LOTUS DEVELOPMENT CORPORATION

EXECUTIVE SUMMARY

Lotus Development Corporation's (LDC) mission is to "provide innovative solutions to business problems through software and supporting services." Over the last three years LDC has only been moderately successful in accomplishing its mission. Recent difficulties in upgrading Lotus 1-2-3 have tarnished the company's reputation. Despite these difficulties LDC still has the largest user base of any spreadsheet program. However, that base is eroding. Therefore, the first critical issue for LDC is maintaining dominance in the spreadsheet segment of the market. To accomplish this LDC must change its marketing strategy to focus more on service and technical support. LDC has recently been successfully executing product diversification and Lotus 1-2-3 international market penetration strategies. These two strategies lead to the second LDC critical issue. That is, the additional opportunities in the international market. In order accomplish this, LDC must begin diversifying its international product line. The opportunities available in the database and interconnectivity markets present LDC with its third critical issue. Recent changes provide LDC with an opportunity to secure a stronger position in these growth segments. LDC should being making the necessary R&D expenditures and building the technical competence now to secure such a position. Finally, the industry is facing a programmer labor shortage. This shortage could increase labor cost. This is LDC's fourth critical issue. Using current computer aided system engineering (CASE) tools LDC can reduce the impact of this coming shortage.

INTERNAL ANALYSIS

Mission/Goals/Strategies

Lotus Development Corporation's (LDC) mission is been to "provide innovative solutions to business problems through software and supporting services, and in the process, create a company that will become preeminent in the software industry." From its inception in 1982, LDC has been very successful in accomplishing its mission. Its primary product Louts 1-2-3 (123), has captured more overall market share then any other similar product (see Appendix 1). LDC's current strategy is to maintain its dominance in the spreadsheet segment and to diversify its product line into other software market segments. In order to maintain its dominance in the spreadsheet segment, LDC has attempted to upgrade 123 and increase the number of platforms upon which it can be used. LDC has been only moderately successful in its upgrading strategy. Following the example set by other software houses, LDC announced that it would have a new version, namely 123 3.0, available April 1987. The new version 3.0 was not available until two years later. This failure to timely distribute an upgrade significantly damaged LDC's image. LDC's ability to modify 123 to execute on various platforms has been more successful. For a listing of various versions of 123 and their related platforms see Appendix 2. Another LDC success has been in its penetration of international markets. See Appendix 3 for LDC's increase international sales percentages. As of 1989, 72% of LDC's revenue came from sales of

123. LDC has been attempting to reduce this dependence on 123 by diversification. The main thrust of its diversification plan is to acquire new products through acquisitions and strategic alliances. For a list of recent acquisitions and strategic alliances see Appendix 4.

Finance

Over the past six years LDC has had an average annual sales growth rate of 25% and an average net profit margin of 13% (see Appendix 5). Net profit margin has recently been declining. See Appendix 5 for net profit margin trends. The downward march in net profit margin correlates strongly with the upward swing in marketing expense (see Appendix 5). As of 1990, LDC was spending 40% of its net sales in marketing. This is well above the 30% average for the top software firms. This decreasing effectiveness of LDC's marketing dollar may be due to the difficulties in releasing 123 3.0, the increase in competitive pressures, or the currently used marketing techniques. Whatever the cause, LDC's marketing dollar effectiveness has declined by 23% for its 1986 high (see Appendix 6). A review of LDC's other standard profitability ratios also indicate the recent decline in profitability (see Appendix 7).

A review of LDC's balance sheet indicated no unusual items except for the increasing use of leverage. See Appendix 8 for a review of these changes. This issue is borne out by a review of LDC's standard leverage ratios (see Appendix 7). The additional debt is being used for acquisitions.

Finally, a review of LDC's historic liquidity and activity ratios indicated no significant aberrations (see Appendix 7).

Marketing

LDC built its early success on the development of a user-friendly product and a prowess for marketing.

As noted above, LDC's current strategy is to diversify its product line. See Appendix 9 for a list of current products offered by LDC. C.W. Hofer's Product/Market Evolution Portfolio Matrix (the matrix), classifies a company's portfolio of products by their location on the product life cycle curve and by the company's competitive position within that market segment. This matrix also indicates the relative size of the market by the size of the circle placed on the grid and the company's market share by a pie slice of that circle. Appendix 10 presents LDC's products in this matrix. As can be seen by reviewing this matrix most of LDC's products are in the growth or shake out stages and only in one product does LDC have a strong competitive position (i.e. 123). The spreadsheet market segment is in the shake out phase. Unfortunately, LDC has been shaken. The problems with the delivery of 123 3.0 caused a precipitous decline in unit shipments of both 123 and LDC's other integrated package, Symphony. During 1988 and 1989, unit shipments decreased by 13% and 8%, respectively. Fortunately, by 1990 shipments rebounded by 67% (see Appendix 11). Yet sales of 123 3.0 still lag behind expectation and further declines are expected. Additionally, corporate satisfaction polls have indicated that 123 is falling behind its competitors.

