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ERP Implementation Failure at Hershey Foods Corporation

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This case was written by Indu Perepu, under the direction of Vivek Gupta, ICFAI Center for Management Research. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The case was compiled from published sources.

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ERP IMPLEMENTATION FAILURE AT HERSHEY FOODS CORPORATION

"The Hershey debacle is not an indictment of ERPs per se, but it should caution any company that chooses to implement such a broad suite to make sure that system will function smoothly before entering a peak sales period."[1]

- *Chain Store Age*, in 1999.

"There is no doubt that 1999 was a most difficult and disappointing year for Hershey Foods Corporation. While the year got off to a slow start due to excessive retail inventories, we fully expected a strong finish in the second half of the year. Instead, the implementation of the final phase of the Corporation's enterprise-wide information system created problems in the areas of customer service, warehousing and order fulfillment. These difficulties were exacerbated by our growth in recent years which had resulted in shipping capacity constraints. As a result, Hershey's sales and earnings fell well short of expectations for the year."[2]

- Kenneth L Wolfe, Chairman & CEO, Hershey Foods Corporation, in 1999.

INTRODUCTION

In the third quarter of 2000, Hershey Foods Corporation[3] (Hershey), the US based manufacturer of chocolates and sugar confectionary, announced that its revenues increased to US$ 1.197 billion as compared to US$ 1.097 billion in the third quarter of 1999 – an increase of 12%. During the same period, profits increased by 23% from US$ 87.6 million to US$ 107.4 million. The company's management and shareholders were pleased at this announcement, as Hershey's revenues and profits for the third quarter of 1999 as well as for the year 1999 as a whole had been adversely affected due to problems related to ERP systems implementation in the company. According to Kenneth L. Wolfe (Wolfe), CEO and Chairman, Hershey, "Admittedly, we were in the depths of our shipping difficulties during last year's third quarter. ERP system, as well as a revamped distribution facility in the Eastern US, were both much improved during this period of high demand for our domestic confectionery business."[4]

Hershey had started revamping its hardware and software infrastructure in 1997. In 1999, Hershey faltered during the final leg of the ERP implementation. Hershey had selected the services of three vendors SAP AG[5] (SAP), Siebel Systems[6] (Siebel) and Manugistics[7] for the

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[1] Matt Nannery, "When the Candy Man Can't," Chain Store Age, December 1999.

[2] Hershey Annual Report, 1999, (filed on March 13, 2000), www.sec-edgar-online.com.

[3] In April 2005, Hershey Foods Corporation was renamed as The Hershey Company.

[4] Marc L Songini, "Halloween Less Haunting for Hershey this Year," Computerworld, November 06, 2000.

[5] Walldorf, Germany-based SAP AG is the largest business software enterprise in Europe. SAP is the pioneer of enterprise resource planning with its main product SAP ERP. In 2006, the company's revenues were at € 9.327 billion and net income was at € 1.871 billion.

[6] Siebel Systems Inc. was founded by Thomas Siebel in 1993, and was involved in designing, developing, and marketing of CRM applications. In September 2005, Oracle Corporation acquired Siebel for US$ 5.8 billion.

project, and some of the modules were implemented as per the schedule by the company in January 1999. However, the remaining modules which were to be implemented by April 1999 were delayed and were implemented only in July 1999. This overlapped with the time when the company usually started receiving huge orders for the impending Halloween and Christmas seasons.

In order to quicken the implementation process, Hershey opted for Big Bang implementation, where several modules were implemented simultaneously. Some of them could not be tested properly due to lack of time. This led to several problems related to order management and fulfillment, and orders from many retailers and distributors could not be fulfilled, even though Hershey had the finished product stocked in its warehouses. The adverse affects of failed ERP implementation were immediate, with a significant drop in the revenues for third quarter of 1999. Annual revenues for 1999 were US$ 150 million less compared to those in 1998, a drop of 12% (Refer Table I for the details of Hershey's financials during the third quarter of 1998, 1999 and 2000).

