NEAR EAST UNIVERSITY

FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES

DEPARTMENT OF BUSINESS ADMINISTRATION

MAN 400

GRADUATION PROJECT

MARKET-BASED PERFORMANCE MEASUREMENTS OF (DELL COMPUTER CORPORATION)

Submitted by

EBRU DİREKTOR

(Student No: 20011837)

Submitted to

Dr. AHMET ERTUGAN

February 2005

Nicosia

TABLE OF CONTENTS PAGE

LIST OF TABLES

PAGE

LIST OD FIGURES

PAGE

ABSTRACT

Businesses with a strong market orientation have a commitment to understanding customers and competitors and working as a team in building value-added customer solutions. These market-focused businesses with distinctly different behaviours, systems and measurements go beyond traditional internal performance metrics. Businesses with a strong market orientation achieve higher levels of customer retention and have to be profitable (Best, 2004).

This study aimed to explore, describe and test both the financial (internal) and market-based (external) forms of company performance on a selected company case to emphasise on the importance of marketing orientation and its contribution to competitiveness.

The study included literature search on marketing oriented thinking. Recommended steps were used in measuring the performance of the case study, Dell Computer Corporation. The performance measured was both internal and external which were explained as the financial and the marketing based performances of the company.

The conclusions reached were that companies should use both internal and external performance measurements in order to have an exact, detailed information on the company and the industry producing a more clear information on company's true performance.

Keywords: financial based performance; market-based performance; marketing orientation; performance metrics; net marketing contribution.

ACKNOWLEDGMENT

I would like to convey my sincere appreciation to my supervisor Dr. Ahmet Ertugan his invaluable advice and support. My sincere appreciation also goes to all of my lecturers in the Near East University, Business Administration Department for their support.

Last but not least I would like to thank to my husband Hüseyin, my daughter Işıl, my mother and my sister and also to my friends for their patience and who have always given me inspiration and support to study and complete this research project.

SECTION 1

THE COMPASS

1.1 Introduction

This section introduces the subject of the study, the problem statement, literature review, methodology and the brief contents of the remaining sections of the study report.

1.2 Problem Situation

A market-based business engages in three important distinguishing practices.

- It tracks market-based measures of performance.
- It measures marketing profits by product, market, or both.
- It organises around markets rather than products.

Without an external set of market-based performance metrics, a business will never know its market performance (Best, 2004). An important step in becoming a market-based business is the development of a key set of external market-based measures of performance.

To develop and implement marketing strategies that are going to increase customer satisfaction and grow profits, a business needs to be able to measure the profitability of a marketing decision. This means understanding the revenues that result from

serving a target market of customers and all the costs associated with serving that market (Best, 2004).

A common problem often arises here in most accounting systems the need to allocate overhead costs. This has the potential to distort profitability and can lead to decisions that actually reduce profitability. To grow profits, a business needs to grow net marketing contribution. Allocating overhead costs will distort net marketing contribution. If accountants persist in allocating cost, simply ask that the cost to be allocated after the net marketing contribution have been computed so that market-level profitability can be clearly observed.

With market-based management, the focus is on customer. How much revenue does the customer produce? What are the costs acquiring customers? What are the costs of serving those customers after they have been acquired? What is the net marketing contribution per customer in different segments of the market? Measures of marketing profitability and marketing productivity helps us evaluate the profit impact of spending efficiency of a marketing strategy.

Business with a strong market orientation has a commitment to understanding customers and competitors and working as a team in building value-added customer solutions. These market-focused businesses with distinctly different behaviours, systems and measurements go beyond traditional internal performance metrics. Businesses with a strong market orientation achieve higher levels of customer retention and have to be profitable (Best, 2004).

Managers need to measure the true performance of their companies in order to be able to formulate sound, competing strategies for survival and growth.

It is argued that (Best, 2004), financial (internal) measures performance, although currently used by a majority of companies are not sufficient to formulate competitive strategies.

A few, or more complete form of situational performance analysis comprising both financial (internal) and marketing performances (external) is increasing being used and supported by leading academics such as Kotler (2004).

1.3 Purpose and Project Questions

This study aimed to explore, describe and test both the financial (internal) and market-based (external) forms of company performance on selected company case to emphasise on the importance of marketing and its contribution to competitiveness. In fulfilling its purpose, this study tried to answer the following questions throughout its desk and field investigations.

- What is wrong with the traditional financial performance measures?
- What are they short on?
- What do they measure?
- What will be result if the external analysis is missing?

Traditional financial performance measures are excellent measures of internal financial performance, but they do not provide an external and market based view of performance.

If the external analysis is missing then organisation will never know its market performance, and also these external analysis are an important step in becoming a market-based business.

