

# Dell case: study of expansion strategy

Education



## **Introduction**

Dell Computers was started by Michael Dell in 1984. Dell's primary differentiator was its business model. It sold primarily on the B2C market and custom-built personal computers on demand. Therefore, it had a very low inventory in comparison to its competitors. As a result of this, Dell was able to operate quite efficiently and profitably in its niche market. By the late 1980s - the early 1990s, Dell noticed that its market share was only 1% of the total and that industry amalgamations could potentially force Dell out of the market.

It was time to make a decision; it could remain status quo or pursue an aggressive growth strategy. The latter option proved to be favorable and Dell expanded into the B2B marketplace through a growth plan that focused on selling to retailers to improve its market share. The plan worked and Dell saw subsequent revenue increases of 268% within two years, compared to industry growth of 5%.<sup>1</sup> The good times came to an end in 1993 when Dell posted its first loss after eleven subsequent quarters of profit. Dell decided to more efficiently manage its liquidity, profitability, and growth and was exited the indirect retail channel where margins were exceptionally low. The retail channel had served its purpose, however, in assisting Dell as a brand to become well known throughout the market place. Following these measures, and the fact that Dell had exceptionally low relative inventory, they were able to become the first company to launch the new Pentium chip computers and maintain first-mover status with subsequent upgrades.

Michael Dell was now in a position to forecast future growth for his company.

## Statement of Problem

Michael Dell predicted that the company's growth rate for the next year would again outpace the industry. Dell needed to focus on how its working capital policy could assist in financing future growth. Further, what other internal and external financing options might assist Dell in reaching their goals?

## Recommendation

Assuming Dell's sales will grow at 50% in 1997, how would you recommend that the company fund this growth?

How much capital would need to be reduced and/or profit margin increased if the company were to fund its growth by relying only on internal sources of capital? What steps would you recommend the company take? Dell's attempt to increase its sales by 50% in 1997 will require 2 major types of investments: Investment in working capital We estimate this figure to be \$345M (please refer to Exhibit 1 for the detailed calculation). Investment in fixed assets Expansion of production will most likely require the purchase of the additional equipment.

There is no data available in the case of depreciation expenses or capital expenditures made by Dell in 1996 to support the 52% growth of sales. However, if we refer to Dell's full financial statements for 1996, we see that Dell spent \$100M on capital expenditures and we assume it will spend approximately the same amount in 1997.

From the projected figures in Exhibit 1 we conclude that Dell will be able to finance the above investments using the following funding sources:

Profit margins and management of the working capital cycle Assuming that there is a certain percentage of fixed costs in Dell's cost structure, the company will be able to increase its net profit margin from 5.1% in 1996 to 5.6% in 1997, generating a net profit of \$448M. Net margin should be sufficient to cover additional working capital of \$345 M if Dell is able to maintain its Cash Conversion Cycle (CCC) at 1996 levels of 47 days. Maintaining the CCC at the same level is crucial for this type of financing to be sufficient.

An increase in DSO by 5 days will increase working capital delta up to \$453M (refer to Exhibit 2) and will force Dell to increase margins, which may reduce revenues, or look for other sources of funding. Debt or use of the short term investment funds The use of these resources might be necessary for financing the purchase of the equipment to expand the production capacity.

Two scenarios could take place:

1. A one-off investment is required to be made at the beginning of the year. Since the company will have no possibility to generate profits or free up its working capital, it could either liquidate some of its short term investments of \$591M or get a loan. The decision will depend on whether the rate of return on investment is higher or lower than the interest rate on the loan, taking after-tax effects into consideration. If the rate of return is higher, Dell should finance the purchase of fixed assets through the loan, if it is lower, it should use its investment account to finance the capital expenditure.
2. Gradual investment in capital expenditure is possible. This could be done only by using margins generated within the year and decrease in

CCC by managing the receivables-days cycle. If the company can manage to decrease its DSO days from 50 to 40 days, it can reduce its working capital delta to \$126M (Exhibit 2), thus making the remaining net profit available for capital expenditures. How, if at all, would your answers to Question 3 change if Dell also repurchased \$500 million of common stock in 1997 and repaid its long-term debt? If Dell decides to repay its debt of \$113M and repurchase stock of \$500M, the following steps could be undertaken.