TABLE I
HERSHEY'S THIRD QUARTER FINANCIALS (1998-2000)

(In US$ thousand)

	Quarter ending Oct 01, 2000	**Quarter ending Oct 03, 1999**	**Quarter ending Oct 04, 1998**
Net sales	**1,196,755**	**1,066,695**	**1,217,237**
Cost & Expenses			
Cost of Sales	696,431	634,042	706,605
Selling, Mktg, Admn	303,688	268,575	311,658
Total Costs & Expenses	**1,000,119**	**902,617**	**1,018,263**
Income before interest & income taxes	196,636	164,078	198,974
Interest Expenses net	21,152	20,507	22,691
Income before income taxes	175,484	143,571	176,283
Provision for income taxes	68,079	55,993	68,750
Net Income	**107,405**	**87,578**	**107,533**

Source: Hershey Foods Corporation (www.hershey.com).

However, Hershey was quick to rebound and implemented mySAP.com by September 2002, much before the schedule and below the estimated budget. According to Steve Sawyer, Professor, Information Sciences and Technology, Pennsylvania State University, "In other words, most corporations don't fail so dramatically the first time, so their repair is never so good."[8]

BACKGROUND NOTE

Hershey was founded by Milton Hershey (Milton) as Hershey Chocolate Company (HCC) in 1894. Before establishing HCC, Milton underwent a four year apprenticeship with a candy maker in Lancaster[9]. In 1876, he established a candy store in Philadelphia, which was closed by 1882. He then moved to Denver, where he learnt making caramel using fresh milk. He then started a candy business in New York which failed. He moved back to Lancaster to start Lancaster

[7] Manugistics is a software application company founded in 1969 as Scientific Time Sharing Corporation. The name was changed to Manugistics in 1992. The company was a pioneer in supply chain software but its fortunes were adversely affected by cut-throat competition and the dotcom crash in March 2000. In 2006, it was sold to JDA Software.

[8] David F Carr, "Hershey's Sweet Victory," Baseline, December 2002.

[9] Located in South Central Pennsylvania, Lancaster is the eighth largest city in Pennsylvania, USA.

Caramel Company which was successful. The company's products were sold all over the US and were exported to Europe.

Milton decided to make chocolates, during a visit to an exposition in 1893, where he purchased the machinery used to make chocolates. Using the machinery, he began making chocolate coatings for caramels. HCC was incorporated after this business success in that year.

By 1895, HCC was manufacturing more than 114 different varieties of chocolates. But milk chocolate was still made only by a few Swiss companies. Milton aimed to learn how to mass produce milk chocolates, and spent several years to try to discover the right combination and method to produce milk chocolates. By 1899, he arrived at the right combination of cocoa, sugar and milk through trial and error and became the first American company to make milk chocolate.

In order to concentrate on the chocolate business, the caramel company was sold in 1900 for US$ 1 million. A new facility to produce chocolates was started in Derry Township, in Pennsylvania. The First World War had a negative impact on the company, as the sugar it imported from Europe became scarce. This led HCC to explore the possibility of using Cuba as a viable alternative source of sugar. It went on to acquire several sugar plantations and also constructed sugar refineries in Cuba.

In 1927, HCC was incorporated as Hershey Chocolate Corporation. At the same time, another company Hershey Estates was incorporated. This company looked into Milton's other activities like community projects. Another company to oversee the Cuban operations was also founded at the same time. In the same year, the company went public by offering 350,000 shares of convertible preferred stock of Hershey Chocolate Corporation.

Hershey was known for several innovations and was credited with introducing several chocolate variants. Some of the variants included chocolate syrup for home use (1926), chocolate chips (1928), Krackle Bar, ice cream toppings, cream topping with milk chocolate, shell toppings, hot fudge, etc. Some of HCC's other popular products included Hershey's Kisses, introduced in 1907, Mr. Goodbar (1925), Krackel Bar (1938), and Hershey's Hugs (1993).

During the Second World War, the US army demanded a chocolate that weighed four ounces, did not melt at high temperatures and provided high energy. The product should not taste good and soldiers should eat it only in case of emergency. Taking up the challenge, Hershey produced special candy bars meeting the above specifications. They were known as 'Field Ration D'. By the end of the War, Hershey was producing around 24 million 'Field Ration D' bars every week.

After the Second World War, the Cuban facilities were sold to Cuban Atlantic Sugar Company. Through the years, Hershey Chocolate Corporation acquired several companies in order to expand and consolidate its position. In 1963, Hershey acquired H B Reese Candy Company, which was well known for peanut butter cups. It also diversified into pasta manufacturing[10] by acquiring San Giorgio Macaroni, Inc. and Delmonico Foods, Inc. In 1977, Y&S Candies was acquired. Hershey also acquired the rights to manufacture and distribute many products of Cadbury's in the US. In 1968, the company was renamed Hershey Foods Corporation.