LDC is in an average to weak competitive position in all other products it offers. Although LDC does not have a strong competitive position in any of these various other product segments it does have an average postion in three important groups, namely, graphics, databases, and word processing.

Finally, LDC is in two segments in which it is weak competitively. First is the information segment. Second is the utilities segment.

LDC has established a small foothold with its Notes database system for work groups in the network market.

Once a customer purchases a software product the "sale" is just beginning. The customer often needs general and technical after purchase product support. LDC provides such services under its Corporate Accounts Program and the MultiValue Plan. LDC also offers a Small Business Kit that bundles 123 and special business add-ons plus six months of toll-free support.

LDC products are generally priced higher then the competition. In January 1989 LDC raised its wholesale price and eliminated volume discounts. Concurrently LDC began offering rebates for dealer customer support expenditures.

Production

Creating software is a very labor intensive task. Once the software is produced its reproduction is a relatively simple matter.

Organization

As of 1984, LDC had a functional organization structure. Over the next four years that format evolved into a divisional structure. LDC also made swiping staffing changes during the early part of 1988. These staffing changes were made in an attempt to change the corporate culture from one of "jeans and T-shirts" to one of "suits and ties."

ANALYSIS OF THE EXTERNAL ENVIRONMENT

General Competition

The worldwide software market is growing at about 12% per year. Within the micro software segment there are three large firms and thousands of smaller independents. The big three are: Microsoft, LDC and Ashton-Tate. The oligopoly nature of the industry continues to grow as the big three acquire the smaller competitors. Although price competition does not appear to be a factor as of yet, price competition can be expected to heat up.

Much like LDC, Ashton-Tate was founded on a single product, dBase II. Delays and problems with dBase IV have resulted in Aston-Tate's share of the database market dropping from 63% in 1985 to 43% in 1989. As can be seen on Appendix 12 and 13, Ashton-Tate has been experiencing a decline in its financial postion. These difficulties have put Ashton-Tate's dominance in a precarious position.

LDC has been experiencing many of the same problems as Aston-Tate. However, by 1990 LDC sales and profitability seem to have recovered (see Appendix 12). Comparing LDC's leverage position to that of the other competitors shows that LDC is about two times as leveraged (see Appendix 13).

Like the other two competitors Microsoft was founded on a single product. However, unlike the others it was not an application software but the operating system MS-DOS. It is currently the standard operating system for IBM compatible computers. In all measures of financial performance Microsoft is clearly the leader (see Appendix 13).

Potential Entrants

The cost of entry into the software manufacturing business is low. Yet there are some significant barriers that make large scale success difficult. Probably the strongest barrier is product switching cost. The difficulty in obtaining self space for new products also blocks potential entrants.

Suppliers

Most of the material that go into the actual manufacturing of a software package is generic and suppliers have little influence over the industry. One major input stands out as an exception. Labor. The Bureau of Labor Statistics estimates that the demand for programmers and system analyst will double its 1984 level by 1995.

Buyers

No single buyer has influence over the market.

Substitutes

Few substitutes offer the unique flexibility of personal computer software. Therefore, substitutes have little influence on this market.

Legal/Political/Union

The illegal copying of software cost U.S. software firms hundreds of millions of dollars annually in lost revenue. This situation is particularly problematic in countries with lenient or no copyright laws. Recent litigation has focused on a company's right to develop software that resembles existing products. This "look and feel" litigation could have major implications for the industry if the courts resolve it liberally. So far the courts have not taken such a liberal position.

Another uncertainty facing the software industry is the U.S. government's restraints on international technology transfer especially to Eastern Bloc countries. In 1992 Western Europe plans to integrate into one market. Many fear that such integration may result in additional trade barriers which will create a fortress Europe. Political and economic changes are also occurring in Eastern Europe and the Soviet Union. These changes could result in new markets for US. products.

There is no significant union influence in the software industry.

Economy

There are many factors that can result in economic swings. Although the fact that the percentage change in U.S. GDP is decreasing while U.S. interest rates are increasing is not conclusive, it does lend credence to the notion that the 1990s may begin with a U.S. economic down turn.

Technology

Computer hardware and software technology changes rapidly. Some trends do appear certain, however. Computer hardware will get more powerful. This increased computing power will allow computers to utilize more flexible software. There are other trends toward increased interconnectivity and interoperability.

In regards to programmer productivity, new computer aided software engineering (CASE) tools are becoming available. These tools hold out the promise of dramatically increasing programmer productivity.

INTEGRATION OF MAJOR STRATEGIC ISSUES

Integration of Issues

On the basis of the pervious analysis several LDC strengths emerge. The Lotus name recognition as well as the large 123 user base represents LDC's greatest assets. LDC is also one of the top three competitors in an industry dominated by only three competitors. This position gives LDC access to all distribution channels and some influence over those channels. Other LDC strengths include its penetration into the international market and its presence in the graphics, database, and word processing markets.