In this situation the financial analysis is not enough to measure the performance and there are some other areas that the manger believes that needs to be improved in order to measure the performance more accurately. As a result both financial (internal) analysis and market-based (external) analysis should be carried out together in order to measure the performance of the organisation more effectively.

1.4 Brief Literature Review

1.4.1 Market Based Performance

Sales revenue, net profits, return on sales, assets as a percentage of sales, and return on assets are all excellent measures of internal financial performance. These measures however do not provide external and market based view of performance. The external benchmarks are market growth, competitive prices, relative product and service quality and satisfying and retaining customers (Best, 2004).

Best (2004), indicates that the difference in performance is due largely to a lack of market -based performance metrics and an over reliance on traditional financial

measures as a guide to strategic thinking and performance evaluation.

Gale (1992) argued that, to complement a business's internal financial performance a Business needs a parallel set of external metrics to track the market-based performance.

The foundation of market based management is a strong commitment to market based performance metrics, market level profitability, and the management of marketing expenses to achieve a high level of productivity. Businesses that are market-based are able to create a business culture in which managers possess strong individual market orientations and work across functions to achieve marketing excellence (Best, 2004).

1.4.2 Market-Based Performance Metrics

Market-based performance metrics are the external measures of market based performance. According to Kaplan and Norton (1991), in order to be successful, a business needs both internal and external performance metrics. Internal measures are critical for tracking unit costs, expenses, assets utilisation, employee and capital productivity, and overall measures of profitability. Market-based performance metrics is equally important in providing an external view of the businesses market based performance.

Table 1.1 Internal and External Measures of Performance.

INTERNAL PERFORMANCE METRICS	EXTERNAL PERFORMANCE METRICS
Unit Cost	Market Share
Manufacturing Overhead	Relative Share
Marketing Expenses	Customer Satisfaction
R&D Expense	Market Coverage
Sales/ Employee	Product Awareness
Days Accounts Receivable	Relative Quantity
Return on Sales	Relative Price
Asset Turnover	Customer Preferences
ROI and ROE	Relative New Product Sales
Inventory Turnover	Response Time to Problems

Source: "Market Based Management", 2nd edition, chp 2, pp 30.

1.4.2.1 In-Process and End-Result Performance Metrics

The primary purpose of market metrics is to maintain an ongoing measure of market performance. However, not all market metrics are leading indicators of business performance (Best, 2004). There is in-process market metrics and end-result market metrics (Crossman, 1994).

Product awareness, intention to purchase, product trial, and customer satisfaction, and dissatisfaction, along with customer perceptions of relative product quality, service quality, and customer value all serve as in-process metrics (Best, 2004).
End-result market metrics include market share, customer retention, revenue per customer. End result metrics is likely to occur at the end of a financial period (Best, 2004).

1.4.3 Marketing Profitability

Market based performance metrics are essential to understanding external performance, it is important that a business managed to grow and to protect profits and shareholders value (Best, 2004).

To develop and implement marketing strategies that are going to increase customer satisfaction and grow profits, an organisation needs to be able to measure the profitability of a marketing decision (Best, 2004). This means understanding the revenues that result from serving a target market customers associated with serving that market. To grow profits an organisation needs to grow net marketing contribution (Best, 2004).

A full literature review is discussed in section 2, page 9.

1.5 Methodology

The methodology and the design of the study are discussed and presented in detail in section 3, page 27.

1.6 Sections of the Study

Section 2: In section 2 the **literature review** of the market-based performance had been conducted.

Section 3: Section 3 is the **methodology section**, and in this section all the steps involved in evaluating the internal and external analysis had been explained in detail.

Section 4: This section is **contextual factors** section and it provides a detailed information related with the Dell Computer Corporation's historical background, its current position in the market, its competitors, employees, management philosophy, and its financials.

Section 5: this section is the **finding** section and all the needed calculations related with the Dell Computer Corporation had been carried out. These calculations had been done in two different perspective and they are explained in detail.

Section 6: This section is **conclusions and recommendations** section and this section includes the conclusions that had came out from the findings and the recommendation for the future study is mentioned in this section.

1.7 Conclusion

This section has introduced the subject of the study, the problem statement, and briefed on the contents of the following sections.

SECTION 2 LITERATURE REVIEW

2.1 Introduction

This section discusses the literature on the measurements of both financial and marketing performance of companies. It introduces both performance measures.

2.2 Market-Based Performance

2.2.1 Market versus Financial Performance

Sales revenues, net profits, return on sales, assets as a percentage of sales, and return on assets are all excellent measures of internal performance. These measures, however, do not provide an external or market based view of performance. The external benchmarks are market growth, competitive prices, relative product and service quality and satisfying and retaining customers (Best, 2004).