Hershey's products were exported to more than 90 countries across the world, through its international division. Hershey sold several products and some of the popular ones were Hershey's Kisses, Kit Kat, Reese's Peanut butter cups, Twizzlers, etc. (Refer Exhibit I for more about Hershey's products). Hershey sold nearly 3,300 products, including candies with variations

[10] In early 1999, Hershey sold its pasta business to New World Pasta for $450 million, while retaining a minority stake in the business.

in shapes and sizes. The sales of Hershey which were at US$ 334 million in 1969 grew to US$ 4.94 billion by 2006. As of 2006, the company had more than 14,300 employees.

IMPLEMENTING ERP

Hershey priced its products low, and to achieve sales of almost US$ 5 billion, huge quantities of the products needed to be sold. This called for highly efficient logistics and supply chain systems duly supported by information technology (IT). In the early 1990s, the spending on IT in the food and beverage industry was among the lowest. During this period, Hershey, like most of the other companies in the industry used legacy systems[11]. It functioned through several mainframe legacy systems, which were used for different functions ranging from human resources to order processing.

During late 1996, the management of Hershey gave its approval to a project named Enterprise 21, which aimed at modernizing the hardware and software used by the company. At the turn of the century, Y2K problems[12] were expected to crop up in the company's legacy systems. Hershey chose to replace the systems, rather than spending huge amounts on solving the date related problems in the legacy systems. The main goals of Enterprise 21 project were to upgrade and standardize the hardware, shift to client/server[13] environment from the existing mainframe based environment, move to TCP/IP[14] network, etc. At around the same time, there was growing demand from the retailers that suppliers like Hershey should share their data about product deliveries so that the retailers could maintain optimum inventory levels and reduce costs. By implementing new software, Hershey aimed at better coordinated deliveries of its products, helping retailers maintain low inventory and reduce inventory holding costs, and on the whole, providing better customer service.

Hershey's information systems division wanted to switch over to the ERP system by April 1999. According to Keith Costello, Project Team Member for Enterprise 21, "We redesigned the whole business process with the customers in mind. We're implementing this No. 1 to enhance our competitiveness, and No. 2 to enhance our customer service. In our corporate culture, the customer service piece is highly visible. For example, when customers place orders, Hershey customer-service reps will be able to say whether the product can be delivered on the date the customer wants it, and, if not, when it will be available."[15]

The new ERP software was expected to help Hershey reorganize its business processes. For this purpose, Hershey selected SAP AG's R/3 Enterprise Resource Planning suite, along with

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[11] Legacy systems refer to computer systems or application programs that have existed for a long time, and have been modified several times. Legacy systems are also defined as systems that were already in use in which the data cannot be changed to new formats. The companies using legacy systems would have spent considerable time and money on them and are not keen on changing them. It usually contains a data management platform with custom designed software.

[12] The Y2K problem also known as Year 2000 problem or the millennium bug was a result of computer program design, where the year in the 'date' field was stored in two digits. After December 31, 1999, which was read as 99, the next year 2000 would be interpreted as 1900, due to the last two digits 00. When this happens in programs that make calculations based on dates, like calculating interest, accounting systems, etc. wrong results would be given.

[13] Servers are computers or processors used for managing file servers, print servers, and network servers. Clients refer to PCs or workstations on which users run the applications.

[14] Transmission Control Protocol/Internet Protocol is a suite of communication protocols used to connect the hosts to the Internet.

[15] Mary E. Thyfault, Stuart J. Johnston, Jeff Sweat, "The Service Imperative," www.informationweek.com, April 01, 1999.

companion software from two vendors – Manugistics and Siebel. Software from SAP included modules for finance, purchasing, materials management, warehousing, order processing, and billing. Manugistics would provide software for transport management, production, forecasting and scheduling. The software from Siebel was to support Hershey in managing customer relations and in tracking the effectiveness of the company's marketing through a pricing promotions module. Hershey had used software from Manugistics earlier in its mainframes. After switching over to the ERP system, Hershey was to have a client-server version of the same software. IBM Global Services was chosen to integrate the software provided by the three different vendors. The aim of the project was to put all the systems on a single integrated platform. Overall, the project was expected to cost the company US$ 110 million.