Although LDC's strengths provide it with a strong competitive position, some weaknesses have recently appeared. The two year delay in the release of 123 3.0 damaged LDC's credibility as a well ran company. LDC has been increasing its use of debt to acquire other firms. While the use of debt to finance expansion is not necessarily a negative, it does increase the company's risk in the event of a sales downturn. LDC has been developing LAN products but is still in a relatively weak competitive position in this growing segment. LDC has also been reorganizing its structure and attempting to modify its culture. Such changes often create uncertainty and can lower productivity during the transition period. LDC has also shown a marked decrease in its marketing dollar effectiveness.

Besides the above weaknesses LDC has certain threats from the external environment. As the competition between the big three companies heats up, price competition may increase. A threat to LDC is the widening gap between the supply of software programmers and the demand for them. The inability of the industry to devise methods of protecting its software from illegal copying and recent "look and feel" litigation also poses threats. Another threat to LDC's foreign competitive position is the U.S. government's continuing restriction on international technology transfer and the potential building of fortress

Europe. Finally, the U.S. economy many be facing an economic slow down.

The external environment also provides LDC with some opportunities. The recent failures of Ashton-Tate in the database segment may indicate an opening into that segment. The opening up of the Eastern Bloc countries also provides opportunities in the international markets. The increased demand for personal computer interconnectability and interoperability provide LDC with some strategic development opportunities. Finally, CASE tools may help in dramatically increasing programmer productivity.

These strengths, weaknesses, opportunities and treats are summarized in the S.W.O.T. Table presented in Appendix 14.

Identification of Critical Issues

Synthesizing the above items produce several critical issues that must be addressed by LDC management. These are:

1. The serious threat to LDC's dominance in the spreadsheet segment of the personal computer software market.
2. The opportunities that exists to expand LDC's current presence in the international market.
3. The opportunities that exist to expand product line into the database and interconnectivity markets.
4. The new technologies that may improve labor force productivity providing an opportunity to reduce production costs.

AVAILABLE ALTERNATIVE STRATEGIES

Corporate Strategy

LDC's stated corporate strategy is to diversify its product line. It has accomplished this strategy through acquisitions of other products and some in-house development. LDC could change its strategy to concentrate on its troubled primary spreadsheet segment. However, such a policy has little to recommend it. The rapid and uncertain pace of the software industry could quickly undercut a concentrated competitor. A concentration strategy would also require LDC to retrench which would destroy gains from recent acquisitions. Therefore, LDC is left with either a continued growth through diversification or stability strategy.

It might be possible for LDC to continue to diversify its product line by buying additional companies and thereby increasing its market share. However, such a strategy would require either additional debt or the issuance of stock. It seems unlikely given LDC's current leverage position that additional debt would be cost effective. However, LDC could reissue its treasury stock or issue new stock.

LDC could also follow a stability strategy. Under this approach LDC would seek to consolidate its product diversification gains, improve its existing products, and focus on creating synergy between its products.

These approaches are not mutually exclusion. For example, LDC may want to consolidate its gains in the word processing and graphics markets while simultaneously aggressively expanding in the spreadsheet segment of the international market.

Business Strategy

According to Michael E. Porter, a noted corporate strategist, there are three generic business level strategies. These are: cost leadership, differentiation, and focus. Using a cost leadership strategy a company attempts to position itself as the low cost producer. In a differentiation strategy a company differentiates its product such that the buyers perceive that it has increased value. Finally, in a focused strategy a company specializes in niche market that is not being serviced by other competitors. Each of these strategies can be applied to different products. For example, LDC may want to compete using a differentiation strategy for 123 and Symphony while offering its word processing and utilities products for a lower price then its competitors.

RECOMMENDATIONS AND IMPLEMENTATION PLAN

From the alternatives available LDC should continue its strategy of maintaining dominance in the spreadsheet market and discontinue its diversification through acquisition strategy.

Because the sales of LDC's primary spreadsheet products are such a large portion of the company's volume and because it holds such a significant portion of the existing user base, LDC should aggressively compete in this segment. In order to secure a dominate position LDC should continue to expand the number of available 123 platforms, continue to improve 123's features, and changes its marketing strategy to differentiate 123 based on services to corporate customers.

LDC's current plans for improving 123 appear adequate. However, LDC's 123 marketing strategy requires modification. Although some of LDC's marketing strategies cater to its corporate customers they do not go far enough. Recently LDC has been offering rebate programs to dealers for customer support. This is the wrong strategy. LDC's mission is to "provide innovative solutions to business problems," not to let its dealers do it. Quality technical support and services are what customers need and insuring that dealers provided such services is difficult to monitor. LDC must differentiate itself on service as this is what increases customer loyalty and sales. In order to execute this new marketing strategy LDC should phase out its rebate program over the next six months, phase in a free telephone technical support system over the next year while simultaneously phasing out the Business Kits' paid for support, immediately begin offering site licensing to its major clients, and immediately gearing up its sales force to solicit new corporate clients and provide consulting services. All these steps and perhaps more should be designed to provide maximum service.