To complement a business's internal financial performance a business needs a parallel set of external metrics to track market-based performance (Gale, 1992). Although these measures may not have the additive elegance of financial accounting, individually and collectively they provide a different and more strategic view of business performance (Best, 2004).

Best (2004), indicates that decline in quality, along with decline in relative new product sales, made it more difficult to hold customers as customer satisfaction declined and percentage of dissatisfied customers grew. The net results were eroding

market-based performance high levels of customer turnover, and a steady decline in market share.

2.2.2 Market – Based Performance

The market-based management has the potential to dramatically improve profits. The foundation of market-based performance is built around a commitment to market performance metrics, marketing profitability and a strong market orientation (Best, 2004).

- Market Performance Metrics: External measures of market performance.
- Marketing Profitability: Profitability measure of a marketing strategy.
- Market Orientation: Behaviours and systems used to achieve market orientation.

Market Based Performance Metrics is a powerful complement to conventional measures of financial performance. A metric to index Marketing Profitability would allow marketing managers to understands, track, and manage the profit impact of a marketing strategy (Chan, Hess, Wilcox, and Zhang, 1999). Market orientation provides a company-wide infrastructure that is sensitive to customer needs and competitors' actions, and committed to working as a team to develop and implement market driven strategies. Each of these elements of market-based performance is critical in taking a business to a higher level of marketing effectiveness and profitability (Best, 2004).

2.2.3 Market Based Performance Metrics

Best (2004), argues that most business systems are set up to track revenues, costs, factory overhead, accounts receivable, operating expenses and profits. Yet a business's customers are its most important assets and the only significant source of positive cash flow. Giving up customers in a period of growth simply means that business has to work harder and spend more in order to replace each lost customer.

2.2.3.1 Internal versus External Performance

Kaplan and Norton (1992) states that in order to be successful a business needs both internal and external performance metrics.

Internal measures are critical for tracking unit costs, expenses, assets, utilisation, employee and capital productivity, and overall measures of profitability. Market-based performance metrics are equally important for providing an external view of the business's market-based performance (Best, 2004).

Best (2004), argues that the CPA firm have done an excellent job in developing procedures for internal measures of a business's performance, the rest frontier for either CPA firms or market research firms will be development of standardised procedures for external measures of business's market-based performance. With both sets of performance metrics, managers as well as financial analysts and shareholders will be in a much better position to evaluate a business's marketing effectiveness and business performance.

Table 2.1: Internal and External Measures of Performance Metrics

INTERNAL PERFORMANCE METRICS	EXTERNALPERFORMANCE METRICS
Unit Cost	Market Share
Manufacturing overhead	Relative Share
Marketing Expenses	Customer Satisfaction
R&D Expenses	Market Coverage
Sales/Employee	Product Awareness
Inventory Turnover	Relative Quality
Days Accounts Receivable	Relative Prices
Return On Sales	Customer Preferences
Asset Turnover	Relative New Product Sales
ROI and ROE	Response Time Problems

Source: "Market Based Management", 2nd edition, chp 2, pp30.

2.2.3.2 In-Process and End-Result Performance Metrics

Cressman (1994) states that the primary purpose of market metrics is to maintain an ongoing measure of market performance. And, because many market metrics precede financial performance, they are critical to strategy implementation and financial performance. However, not all market metrics are leading indicators of business performance. There are in-process market metrics and end-result market metrics. Both are important, because they are also leading indicators of financial performance. End-result metrics correspond more closely to financial performance.

Best (2004), states that product awareness, intention to purchase, product trial, and customer satisfaction and dissatisfaction, along with perceptions of relative product quality, service quality and service value, all serve as in-process market metrics. Changes in each, positive or negative, generally precede actual changes in customer purchase behaviour. As a result, these in-measures of customer thinking and attitude are important leading indicators of future purchase behaviour and, hence, of revenue and profit performance. Without in-process market metrics, problems may go undetected and unresolved until after declines in financial performance.

End-result market metrics includes market share, customer retention, revenue per customer. End-result market metrics is likely to occur at the end of a financial performance period. However, each provides a different set of performance diagnostics and insight. If end-result performance metrics show that the business is losing market share in a growing market, and poor customer retention is masked by new customer growth, there should be a cause for concern. Without end-result market metrics, the business has only an internal perspective of end result performance (Best, 2004).

Table 2.2 Internal vs External and In-Process vs End Process Performance Metrics

Measurement Perspective	Time of Measurement	
	In-Process Metrics	**End-Result Metrics**
Internal (in company)	• Product Defects • Late deliveries • Billing Errors • Accounts receivable • Inventory turnover	• Net/Profit Earnings • Return on Sales • Margin Per Unit • Return on assets • Asset Turnover
External (in market)	• Customer Satisfaction • Relative Product Quality • Relative Service Quality • Intentions to Purchase • Product Awareness	• Market Share • Customer retention • Relative New Product Sales • Revenue Per Customer • Market Growth Rate

Source: "Market Based Management", 2nd edition, chp 2, pp 34.