As a part of Enterprise 21 project, Hershey installed bar coding systems across its products and plants in the US. Through bar coding, Hershey aimed to reduce production costs, track the inflow and outflow of the materials, and improve the overall management of logistics.

According to the initial plan of the project, Hershey would be able to shift to the new system by April 1999, when the annual sales of confectionary companies were usually lower, compared to other times of the year. For confectionary companies, sales were mostly seasonal - with the Christmas and Halloween seasons accounting for 40% of the total sales. This essentially meant that the project which would otherwise take around four years to complete, had to be finished in a span of just over thirty months. Another reason why Hershey wanted to finish the project at a quick pace was because of the impending Y2K problem.

By January 1999, some of the modules like SAP financial, materials management, purchasing, and warehousing had been implemented. However, other modules like the critical order processing and billing systems modules from SAP, the pricing and promotions package from Siebel and planning and scheduling modules from Manugistics were behind schedule. Though Hershey planned to switch over to the new systems during April 1999, which was a lean season for confectionery sales, these modules were added on only in July 1999 – three months behind schedule. At that time, Hershey was under pressure and was not in a position to extend the implementation schedule, as the Y2K problem was looming large. That was the time that orders from retailers for Halloween started pouring in.

Hershey then decided on a Big Bang approach to ERP implementation. In this approach, the software was to be implemented at one go, instead of a phased approach of implementing one module at a time, testing it, and then taking up the next module. The phased approach allowed a company to find and correct bugs before moving on to the next phase. However, Hershey was of the view that the Big Bang approach would enable it to meet all its Halloween orders.

THE PROBLEMS

Initially, the rollout appeared to be smooth. But slowly, problems pertaining to order fulfillment, processing and shipping started to arise. Several consignments were shipped behind schedule, and even among those, several deliveries were incomplete. However, it was too late for Hershey to respond to this problem. The old logistics system that had been in place was pulled down, making way for the new one, which could not function as required. Without any data about the products in its hands, Hershey was often forced to call up customers and inquire about the details of the quantity they received and ordered.

In July 1999, when Hershey opted for the Big Bang approach to ERP implementation, it had supplies for around eight days - this was higher than usual. Hershey maintained more supplies in order to address any minor problems that might occur during the implementation. But three weeks after the implementation of the new system, it was evident that Hershey would not be able to meet its deadlines as the shipments were delayed. As against the usual five days, that it took to

deliver the products, Hershey asked distributors for around twelve days to deliver their orders. However, Hershey missed that deadline too. By August 1999, the company was 15 days behind schedule in fulfilling orders.

Several of Hershey's distributors who had ordered the products could not supply them to the retailers in time, and hence lost their credibility in the market. The retailers complained that the problems with irregular supplies from Hershey had been persisting since summer and they were looking at other alternatives. According to a Candy Category Manager at 7-Eleven[16], "If we ran out of Kit Kat[17] or another Hershey item, we might expand facings of Snickers. We typically used the next-best-selling item."[18]

Hershey also lost precious shelf space, for which there was high competition in the market. Customers began switching to products of competitors like Nestlé[19] and Mars[20]. Retailers opined that not only short term sales but long term sales of Hershey too would also be affected. According to Ron Coppel, Vice-president of Business Development at Eby-Brown Company, a distributor, said, "If you don't have my toothpaste, I'm walking out. But for a chocolate bar, I'll pick another one. Customers are not likely to walk out of the store because there wasn't a Hershey's bar. They'll pick another candy bar."[21]

On the one hand, Hershey was unable to send the consignments on time due to problems in order entry, processing and, fulfillment; on the other, the warehouses were piled up with products ready to be shipped, as the manufacturing process was running smoothly. Product inventory started to pile up and by the end of September 2000; the inventories were 25% more than the inventories during the previous year. Hershey missed out on the deliveries, in spite of having enough products at its warehouses.

This confusion surprised market observers and Hershey on its part did not disclose the details of what went wrong. Later on, analysts identified that the problem had occurred due to several informal structures within the company. SAP R/3 ERP implementation required all the data pertaining to the location of the inventory and its details. Hershey used to ensure peak-season inflow of products from its manufacturing units by placing the products wherever the space was available; this was not always the distribution center or the warehouse. Sometimes, it rented temporary space and products were even stored in unused rooms in its factories.