LDC should discontinue its acquisition strategy for several reasons. First, time is needed to integrate recent acquisitions. Second, recent organizational and staffing changes need time to settle so that overall efficiency can be gained. Lastly, LDC is running out of capital for such acquisitions.

LDC's should focus on the international markets. With European integration drawing near and the Eastern Bloc opening up it is important that LDC gain as much of a foothold in the international arena as possible. Much of LDC's international revenues come from the sale of 123. This product is already well situation internationally. LDC should now use its experience to internationally market its newer products. To implement this strategy a product and place must be identified based on the greatest potential for success. The product must then be modified to fit customer needs. Finally, appropriate marketing and distribution channels must be selected. LDC should first focus on the more easily converted products so as to get as quick a penetration as possible. However, as soon as possible LDC should begin gaining experience in the database and interconnectivity markets.

The database and interconnectivity markets offer LDC its greatest future product opportunities. LDC is only in an average competitive position in these markets but these markets are in the growth stage. Additionally, Ashton-Tate's recent difficulties have opened a window of opportunity. Therefore, LDC should begin increasing R&D expenditures in these types of products and using its alliance with Sybase, Inc. to the full extent possible.

Finally, the use of CASE tools provides LDC with an opportunity to increase programmer productivity and thereby decrease the impact of the predicted future labor shortage. If these tools prove successful they will also put LDC at a cost advantage that should make any future price competitions less damaging. To implement this recommendation LDC should establish a small group of programmers to experiment with this new technology. Once experience is gained and the technology proven its use should be expanded.

APPENDICES

(1 through 14)

LOTUS DEVELOPMENT CORPORATION
BREAKDOWN OF MARKET SHARE FOR THE SPREADSHEET SEGMENT
APPENDIX 1

Product	Company	Market Share*
1-2-3	Lotus	67%
Excel	Microsoft	13%
Supercalc	Computer Ass	4%
Other		16%
		100%

Lotus has captured more overall market share then any similar product.

*The figures for market share are not based on total sales for the year but rather are based on the "installed base," i.e. the total sales through 1989.

Source: Quinn, J. (1989, September 15). Getting with the program(s): Building a computer book collection. Library

LOTUS DEVELOPMENT CORPORATION
LOTUS 1-2-3 AVAILABLE EQUIPMENT AND OPERATING SYSTEMS
APPENDIX 2

Lotus 1-2-3 was originally designed to run on IBM Compatible computers using the MS-DOS operating system. From that beginning Lotus 1-2-3 has been expanded to run on several different equipment platforms and operating systems. Below is a list of currently available versions of Lotus 1-2-3 and the systems for which they are designed.

1-2-3 Version Name	Operating System	Computer Platform
123	MS-DOS	Personal Computer
123/G	OS/2	Personal computer
123/M	IBM	IBM mainframe
123/Unix	Unix	Sun workstations
123 for VAX/VMS	VAX/VMS	DEC mainframe
123 for ALL-IN-1	VAX/VMS	DEC mainframe

LOTUS DEVELOPMENT CORPORATION
GROWTH IN INTERNATIONAL SALES
APPENDIX 3

Year	Foreign Sales (In Millions of Dollars)*	Percentage of Foreign Sales/Total Sales
1985	$30.3	13%
1986	53.5	19%
1987	97.6	25%
1988	147.6	31%
1989	204.5	37%
1990	293.1	43%

Lotus Development Corporation effectively penetrated the international market.

LOTUS DEVELOPMENT CORPORATION
RECENT ACQUISITIONS AND STRATEGIC ALLIANCES
APPENDIX 4

ACQUISITIONS:

Company	Product
GNP	HAL
Graphics Communication	Freelance and Datext
Samna Corporation	Ami and Ami Professional

STRATEGIC ALLIANCES:

Company	Purpose
IBM	Jointly develop and market products
DEC	Jointly develop and market products
Sun Microsystems	Jointly develop and market products
Sybase, Inc.	Joint development, marketing, and distribution of future products*

*Included Louts' purchase of 15% equity interest in Sybase

LOTUS DEVELOPMENT CORPORATION
CONSOLIDATED INCOME STATEMENT
AND RELATIVE SIZE ANALYSIS
(Amounts in Thousands)
APPENDIX 5

Increasing marketing expense is resulting in lower net profit margins.