2.3 Marketing Profitability

Best (2004), argues that although market-based performance metrics are essential to understanding external performance, it is important that a business be managed to grow and protect profits and shareholders value. A measure of marketing profitability help us to gauge the degree to which a marketing strategy contributes to a business's profits.

To create a measure of marketing profitability, there is a need to examine more closely the elements of profitability and determine which come under the influence of the marketing function. To do this, there is a need to systematically break down the elements of profitability and marketing strategy to better understand how they interact (Shank and Govindarajan, 1989).

Best (2004), states that the best method is to start with a very broad definition of net profit and break down the profit equation into a definition that encompasses a market-level measure of profitability.

The business's net profit is simply revenues minus expenses.

Net Profits (before taxes) = Revenues – Expenses

Profits = Sales Revenues –COGS – Operating Expenses

In order to understand marketing profitability and how it contributes to a business's profits we need to isolate marketing and sales expenses.

Table 2.3 Cost of the Goods Sold, Marketing Expenses and Operating Expenses	
Cost of Goods Sold	The total cost of producing a product that varies with volume sold.
Variable Cost	Includes purchase materials, direct labour, packaging, transportation costs and any other costs associated with making and shipping a product.
Manufacturing Overhead	This is an allocated cost based on use of the fixed manufacturing plant, equipment and other fixed expenses needed to run the production operation.
Marketing and Sales Expenses*	A direct expense that varies with marketing strategy.
Marketing Management	Expenses associated with marketing management and resources that needed to support this function.
Sales, Service Support	Expenses associated with sales force, customer service and technical and administrative support service.
Advertising and Promotion	All expenses associated with the marketing communications budget.
Operating Expenses	Indirect expenses that do not vary with marketing strategy.
Research and Development	Expenses fore developing new products and/or improving old product.
Corporate Overhead	Overhead expenses for corporate staff, legal council, professional services, corporate advertising, and the salaries of senior management and their staff.

Marketing and Sales Expense are traditionally as a part of Sales, General & Administrative (SG&A) in most annual reports.

Source: "Market Based-Management", 2nd edition, chp 2, and pp36.

In order to make effective market-based decisions, it is needed to separate marketing and sales expenses from overall fixed operating expenses (Shank and Govindarajan, 1988).

Profits = Sales Revenue –C.O.G.S--Marketing & Sales – Other Operating Expenses Expenses

Best (2004), indicates that Net Marketing Contribution is a measure of Marketing Profitability. Net Marketing Contribution captures the actual profitability of any product line without including any allocated overhead not directly related with the product line itself.

2.3.1 Net Marketing Contribution

With this measure of marketing profits we can now better understand how strategies contribute to the overall profits of a business.

Profits =[All Product Line Net Marketing Contribution]-Operating Expense

If we combine revenues, variable expenses and marketing expenses, we can create a measure of marketing profitability. However, to manage profit at a market level, we need to rewrite the net profit equation based on how we break down revenues and

variable and fixed expenses as they related to the profit impact of marketing strategies. Because the volume portion of revenues and that of variable expenses are the same, we can express net profit in marketing terms in the following way (Best, 2004).

Net Profit (before taxes) = Net Marketing Contribution –Operating Expenses

From this perspective, a marketing strategy produces a net marketing contribution (Morris and Morris, 1990). This net marketing contribution has to cover the business's operating expenses and more in order for the business to make a profit.

Best (2004), states that using net marketing contribution as a measure of profitability, the marketing manager can more readily evaluate the profit impact of marketing strategy. Each product or market should be managed to produce a positive net marketing contribution. In this way, marketing decisions can be evaluated with respect not only to revenue and share gains but also how they will affect profits by the level of net marketing contribution they produce.

2.3.2 Net Marketing Contribution and Business Unit Profitability

When a business has several product lines, it produces a several sources of net marketing contribution. The sum of the net marketing contributions of all these product lines is the only source of cash flow produced by the business; everything else is expense. Eliminating any of the product without commensurate reduction in operating expenses would result in reduction in net profits (Best, 2004).

2.4 Market-Based Marketing Profitability

Best (2004), argues that accounting systems are generally built around producing something. Revenues and costs are directly associated with the production of something, whether it be a product or a service. Costs that are not directly related to production are allocated to product or services using some agreed-upon accounting rules that have nothing to do with satisfying customers or making money. To develop marketing strategies that satisfy customers and grow profits, we need to extend the accounting unit of analysis to better assist the marketing function in managing marketing profitability. To accomplish this, we need an alternative way to track a business's revenues, variable costs, fixed expenses, and net profits.