The temporary facilities where products were stored were not identified as storage points as far as SAP R/3 ERP software was concerned, and so many such storage locations were simply not

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[16] 7-Eleven, subsidiary of Seven & I Holdings Company, Japan operates a chain of convenience stores with presence in over 18 countries including the US, Japan, Thailand and Taiwan. The company operated more than 30,000 stores.

[17] A Kit Kat bar is a confectionary which was first created by Rowntree Limited of York, England, and now produced worldwide by Nestlé, which acquired Rowntree in 1988, except in the US where it is made under license by Hershey's due to a prior licensing agreement with Rowntree.

[18] Emily Nelson, "Kiss Your Hershey Treats Goodbye," ZDNet News, October 29, 1999.

[19] Switzerland based Nestlé is a packaged food company with a significant presence across the world. Some of the company's products are milk, chocolate, bottled water, coffee, and pet products. The company's revenues were at CHF 98.5 billion and profits were at CHF 5.05 billion in 2006.

[20] US-based Mars Incorporated, one of the largest privately owned companies in the US, manufactures chocolate, confectionary and pet food. Some of the renowned products from Mars are Mars bar, Milky Way, Snickers, M&M's, and Twix. The company's revenue in 2006 was at US$ 21 billion.

[21] Emily Nelson, "Kiss Your Hershey Treats Goodbye," ZDNet News, October 29, 1999.

taken into account. In order to fulfill customers' orders, the SAP initially checked the inventory available at each of the locations mentioned in Hershey's official records. However, the products stocked in informal locations were not checked, which SAP R/3 software did not consider. The main reason for the gap was the lack of coordination between the technical personnel implementing the system and the people involved in operations, who did not update those implementing the software solution. Without a database of the entire inventory of the company, the orders could not be processed on time. According to Kenneth D. Miesemer, Director of Eastern Distribution Operations at Hershey, "We'd had a real problem with inventory accuracy, and a lot of the time we didn't have the right inventory to the right place according to our records."[22]

Hershey did not acknowledge the existence of the problem till early September 1999. In mid-September 1999, Hershey announced that it was having problems in processing orders using its new computer systems. The company said that employees were facing problems entering new orders into the systems, and the new systems were not transmitting order details to the warehouses. Thus the company did not indicate whether the root cause of the problems was poor software quality or implementation, but did say that the information flow between different applications needed to be righted in order to fix the problems. The news made it to the headlines of major business newspapers and Hershey's stock price plunged by 8% on a single day. With the news about the problems widely reported in the media, it experienced a sharp decline even over a longer period, falling by 35% to US$ 47.50 by late October 1999, from US$ 74 during October 1998 (Refer Exhibit II for Hershey's stock price from 1998 to 2002).

Hershey announced that the problems would be sorted out by the first week of November 1999. However, analysts expressed doubts about Hershey's ability to bounce back. According to William Leach from Donaldson, Lufkin & Jenrette[23], "They've missed Halloween, they're probably going to miss Christmas, and they might even start missing Easter."[24] Later, Wolfe confirmed that in all probability, the problems would not be sorted out before the end of the year 1999.

With several orders remaining unfulfilled, Hershey's failure to implement the ERP software on time costed the company US$ 150 million in sales. Profits for the third quarter 1999 dropped by 19% and sales declined by 12%. In its 1999 annual report, Hershey stated, "The reduction in shipments resulted primarily from difficulties in order fulfillment (customer service, warehousing, and shipping) encountered since the start-up of a new integrated information system and new business processes during the third quarter of 1999."[25] Hershey confirmed that the problem was with getting the customer orders into the system and transmitting them to the warehouses. It was estimated that during the third and fourth quarter of 1999, Hershey lost about 0.5% market share.

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[22] David F Carr, "Hershey's Sweet Victory," Baseline, December 2002.

[23] Donaldson, Lufkin & Jenrette is an investment bank founded by three Harvard graduates in 1959. The business of the company included securities underwriting, sales and trading, investment banking, merchant banking, investment research, financial advisory, brokerage services, venture capital, etc. In August 2000, the company was acquired by The Credit Suisse Group.

[24] Craig Stedman, "Failed ERP Gamble Haunts Hershey," Computerworld, November 01, 1999.

[25] Hershey Food Corporation, Management Discussion and Analysis, Annual Report, 1999.

WHAT WENT WRONG?