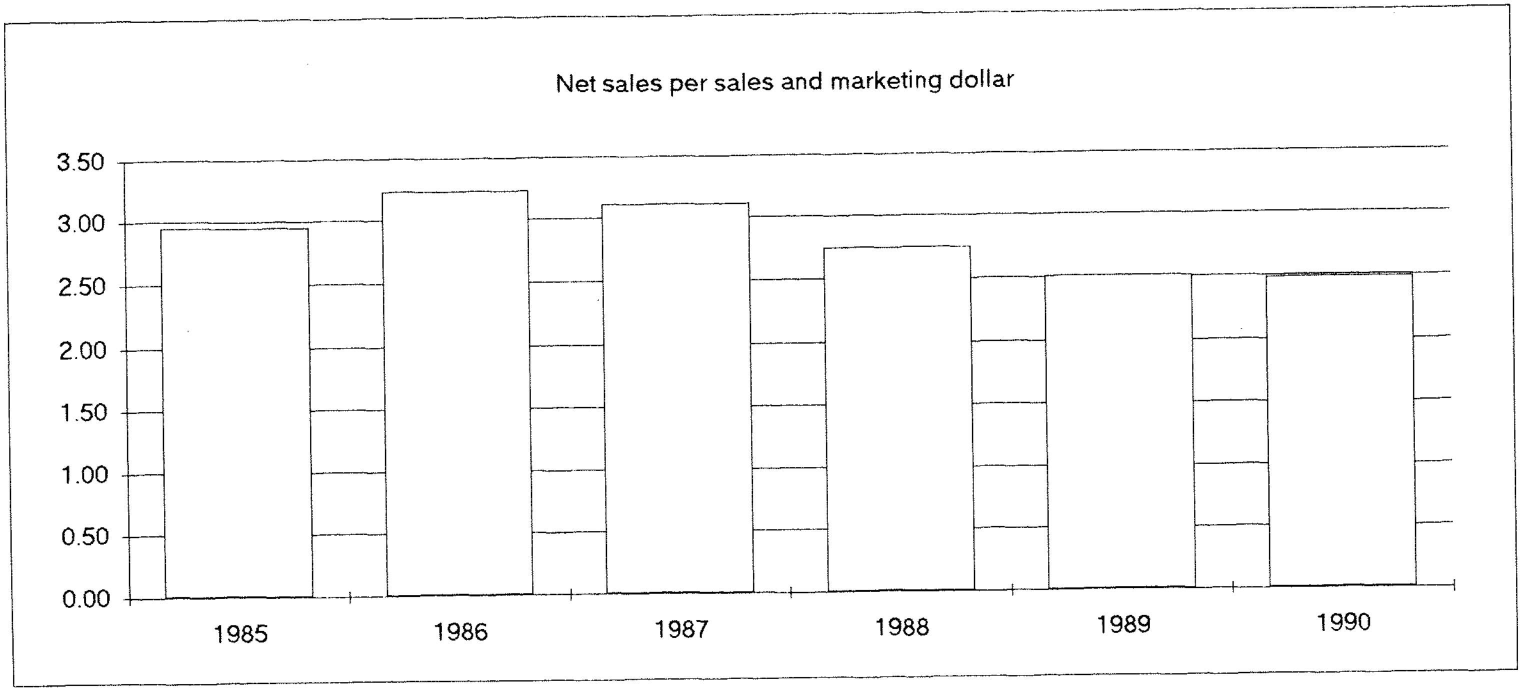
	1985		1986		1987		1988		1989		1990	
Net sales	225,526	100.0%	282,864	100.0%	395,595	100.0%	468,547	100.0%	556,033	100.0%	684,512	100.0%
Cost of sales	43,706	19.4%	54,724	19.3%	68,676	17.4%	107,033	22.8%	113,577	20.4%	142,014	20.7%
Gross Margin	181,820	80.6%	228,140	80.7%	326,919	82.6%	361,514	77.2%	442,456	79.6%	542,498	79.3%
Costs and expenses:												
Research and development (R&D)	22,324	9.9%	39,167	13.8%	58,420	14.8%	67,629	14.4%	85,715	15.4%	102,650	15.0%
Sales and marketing	76,376	33.9%	87,455	30.9%	126,848	32.1%	170,750	36.4%	221,745	39.9%	275,874	40.3%
General and administrative	22,189	9.8%	37,662	13.3%	46,546	11.8%	54,124	11.6%	61,078	11.0%	62,497	9.1%
Charge for purchased R&D	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	52,966	7.7%
Total operating expenses	120,889	53.6%	164,284	58.1%	231,814	58.6%	292,503	62.4%	368,538	66.3%	493,987	72.2%
Operating income	60,931	27.0%	63,856	22.6%	95,105	24.0%	69,011	14.7%	73,918	13.3%	48,511	7.1%
Interest income, net	3,932	1.7%	3,311	1.2%	3,960	1.0%	9,568	2.0%	5,644	1.0%	6,094	0.9%
Other income	2,540	1.1%	3,863	1.4%	3,853	1.0%	1,295	0.3%	5,389	1.0%	(1,779)	(0.3%)
Income before provision for income taxes	67,403	29.9%	71,030	25.1%	102,918	26.0%	79,874	17.0%	84,951	15.3%	52,826	7.7%
Provision for income taxes	29,253	13.0%	22,730	8.0%	30,875	7.8%	20,949	4.5%	16,990	3.1%	29,572	4.3%
Net income	38,150		48,300		72,043		58,925		67,961		23,254	

The charge for purchased R&D caused net profit margin to drop to only 3%. Excluding this charge net profit margin would have been 11%.

