopolize certain markets. That is to say, lowered costs are not always passed on to the consumer. Over the whole of our history, however, there is little doubt that economies of scale have made possible a greater national output and a lower cost in terms of our scarce resources.

### PART III

DAVID SCHOUMACHER: The twentieth century book business.....

Expensive equipment required mass sales and high price tags. It made it hard for new firms, especially smaller ones, to compete, and for non-mass market books to get published. The rules were the same, whether you were a large firm like McGraw-Hill or a mom-and-pop business like New Jersey-based PrintPOD.

DAVID SCHOUMACHER: So, could a small firm like PRINT POD, working primarily out of a home compete for a place in the expensive world of 21<sup>st</sup> century publishing?

JACKIE FLAMM: "The difference in ...publishing the way it used to be years ago and now is the fact the everything can be done electronically."

DAVID SCHOUMACHER: Manuscripts could move from author to editor to computer to printer as often as necessary. That made it technologically possible for a company like PrintPOD to produce a college textbook like Creative Grammer. But were there other issues?

JACKIE FLAMM: “I met a professor of English from Bergen Community College, who was talking to me about materials that he had developed for the teaching of grammar...I talked to Mike about it, and I said, ‘Why don’t we publish it ourselves? We can do it.’”

MIKE ASLETT: “One of the problems that we faced as a publisher was ...We had 600 pages to produce. Each page a minimum of twenty hours... At \$35 an hour, we were talking about \$300,000, \$400-500,000, to get the pages composed, and we simply didn’t have that.”

JACKIE FLAMM: “I was at the Frankfurt Book Fair with Mike one year when we were first starting to think about doing *Creative Grammar*. ...I met a woman from a company in India who just came up to me and said, ‘If you ever need help on any of your projects please contact me.’”

DAVID SCHOUMACHER: In considering outsourcing editorial work to India, PrintPOD would be following a relatively recent but already well-established path between the U.S. and India. Many Indians were well-educated and computer-savvy. As a result of its years as a British colony, English was widely spoken. And India’s workforce was huge. But the project would require a team of approach, dozens of workers familiar with the current composition software. Could PrintPod afford it? Could they communicate? Could India deliver a quality project on time?

JACKIE FLAMM : “We started to talk about it and I said why don’t we try the Indian company?”

MIKE ASLETT: “When we were talking to India, we were basically telling them how much we were prepared to pay, and I chose a number of \$40,000. ‘What can you do for \$40,000?’”

MIKE ASLETT: “And I was astonished to hear that they said, ‘Yes, we will do it for \$40,000.’” (Laughter)

JACKIE FLAMM: “But we needed help in the page makeup, and this is what the Indian company was advertising, and we thought that we would just take a chance....I contacted them, we sent them some pages through the internet, through our site on the internet, and they came back beautifully done, and we decided to just take a chance.”

DAVID SCHOUMACHER: In a partnership between firms from two cultures as different as the U.S. and India, would there be difficulties too great to overcome?

JACKIE FLAMM: “One of the main cultural problems that we found... was the fact that the people we were working with couldn’t say, ‘We don’t know how to do this.’ They did not ask questions, they did not come to us and say, ‘What do you want us to do here? We don’t know what to do here.’ We encouraged them to ask questions. We pointed out the problems if they didn’t ask questions. Once we established this, and fixed it, things ran so smoothly.”

DAVID SCHOUMACHER: Thanks to computers, the internet, instant messaging—PrintPOD was able to connect to a less expensive labor force to turn a profit on a project they couldn’t have otherwise undertaken.

But it was not just PrintPOD that benefited. Teachers and students could now learn from *Creative Grammar*, a book that a major publisher could not have economically produced and distributed.

JACKIE FLAMM: “Now, anybody can be a publisher. We are working with many people now who are writing their memoirs. People who want to be published and we can produce these books for them at very little cost.”

MIKE ASLETT: “The possibility to publish and be published has absolutely exploded exponentially. Obviously I see the future along with every body else in total electronic delivery of content.”

DAVID SCHOUMACHER: From the onset of the computer and Internet age, new technologies have opened opportunities for firms like PrintPOD to prosper, expand and innovate...to seek, explore and consummate alliances on an international scale. And in doing so, not only profit, but pass the benefits on to consumers as well. Economist Nariman Behravesh examines the economics behind the revolution.

(MUSIC PLAYS - COMMENT AND ANALYSIS III)

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NARIMAN BEHRAVESH: As we have seen, under the pressure of competition and the market, businesses cut costs in many ways. They substitute less expensive inputs for more expensive ones... in the case of PRINT POD, less expensive labor and machinery in India for more expensive ones in the U.S. However, there are limits to this substitution. Consider the following example. If Indian workers' wages are 10% of those in the United State, but the marginal product (productivity) of labor is 20% of that in the U.S., then it is cost effective for a company such as PRINT POD to produce books in India. However, as more Indian workers are employed, their marginal product (productivity) will decline, because of diminishing returns. Once the marginal product of Indian workers falls below 10% of their American counterparts—the same percentage of the Indian-to-American wages—then there is no advantage in using Indian rather than American workers. This type of “input optimization,” as economists call it, helps to keep business profitable and to keep prices down for consumers.

DAVID SHOUMACHER: To survive in rapidly changing markets, businesses have to learn to take risks and to cut costs wherever they can. By substituting cheaper raw materials, making use of new technologies and reducing the cost of labor, managers of business firms can increase their profit margins. If businesses can't keep up with change, or can't afford to, they are forced to shut their doors. For this 21<sup>st</sup> Century Edition of Economics U\$A, I'm David Shoumacher.

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