The top management of the company as well as industry analysts began looking at the reasons for the problems at Hershey. Though SAP was blamed for Hershey's debacle, the company's management viewed it differently. According to McKay, Chief Executive Officer and President, SAP US, "If it was a system issue, I'd point directly to a system issue."[26] Siebel stated that the problem was not due to their software, saying, "It may have turned out with the big bang kind of installation, they were maxed out there."[27]

Industry analysts also concurred that problems in project management were to blame for the debacle. According to Tom Crawford, General Manager, Consumer Products unit, SAP America Inc., "There are really no software issues per se, in terms of bugs or fixes that need to be applied to make (R/3) work any differently that it is now. The SAP workers are just making sure they're using the business processes (built into the software) correctly."[28]

Hershey had planned to have all the systems up and running by Spring 1999, with the Y2K problem in the vicinity. As a result, there was hardly any buffer left for the systems to be tested. The deadlines Hershey had set to implement the ERP suite were unrealistic. Hershey was unable to stick to the deadlines and some of the important processes like transportation and warehouse management got shifted into the third quarter.

Another reason was that Hershey implemented ERP during the peak season, and did not have time to rectify the mistakes arising out of problems pertaining to the implementation. According to analysts, ERP implementation was a complex process and many glitches could occur. Hershey's mistake was in going ahead and implementing ERP during its busiest season. Had it done this in an off-peak period, the company could have successfully addressed the lapses arising in the software. According to experts in the field, anything between three to six weeks was required after implementation to identify problems and fix them. If Hershey had completed the project on time, and implemented it by April, implementation and correction would have been completed before the peak season. Tony Bear, IT analyst, asked, "Who really was culpable in this situation? Was it Hershey's management for not realizing that its busiest sales period probably was not the best time to activate a new ERP system?"[29]

Industry experts said that with three different vendors working on the system, it would have been better if Hershey had chosen to roll out each system successively and then check the integration issues. For a project to be implemented in a company as big as Hershey, each component had to be rolled out cautiously, ensuring that the system worked according to the plans. But with such a short time-frame to implement the ERP, it was not possible to test each of the components carefully. In this case, a big bang was not the right approach. According to Jim Shepard, Senior Vice-president for AMR Research[30] in Boston, "These systems tie together in very intricate ways, and things that work fine in testing can turn out to be a disaster. (Going live with all the software is) a huge bite to take, given that (processing orders) is the lifeblood of their business."[31]

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[26] Emily Nelson, "Kiss Your Hershey Treats Goodbye," ZDNet News, October 29, 1999.

[27] Emily Nelson, "Kiss Your Hershey Treats Goodbye," ZDNet News, October 29, 1999.

[28] Craig Stedman, "Failed ERP Gamble Haunts Hershey," Computerworld, November 01, 1999.

[29] "Tony Baer, "Don't Point the Finger – Look in the Mirror," www.msimag.com, December 2003.

[30] Boston, USA-based AMR Research, was founded in 1986 and is involved in providing research and other services to companies intending to carry out tasks like transforming supply chains, introducing new products, customer profitability, customer benefits, etc.

[31] Craig Stedman, "Failed ERP Gamble Haunts Hershey," Computerworld, November 01, 1999.

SAP's R/3 ERP suite on its own was complex to install and run. But Hershey attempted to implement two other applications along with it, making the whole exercise still more complex. With more than one package in operation, there was a sharp increase in the number of touch points and interfaces, and implementation related problems were almost inevitable. Since there was more than one vendor, it was easy for each party to blame the other for any mess-up. According to Stephen Cole, Research Director, Forrester Research[32], "There were three cooks in that kitchen. That's why there is so much finger-pointing going on."[33]

Some experts were of the opinion that there were problems integrating SAP R/3 with the CRM software from Siebel and supply chain software from Manugistics. These three needed to work in tandem to process orders and schedule shipments. Inputs from consulting firms with experience in SAP-Manugistics integration could have helped Hershey avoid the catastrophe. Dave Boulanger, Senior Director with AMR Research, said, "Every facet of the business at Hershey was changing. They didn't just have one set of balls up in the air. They literally had two or three sets of balls up in the air."[34] Hershey's top management was strongly criticized in the media. Until implementation started, the company did not have a CIO position and the IT department was headed by a Vice-president. The board did not have any representative with competence in the field of IT. To address the issue, the board recruited Allen Loren, then CIO of American Express, to join the board. Hershey's management clearly did not quite understand what was required from them for the implementation of ERP software.