Net profit margin reaches a high in 1987 and then begins to decline.

Statistics	1985	1986	1987	1988	1989	1990	Average
Net sales growth rate	n/a	25.4%	39.9%	18.4%	18.7%	23.1%	25.1%
Net profit margin	16.9%	17.1%	18.2%	12.6%	12.2%	3.4%	13.4%

LOTUS DEVELOPMENT CORPORATION
NET SALES PER SALES AND MARKETING DOLLAR
APPENDIX 6



	1985	1986	1987	1988	1989	1990
Net sales	225,526,000	282,864,000	395,595,000	468,547,000	556,033,000	684,512,000
Sales and marketing expense	76,376,000	87,455,000	126,848,000	170,750,000	221,745,000	275,874,000
Net sales per sales and marketing dollar	2.95	3.23	3.12	2.74	2.51	2.48

The 1990 value represents a decrease of over 23% in Lotus Development Corporation's marketing dollar effectiveness from its 1986 high.

LOTUS DEVELOPMENT CORPORATION
SELECTED FINANCIAL RATIOS
APPENDIX 7

	1985	1986	1987	1988	1989	1990
Liquidity Ratios						
Quick ratio	2.9	2.2	2.5	3.5	3.5	2.2
Current ratio	3.1	2.3	2.6	3.7	3.7	2.3
Profitability Ratios						
Return on investment (ROI)	20.5%	23.1%	22.7%	14.0%	11.2%	3.5%
Return on equity (ROE)	27.5%	42.1%	35.7%	25.4%	24.4%	7.5%
Activity Ratios						
Days of cash	147.4	120.2	152.2	149.9	180.5	130.8
Inventory turnover	24.7	41.6	43.0	25.9	24.0	31.5
Days of inventory	76.4	45.3	48.9	61.7	74.5	55.8
Average collection period	59.0	48.8	42.0	71.7	64.1	64.2
Accounts payable period	n/a	212.9	162.7	143.2	194.2	226.1
Leverage Ratios						
Long-term Debt to capital	1.3%	27.5%	14.8%	45.4%	77.7%	56.5%
Debt to equity	34.1%	82.4%	57.2%	81.8%	117.1%	112.3%
Total liability/total assets	25.4%	45.2%	36.4%	45.0%	53.9%	52.9%

Excluding the charge for purchased R&D ROI and ROE would have been 11.6% and 24.6%. respectively.

These figures show a downward trend in

Increases due to debt used for acquisitions.