Stock repurchase A decrease in DSO by 10 days and increase in DPO by 10 days will release working capital of \$44M in addition to cash profit based on \$448M in accounting profit (most likely it is higher by the amount of depreciation). These cash amounts will then allow Dell to repurchase its stock. As Dell expands its customer base and brand penetration in the market it can start working with prepayment for its orders which will help to collect the cash faster. Further, as the size of its orders to suppliers grows, it will be able to exercise its buyer power and negotiate more favorable payment terms.

However, the following action should be taken only if Dell shareholders could earn a better return at a similar level of risk in the market. In the current situation, it seems that Dell performs better than its competitors thus it would be more appropriate to invest the \$500M of free cash in further expansion. Debt repayment If Dell increases its margin up to 6.8% it will be able to make an additional \$110M in net profit to repay the debt. Another option is to free up some funds from short term investments. The decision

will depend on whether an increase in price will lead to a significant loss of customers.

If this is the case, the company should use its current cash reserves to perform the repayment. We also note, that 0% of debt in the capital structure is most likely to be not optimal for the company, and by using leverage Dell will be able to generate better returns for its investors.

## Discussion

Explain how Dell's working capital policy is a competitive advantage for the company?

Strategy	Built-to-Order	Just-In-Time Delivery	Distribution Channels (Retail Stores)	Early Adoption of New Technology
DELL	?	?	X	?
Apple	X	X	?	X
Compaq	X	X	?	X
IBM	X	X	?	X

Built to Order: Unit production only begins after receiving customer orders over the phone or via email.

This significantly reduced the outstanding inventory and hence reduced working capital requirements for funding inventory warehousing and

inventory financing. Just-in-time Delivery: Dell's factory had close physical proximity to its suppliers. Suppliers would ship parts only after customers placed orders, for just-in-time delivery. This helped to maintain accounts payable to a minimum. No Retail Distribution Channels: Since orders were only taken via email or phone, Dell was able to cut down on the costs of maintaining distribution channels and reduce accounts receivable from distributors and retailers.

This reduced working capital requirements. Early Adoption of New Technology: Low inventory levels helped Dell to quickly switch to newer product upgrades and reduce the cost of existing inventory turnovers compared to competitors. This further reduced working capital requirements. DSI Advantage: As a result of the above strategies, Dell achieved an average DSI of 40 between 1993 and 1995, compared to Apple's 64, Compaq's 68 & IBM's 56. How did Dell fund its 52% growth in 1996?

Please be sure to distinguish between internal and external sources of funding, and to discuss the trade-off between the use of external funds in order to maintain high growth rates. The 52% growth was a result of the new Pentium chip introduction (Exhibit 3 from the case). Regarding working capital management, we noticed from Exhibit 2 from the case, excellent performance in maintaining CCC at 40 days; while product switches required double stock management. As the Pentium introduction was already launched in 1995, we assume that growth was constant and continuous during the 1996 period.

Compared to 1995, the 1996 financial performance for gross margin is lower by 1%, but net profit has increased by 1%.

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To improve the availability of cash, Dell can implement factoring on receivables (internal) or negotiate with banks for short term credit lines and overdraft accounts (external). Even if CCC remains constant during this period of growth, balance sheets analysis shows that CCC changed from \$428M in 1995 to \$689M in 1996. As the debt level remained constant during these two periods, this extra \$261M was financed with internal funds.