It is convenient to report performance by product, but there are several reasons we should also track performance by markets and customers. Regardless of the technical or psychological appeal of a business's product or service. There are many products or services business may produce, but there are only a finite number of actual and potential customers in any given market. The objective of a marketing strategy should be to attract, satisfy, and retain target customers in a way that grows the profits of the business.

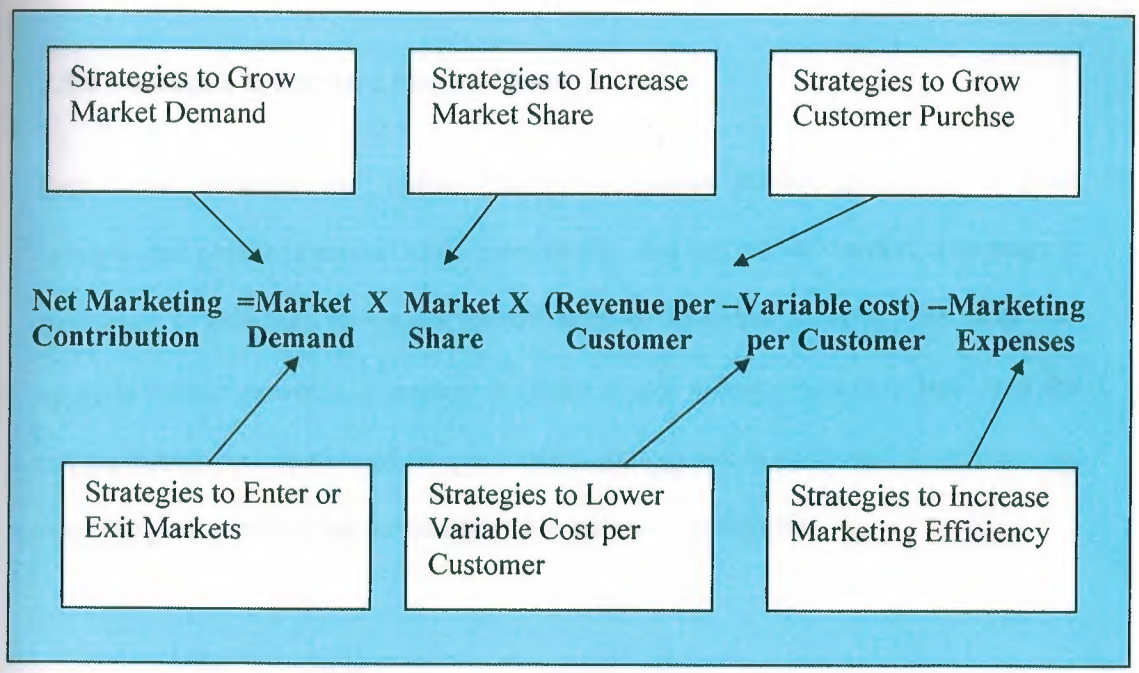
Using customers and market segments they belong to as the accounting units, we can create a more insightful understanding of market-based profitability and ways to grow it (Best, 2004). Market-Based accounting helps us to understand customer demand, customer share, customer volume, revenue per customer and variable cost per customer (Best, 2004).

2.5 Market-Based Strategies and Profitable Growth

Recognising the product or customer as a unit of analysis, we can evaluate different aspects of net marketing contribution in order to gain a better insight into the development of marketing strategies designed to grow profitability (Christopler, 1977).

The net marketing contribution of a proposed strategy must exceed the current net marketing contribution in order to grow the net profits of the business. In light of this fact, there are a limited number of fundamental marketing strategies that a business can consider in order to grow net marketing contribution.

Fig 2.1 Fundamental Market-Based Strategies and Profitable Growth



Source:"Market-Based Management". 2nd edition, chp 2, pp 42.

2.5.1 Strategies to Grow Market Demand

In many markets, a large part of the marketing challenge is to bring more customers into the market. The good portion of profitable growth comes from new customers. Thus, marketing strategies to attract more customers and grow market demand offer one way to grow net profits of a business. If a business is able to hold or grow share while attracting new customers to the market, there is a potential to grow profits. Profits will grow, however, only when the net marketing contribution produced by proposed marketing strategy exceeds the current net marketing contribution.

In some instances a business may actually take lower net marketing contributions in the short-run in order to build demand and future net marketing contributions. However, the discounted cash flow from the long-term strategy has to exceed that of the current strategy in order to for this approach to be viable (Best, 2004).

2.5.2 Strategies to Increase Market Share

Best (2004) indicates that, perhaps the most common marketing strategy to grow revenue and profits is market share penetration. For any served market, a strategy is developed to grow the business's market share of its served market. The same rule apply; a market penetration strategy is likely to cost money, margin or both, and the net marketing contribution of the penetration strategy needs to exceed the current net marketing contribution for the business's to improve profitability.