LOTUS DEVELOPMENT CORPORATION
CONSOLIDATED BALANCE SHEET
AND RELATIVE SIZE ANALYSIS
(Amounts in Thousands)
APPENDIX 8

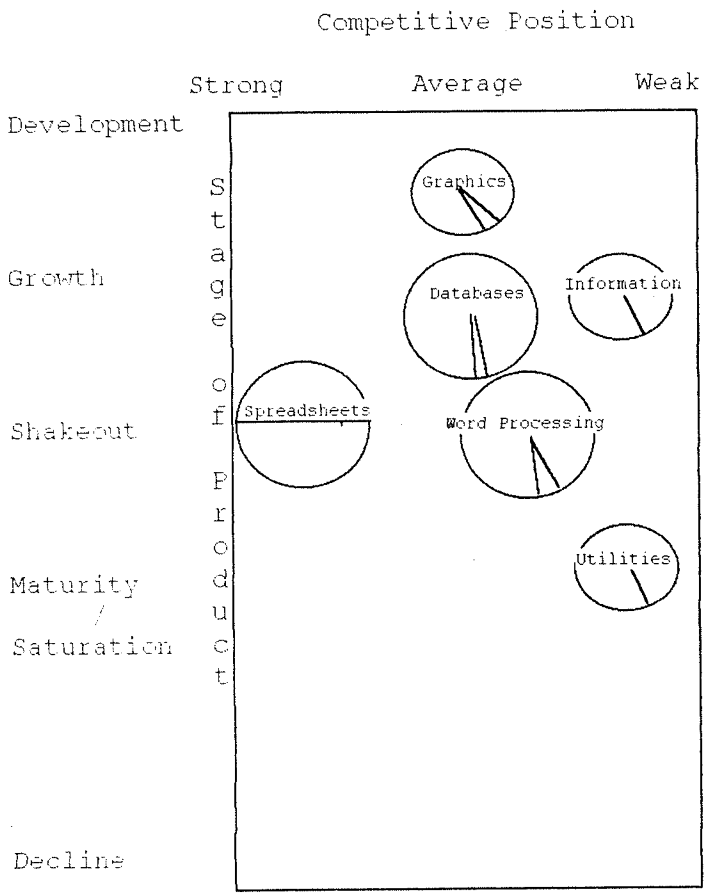
	1985		1986		1987		1988		1989		1990	
Current assets:												
Cash and cash investments	91,053	49.0%	93,157	44.6%	164,909	51.9%	192,433	45.6%	274,977	45.5%	245,386	37.4%
A/R, net	36,433	19.6%	37,844	18.1%	45,541	14.3%	92,035	21.8%	97,712	16.2%	120,346	18.3%
Inventories	9,147	4.9%	6,794	3.3%	9,210	2.9%	18,088	4.3%	23,171	3.8%	21,700	3.3%
Prepaids and other	2,416	1.3%	6,396	3.1%	5,665	1.8%	7,430	1.8%	13,937	2.3%	12,036	1.8%
Total current assets	139,049	74.8%	144,191	69.0%	225,325	70.9%	309,986	73.4%	409,797	67.8%	399,468	60.8%
Property and equipment	38,203	20.6%	40,964	19.6%	51,920	16.3%	86,953	20.6%	129,702	21.5%	147,758	22.5%
Software and intangibles	8,124	4.4%	23,270	11.1%	32,297	10.2%	16,026	3.8%	27,100	4.5%	62,074	9.5%
Investments and other assets	427	0.2%	584	0.3%	8,111	2.6%	9,157	2.2%	37,678	6.2%	47,507	7.2%
	185,803	100.0%	209,009	100.0%	317,653	100.0%	422,122	100.0%	604,277	100.0%	656,807	100.0%
Current liabilities:												
Notes payable	3,514	1.9%	2,680	1.3%	7,736	2.4%	9,441	2.2%	2,975	0.5%	5,661	0.9%
Accrued employment compensation	3,914	2.1%	11,350	5.4%	15,287	4.8%	11,771	2.8%	17,688	2.9%	23,305	3.5%
A/P and accrued expenses	17,085	9.2%	30,554	14.6%	31,685	10.0%	45,491	10.8%	63,125	10.4%	87,074	13.3%
Deferred revenue	3,550	1.9%	6,221	3.0%	11,734	3.7%	16,592	3.9%	15,798	2.6%	16,386	2.5%
Income taxes payable	17,365	9.3%	12,055	5.8%	19,165	6.0%	1,231	0.3%	10,253	1.7%	40,081	6.1%
Total current liabilities	45,428	24.4%	62,860	30.1%	85,607	26.9%	84,526	20.0%	109,839	18.2%	172,507	26.3%
Deferred income taxes	1,833	1.0%	1,556	0.7%	0	0.0%	10,400	2.5%	13,693	2.3%	14,861	2.3%
Long-term debt	0	0.0%	30,000	14.4%	30,000	9.4%	95,000	22.5%	202,440	33.5%	160,000	24.4%
Commitments and contingencies	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total liabilities	47,261	25.4%	94,416	45.2%	115,607	36.4%	189,926	45.0%	325,972	53.9%	347,368	52.9%
Stockholders' equity:												
Preferred stock	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Common stock	171	0.1%	526	0.3%	546	0.2%	556	0.1%	579	0.1%	591	0.1%
Additional paid-in capital	59,044	31.8%	66,624	31.9%	83,274	26.2%	109,429	25.9%	139,762	23.1%	157,368	24.0%
Retained earnings	87,368	47.0%	135,317	64.7%	207,360	65.3%	266,285	63.1%	334,246	55.3%	357,500	54.4%
Treasury stock	(3)	0.0%	(83,135)	(39.8%)	(87,743)	(27.6%)	(144,030)	(34.1%)	(194,937)	(32.3%)	(206,587)	(31.5%)
Translation adjustment	(247)	(0.1%)	(776)	(0.4%)	243	0.1%	3	0.0%	(1,345)	(0.2%)	567	0.1%
Deferred employee compensation	(7,791)	(4.2%)	(3,963)	(1.9%)	(1,634)	(0.5%)	(47)	0.0%	0	0.0%	0	0.0%
Total stockholders' equity	138,542	74.6%	114,593	54.8%	202,046	63.6%	232,196	55.0%	278,305	46.1%	309,43[illegible]	47.1%
Total liabilities and stockholders' equity	185,803	100.0%	209,009	100.0%	317,653	100.0%	422,122	100.0%	604,277	100.0%	656,807	100.0%

As long term debt increases and equity decreases as a percent of total assets, Lotus Development Corporation becomes more leverage. This produces the opportunity for greater gains but also increases Lotus' financial risk.