The two main sources of internal funds used to finance working capital and CAPEX (not detailed in case information) were: The \$272M 1996 net profit and the capital increase at \$74M (total stock value difference between 1995 and 1996). Even if Dell decided to not reduce its amount of debt, this process will allow the company to reduce the Debt/Equity ratio keeping a constant level of debt while significantly increasing equity. This strategy will bring Dell more flexibility for the future.

The firm will be able to consider different options for future growth; either the same strategy - the issuance of more debt due to their low leverage being relatively unleveraged.

## Appendix

### Exhibit 1

Projected Income statement and balance sheet items for the year 1997

Item Sales Cost of sales Gross Margin Operating expenses Operating income  
Financing and other income Income taxes 30%

Net profit 1996 (actual) 5 296 4 229 1 067 690 377 6 111 272 Growth  
Coefficient 1, 5 1, 5 1, 4

1997 (projected) 7 944 6 344 1 601 966 635 6 192 448

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Ratios : 37 1 37

DSI 50 1 50

DSO 40 1 40

DPO 47 1 47

CCC

Balance sheet items: 429 644

Inventory 726 1 089

Accounts receivable 466 699

Accounts payable 689 1 034

Working Capital 345

Additional working capital required Projections for the year 1997 were built based on the following assumptions:

1. Growth coefficient of 1, 5 was applied to income sales and cost of sales to reflect the projected 50% growth in operations
2. Growth coefficient of 1, 4 was applied to operating expenses. The assumption was made that part of operating expenses are presented by fixed costs thus they don't grow at the operations growth ration. 0% rate was taken based on the year 1996 increase.
3. Income taxes were calculated using 30% rate is the rate on income tax in 1996 (calculated as  $\text{Income taxes} / (\text{Operating income} + \text{Financing income})$ )

4. Ratios for the year 199 were calculated using the following formulas:  

$$\text{DSI} = \frac{\text{Inventory} \times 365}{\text{COS}}$$

$$\text{DSO} = \frac{\text{Accounts Receivable} \times 365}{\text{Sales}}$$

$$\text{DPO} = \frac{\text{Accounts Payable} \times 365}{\text{COS}}$$
5. We assumed that the company will maintain the average ratios for the year 1997
- 6.6. Using the reverse formula for ratios calculations we derived accounts receivable, accounts payable, and inventory for 1999 from the projected sales and COS figures.
7. We calculated Working Capital for both years using the formula:  

$$\text{Inventory} + \text{Accounts receivable} - \text{Accounts payable}$$
8. Additional working capital required: Working capital 1997 - Working Capital 1996

## Exhibit 2

Variations in working capital requirements 37 50 40 47 37 55 40 52 37 40 40  
 37 -10 days on DSO; + 10 days in DPO 37 40 50 27 Inventory, \$mln Accounts  
 receivable, \$mln Accounts payable, \$mln 644 1 088 699 643 1 197 695 643  
 871 695 643 871 869

Working Capital 1997, \$mln

Working Capital 1996, \$mln 1 033 689 1 145 689 818 689 645 689 344 456  
 129 -44 Item

DSI, days DSO, days DPO, days CCC, days

Additional working capital required, \$mln Ratios at 1996 level +5 days in  
 DSO -10 days in DSO

## Exhibit 3

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Detailed calculations relative to question N°2

1 - CCC worth calculation: (see figures in red rectangle)  $CCC = DSI + DSO - DPO$

From above table,  $CCC = \text{inventories} + \text{Accounts receivables} - \text{Accounts payable}$

$$CCC_{1995} = 293 + 538 - 403 = 428 \text{ M\$}$$

$$CCC_{1996} = 429 + 726 - 466 = 689 \text{ M\$}$$

2 - Total stocks value: (see figures in blue rectangle)

Total value = Preferred stocks + Common stocks

$$1995 = 362 \text{ M\$}$$

$$1996 = 436 \text{ M\$}$$

## References:

1. Richard Ruback, " Dell's Working Capital," Harvard Business Review 9-201-029 (2003)