2.5.3 Strategies to Increase Revenue per Customer

In mature market with a strong share position, a business may not find it feasible or profitable to grow market demand or market share. However, the business's customers still remain its best strategic asset, and an examination of customer needs might reveal new products and services to better serve those needs and grow revenues. To evaluate the overall profit impact of such a marketing strategy, a business would have to project what higher prices could be attained and what increases in the average cost per unit would be required (Best, 2004).

Also to be considered are potential additional marketing expenses, such as additional advertising dollars that would be necessary to make existing customers aware of product or service improvements. Thus, it is important to examine overall aspects of the strategy to ensure that a strategy to increase price per unit leads to an increase in net marketing contribution (Best, 2004).

2.5.4 Strategies to Lower Variable Costs

Another way to grow net profits is by lowering the variable cost per unit. For example, perhaps the transportation costs and sales commissions could be lowered with a new distribution strategy for a given market or market segment. This strategy would lower variable expenses per unit and increase margin per unit, but the business has to be concerned about the level of customer satisfaction that will be delivered by this alternative distribution system. If customer satisfaction lessens, so will customer retention. And, in the long run, net profits will erode even though the business has

achieved a variable cost and higher margin per unit. Thus, a successful marketing strategy must hold or increase customer satisfaction while growing net profits through increases in net marketing contribution (Best, 2004).

2.5.5 Strategies to Increase Market Efficiency

Another way to improve the profitability of a marketing strategy is to lower fixed marketing expenses: that is, to be more efficient in the use of marketing expenses to achieve a particular performance objective. The more focused a business is with respect to target customers, the fewer marketing dollars is has to be expend in order ro achieve a desired marketing objective. Likewise, alternative forms of distribution affect the fixed marketing expenses needed.

2.6 Marketing Productivity

Recognising net marketing contribution as a measure of marketing profitability, a manager can readily evaluate the profit impact of marketing strategies. In addition, we can evaluate the efficiency of marketing budget used to produce a given level of marketing profitability (net marketing contribution) by creating the following measure of marketing productivity.

$$\textbf{Market Productivity} = \frac{\textbf{Net Marketing Contribution}}{\textbf{Marketing Budget}}$$

The ratio of net marketing contribution to marketing budget (marketing and sales expenses) provides a measure of how efficient a given marketing budget is in producing marketing profits (Best, 2004).

Market-Based performance metrics helps managers to evaluate the relative efficiency with which they are growing net marketing contribution. It may be that two marketing strategies yield an equivalent net marketing contribution, but one is more efficient because it has marketing productivity. One strategy can produce the same level of marketing profitability (NMC) but for few dollars of marketing budget. This is an advantage of any business, since these extra dollars can be used for other purposes.

Another benefit of this marketing metric is that it can be used in comparison with other companies or benchmark business (Best, 2004).

2.7 Market Orientation

Businesses with strong market orientation have different behaviours, systems and measurements (Best, 2004). Their commitment to a market orientation leads them to use market metrics in an effort to achieve desired levels of profit performance (Narver and Slater, 1990). Underlying a strong market orientation there are three district areas of commitment-customer orientation, competitor orientation, and working as an integrated team. Each of these areas of market orientation leads to behaviours, systems and measurements that differentiate an externally focused product business (Levitt, 1968). Each of these core areas of market-orientation is focused along with

measures that have been developed for assessing a business's level of commitment to each area of market-orientation (Lukes and Ferrel, 1997).

Market Orientation ⟶ **Market Metrics** ⟶ **Profit Metrics**
(Behaviours) **(Measurements)** **(Performance)**

2.7.1 Customer Orientation

A customer oriented company focuses more on customer developments in designing its strategies. Clearly, the customer-oriented company is in a better position to identify new opportunities and set long-run strategies that make sense. By watching customer needs evolve, it can decide what customer groups and what emerging needs are the most important to serve, then concentrate its resources on delivering superior value to target customers (Kotler, 2004).

2.7.2 Competitor Orientation

Competitor orientation is difficult for most companies- even those with strong customer orientation it is simply more difficult to obtain more competitor intelligence. Often in situations where good competition intelligence is available either it is not used, it is discredited, or even distorted (Best, 2004). Without competitor orientation it is difficult to develop and implement successful marketing strategies, even when a business has a good understanding of customer needs. To be successful, a business needs to understand both customers and competitors (Day, Lehmann and Tocz, 1994).

2.7.3 Team Approach

David Packard once said, "marketing is too more important to leave to the marketers". He did not mean that those in marketing are incompetent. What was intended was that all aspects of the organisation need to be involved in understanding customers and competitors' positions, and working across as a team to build superior customer solutions (Best, 2004):

A business with strong team approach will re-engineer its organisation to better facilitate development and delivery of market-based solutions (Webstyer, 1993).