LOTUS DEVELOPMENT CORPORATION
LIST OF PRODUCTS
APPENDIX 9

Product	Description
Lotus 1-2-3	Spreadsheet program
Agenda	Personal information manager
Manuscript	Scientific and technical desktop publisher
Ami and Ami Professional	Word processing package for Windows systems
Symphony	Integrated word processing, database, graphic and communication package
Freelance +	Charting and diagramming program
Graphwriter II	Production charting program
Magellan	Disk management system
Data Lens	Application programming interface
Lotus Metro	Memory-resident desktop manager
Notes	Document-oriented database for use by work teams
One Source Database	Financial database
CD/Networker	Combines information available for One Source with local area network support and allows network users to access multiple CD ROMs

LOTUS DEVELOPMENT CORPORATION
PRODUCT/MARKET EVOLUTION PORTFOLIO MATRIX
APPENDIX 10



Comments and Notations

This analysis is based on available quantitative and qualitative information.

Lotus Products are classified as follows:

Spreadsheet products:	Lotus 1-2-3, Symphony, and Agenda
Database products:	Symphony Lotus 1-2-3, Agenda, and Notes
Word processing products:	Manuscript. Ami Professional, and Symphony
Graphic products:	Freelance + and Graphwriter II
Utility products:	Magellan, Lotus Metro, and Data Lens
Information products:	One Source Database, and CD /Networker

From C.W. Hofer, "Conceptual Construct for Formulating Corporate and Business Strategies" (Dover, Mass: Case Publishing), no. BP-0041,p. 3. Copyright 1977 by Charles W. Hofer.

LOTUS DEVELOPMENT CORPORATION
UNIT SHIPMENT GROWTH OF 1-2-3 AND SYMPHONY
(Amounts in Millions)
APPENDIX 11

Year		Annual	Annual Growth Rate	Cumulative
1986		0.3	n/a	2.0
1987	(1)	1.5	400%	3.5
1988		1.3	(13%)	4.8
1989	(2)	1.2	(8%)	6.0
1990		2.0	67%	8.0

(1) Release of Lotus 3.0 scheduled for April 1987

(2) Lotus 3.0 actually released June 1989

Shipments declined in 1988 and 1989 but rebounded in 1990.

LOTUS DEVELOPMENT CORPORATION
COMPARATIVE FINANCIAL DATA FOR LEADING COMPETITORS
(Amounts in Millions)
APPENDIX 12

	1986	1987	1988	1989	1990	Average
Lotus Development						
Net Sales	$282.9	$395.6	$468.5	$556.0	$684.5	$477.5
% change in s	n/a	40%	18%	19%	23%	25%
Net Income	48.3	72.0	58.9	68.0	23.3	54.1
Net Profit Ma	17%	18%	13%	12%	3%	13%
Microsoft						
Net Sales	$197.5	$345.9	$590.8	$803.5	$1,183.4	$624.2
% change in s	n/a	75%	71%	36%	47%	57%
Net Income	39.3	71.9	123.9	170.5	279.2	137.0
Net Profit Ma	20%	21%	21%	21%	24%	21%
Ashton-Tate						
Net Sales	$210.8	$267.3	$307.3	$265.3	$230.5	$256.2
% change in s	n/a	27%	15%	(14%)	(13%)	4%
Net Income	30.1	43.1	47.8	(28.6)	(18.1)	14.9
Net Profit Ma	14%	16%	16%	(11%)	(8%)	5%

Excluding the impact of purchased R&D, this value is 11%

Ashton-Tate has been experiencing declining sales and losses over the past two years.

Microsoft is the most financially sound company among the Big three.

LOTUS DEVELOPMENT CORPORATION
COMPARISON TO INDUSTRY
SELECTED FINANCIAL RATIOS
APPENDIX 13

	Lotus Development		Ashton-Tate		Microsoft	
	1989	1990	1989	1990	1989	1990
Quick ratio	3.52	2.19	2.25	1.96	2.59	3.37
Current ratio	3.73	2.32	3.00	2.41	2.95	3.85
A/R turnover	n/a	n/a	6.26	6.30	7.23	6.54
Net sales/employees	n/a	n/a	185,538	142,483	199,041	210,017
Total liability/total assets	0.54	0.53	0.26	0.31	0.22	0.17

Lotus Development Corporation is about two times as leveraged as either of its two major competitors. This may make it more expensive to acquire more debt resources.

Ashton-Tate's financial condition has had a general decline.

LOTUS DEVELOPMENT CORPORATION
S.W.O.T. TABLE
Appendix 14

Strengths

Largest portion of installed spreadsheet user base
Presence in graphics, database and word processing markets
Excellent name recognition
One of the top three personal computer software companies
Large portion of sales originating form the international market

Weaknesses

Damage to image due to delay in releasing Lotus 1-2-3 version 3.0
Decreasing effectiveness of marketing dollar
Decreasing profitability
Increasing use of debt financing
Weak competitive position in growing interconnectivity market
Organizational restructuring

Opportunities

Ashton-Tate's failures in the database segment
Opening up of Eastern Bloc countries
Customer demands for interoperability
Increasing use of interconnectivity
Increasing availability of CASE tools

Threats

Potential price competition
Widening gap between demand and supply of programmers
Program piracy
"Look and feel" litigation
US government restrictions on technology transfer
Potential for fortress Europe
Potential U.S. economic downturn and higher interest rates