Another reason cited for the debacle was Hershey's lack of experience in implementing software solutions of this magnitude. Hershey had earlier implemented a few customized systems, but they were on a much smaller scale. The top management did not conduct enough groundwork before going ahead with implementation of this company-wide ERP solution. Since the groundwork was inadequate, the top management also fell short in guiding the company's technical and business managers. These two levels of management were working towards different goals. An analyst commented, "The thing Hershey can be faulted for was to announce that they had blown ERP as justification for missing earnings."[35]

The employees at Hershey were required to follow and understand how different business processes were built, in SAP R/3. They needed to be trained in how the system functioned and also how different modules interacted with one another. The employees were overloaded, as they had to learn the intricacies of not one, but three new systems, and bring out the required revisions in their activities. Further, this happened at the peak season, when they were very busy with little time to spare for the new endeavors. Analysts were of the view that though some, though not all, of the problems could have been avoided if there had been more focus on training.

During ERP implementation, Hershey did not have right processes in place to keep its senior management regularly informed about how implementation was proceeding. The consultants who were brought in subsequently said that the top management had really failed to understand the scope of the project. Dave Boulanger, Research Director, AMR Research, who worked on fixing the bugs at Hershey said, "A lack of technological savviness at the top, whether it was the CEO,

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[32] US-based technology and market research company Forrester Research, was founded in 1983. The area of focus in Forrester Research is the business implications of t3echnology change. In 2006, the company's revenues were at US$ 181.47 million, with net income at US$ 16.17 million.

[33] Andrew Osterland, "Blaming ERP," CFO Magazine, January 01, 2000.

[34] Gray Hilson, "Human Factor Plays Big Role in IT Failures," Computing Canada, March 16, 2001.

[35] Christopher Koch, "Supply Chain: Hershey's Bittersweet Lesson," www.cio.com, November 15, 2002.

or CIO, or somebody else, was to blame. If you don't understand the complexity of it all, this is precisely the kind of thing you would do."[36]

According to Jake Sanchez, co-founder, CEO and President, of Planning Technologies[37], Hershey did not have enough infrastructure to support the project. He opined, "Hershey hasn't said if it checked its network before embarking on its implementation, but a thorough assessment would have raised some red flags. By doing a full probe of the network, modeling it and profiling the applications that will run on it, Hershey could have checked the impact of the R/3, Manugistics and Siebel systems on its network. The company would have seen the loads those applications were going to put on its network, and it would have been able to identify potential problem areas. Those risks could have been eliminated."[38]

BOUNCING BACK

After the debacle, Hershey made efforts to stabilize SAP and other systems. The company appointed a CIO, George Davis from Computer Sciences Corporation. Under his leadership, a rigorous software testing program was implemented. By September-October 2000, Hershey announced that most of the initial problems with the ERP systems were fixed. In 2000, Hershey was in a position to fulfill orders for Easter. The next peak season, Halloween-Christmas also passed smoothly. By the year 2000, Hershey was back on track with sales reaching US$ 4.2 billion (Refer Exhibit III for Hershey's sales and income during 1997 to 2000).

In July 2001, Hershey redesigned the process and began working with SAP R/3 4.6, which was a part of SAP's mysap.com products. Within 11 months, the system was implemented successfully - ahead of schedule and with 20% less costs as compared to the budget estimates. Hershey also began using SAP for marketing analysis and brand management, order management, etc. The company announced that within 60 days of implementation, major improvements were made to processes like invoice verification, credit processing, etc. Hershey was using SAP's business analysis tools to measure the impact of sales and marketing programs. Hershey ensured that the mistakes committed earlier were not repeated by thoroughly testing the software before implementing it and by providing adequate training to employees. For example, Hershey carried a dry run of loading the pallets and distribution by putting bar codes on empty pallets. According to Joe Zakutney, Director, SAP Upgrade Program at Hershey, the company's success in its second round of ERP implementation was attributable to "strong program management and executive leadership, diligent planning and . . . an extensive testing and training plan."[39]

Hershey's distribution system, which included several regional warehouses, some of which were operated by third parties, was one of the primary reasons for the problems pertaining to the first major ERP at Hershey. In order to address this issue, Hershey built a 1.2 million sq. ft. distribution center, to align its distribution function with the new ERP system. With the new distribution center, Hershey was able to reduce its order cycle times by half. After putting this new facility in place, Hershey closed several warehouses.