An overall average of the average scores for customer orientation, competitor orientation, and team approach provides a measure of a business's market orientation. Using this measure of market orientation, businesses with higher overall average scores have been shown to be more profitable than business with lower overall average scores (Best, 2004).

2.8 Conclusion

This section has discussed the literature on the measurement of both financial and marketing performance of companies and introduced both performance measurements.

SECTION 3: METHODOLOGY

3.1 Introduction

This section explains the methods used for the purpose of this study. It outlines the steps used in measuring the performance of the case study, Dell Computer Corporation. The intended performance to be measured was both internal and external which is explained as the financial and the marketing based performance measure of the company.

3.2 Theoretical Information

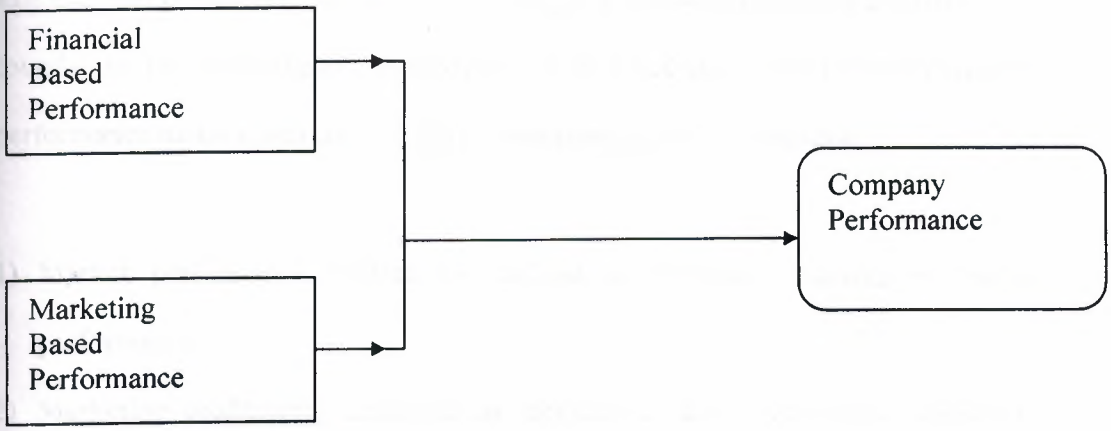
A literature review was carried out for;

a) Identifying the variables and methods involved in measuring the financial performance of the company.

b) Identifying the variables and the methods involved in measuring the marketing performance of a company.

A framework (model) was constructed based on the literature survey to form the steps to be observed and followed for reaching the findings of this study. The theoretical model constructed is illustrated and discussed as below.

Figure 3.1 Theoretical Framework for Measuring Company's – Internal and External's performance



Company performance levels depend on the internal and external performances of a company. Company performance is defined as the degree to which a company, investment, and financial market is profitable.

The internal performance of a company is measured by financial statement analysis and financial statement analysis is measuring the company's performance by using the financial statements prepared by the company such as balance sheet, income statement and statement of cash flow. Financial statement analysis is conducted under four different parts (Meigs, Williams, Haka and Bettner, 1999).

1. Dollar and Percentage Changes,
2. Trend Percentages (Horizontal Analysis),
3. Component Percentages (Vertical Analysis),
4. Ratios.