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[36] Eric Wahlgren, "The Digital Age Storms the Corner Office," BusinessWeek Online, September 06, 2001.

[37] Founded in 1992, Planning Technologies is an Atlanta-based management consulting firm, specializing in network infrastructure consulting. In February 2001, Red Hat Inc. a company involved in open source solutions acquired Planning Technologies.

[38] Jake Sanchez, "Don't Let Systems Melt in your Hands," Inter@ctive Week, March 27, 2000.

[39] Todd R Weiss, Marc L Songini, "Hershey Upgrades R/3 ERP System Without Hitches," Computerworld, September 09, 2002.

In mid-2001, with the ERP system running successfully, Wolfe said, "With more than 18 months experience using the system, Hershey employees are much more comfortable and are able to execute at a higher level of performance. We have moved into a continuous improvement mode and have begun to realize the benefits of the new system's power."[40]

[40] Jim Romeo, "ERP: On the Rise Again," www.networkcomputing.com, September 17, 2001.

EXHIBIT I

HERSHEY'S PRODUCTS

Chocolate Candy	
Almond Joy candy bar Hershey's pot of gold boxed chocolates Cacao Reserve by Hershey's 5th Avenue candy bar Health toffee bar Hershey's milk chocolate Hershey's miniature chocolate bars Mounds candy bar Mr.Goodbar chocolate bar Hershey's nuggets chocolates Payday peanut caramel bar Reese's fast break candy bar Reese's Nutrageous candy bar Reese's peanut butter cups Reesesticks wafer bars Rolo caramels in milk chocolate Symphony milk chocolate bar	Hershey's extra dark Hershey's sticks Kissables Hershey's kisses Kit Kat wafer bar Krackel chocolate bar Mauna Loa Milk duds candy 100 Calorie bars Reese's pieces candy S'mores candy bar SKOR toffee bar Special dark Take 5 candy bar Whatchamacallit candy bar Whoopers milk balls York peppermint pattie
Pantry Items	
Bake shoppe baking pieces Bake shoppe chocolate for baking Hot cocoa mix Mounds sweetened coconut flakes Reese's peanut butter	chocolate milk mix Hershey's Cocoa Dessert toppings Hershey's syrup
Snacks	
100 calorie bars Hershey's brownies Mini kisses cookies Snack barz rice / marshmallow bars Sweet & salty granola bars	Hershey's Sandwich cookies Mauna Loa Hershey's Really nuts Snaksters
Gum and Mint	
Breathsavers mints Bubble yum bubble gum Ice breakers liquid ice mints	Ice breakers chewing gum Ice breakers mints
Sugar Confectionary	
Good and plenty candy Jolly rancher range* Zero candy bar	Payday peanut caramel bar Twizzlers range Zagnut candy bar
Hershey's solution center	
100 calorie bars Hershey's sticks Hershey's sugar free candy	

* Jolly rancher range has fruit chews, candies, gum, jelly beans, lollipops; Twizzlers offers a range of candies.

Source: www.hersheys.com.

EXHIBIT II

HERSHEY – STOCK PRICE CHART (1998 – 2002)

Source: www.bigcharts.com.

EXHIBIT III
HERSHEY FOODS CORPORATION – STATEMENT OF INCOME

(In US$ 000)

	2000	1999	1998	1997
Net Sales	**4,220,976**	**3,970,924**	**4,435,615**	**4,302,236**
Costs and Expenses				
Cost of Sales	2,471,151	2,354,724	2,625,057	2,488,896
Selling, marketing and administrative	1,127,175	1,057,840	1,167,895	1,183,130
Gain on sale of business		(243,785)		
Total Costs and Expenses	**3,598,326**	**3,168,779**	**3,792,952**	**3,672,026**
Income before Interest and Income taxes	622,650	802,145	642,663	630,210
Interest expense net	76,011	74,271	85,657	76,255
Income before income taxes	546,639	727,874	557,006	553,955
Provision for income taxes	212,096	267,564	216,118	217,704
Net Income	**334,543**	**460,310**	**340,888**	**336,251**

Source: Annual Reports, Hershey Foods Corporation 1998, 1999 and 2000.