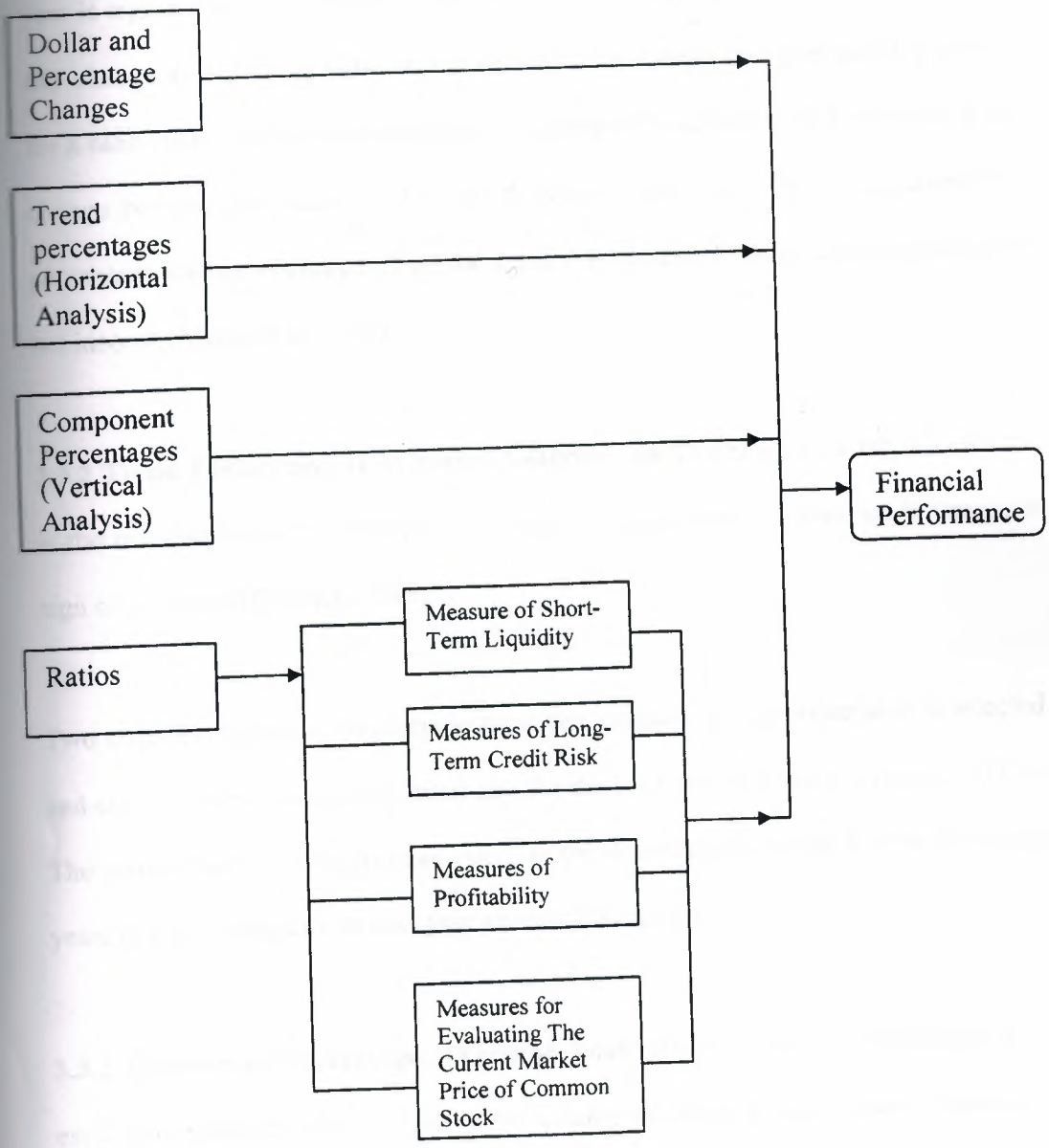
Financial statement analysis provide information for external users primarily investors and creditors to support investment, credit, and other decisions (Meigs et al, 1999).

The external performance is measured by the market-based performance (MBP). The foundation of market-based performance is built around commitment to market performance metrics, market profitability and strong market orientation.

1) Market performance metrics are defined as external measures of market performance,
2) Marketing profitability measures are defined as the measures of marketing strategy, and
3) Market orientation is defined as behaviours and systems used to achieve market orientation.

Both financial based performance measuring and market-based performance measuring models are defined below;

Figure 3.2 Theoretical Framework for Measuring Company's Financial (Internal) Framework



The following definitions, concepts, and formulate are included in the above framework and are employed in reading the findings of this study.

3.3 Financial Based Performance Measuring Model

3.3.1 Dollar and Percentage Changes; dollar amount of any change from the year to year is significant, and expressing the change adds perspective. The dollar amount of any change is difference between the amount for a comparison year and the amount for a base year. The percentage change is computed by dividing the amount of dollar change between the years by the amount for the base year. The dollar amount or percentage change is computed on the income statement items such as net sales and net income (Meigs et al, 1999).

3.3.2 Trend Percentages (Horizontal Analysis); the first thing an analyst looks for is the revenue (sales) over number of years. A rising trend of revenue is usually a sign of expansion (Mosich, 1988).

Two steps are necessary to compute trend percentages. First, a base year is selected and each item in the financial statements for the base year is given a weight of 100%. The second step is to express each item in the financial statements for the following years as a percentage of its base year amount (Meigs et al, 1999).

3.3.3 Component Percentages (Vertical Analysis); indicates the relative size of each item included in total. This shows quickly the relative importance of each type of asset as well as the relative amount of financing obtained from current creditors, long term creditors and stockholders. By computing component percentages for several successive balance sheets, it can be seen which items are increasing in importance and which are becoming less significant.

Another application of component percentages is to express all items in an income statement as a percentage of net sales (Meigs et al, 1999).

3.3.4 Ratio Analysis; is a simple mathematical expression of relationship of one item to another. Every percentage may be viewed as ratio.

Ratios are important in understanding financial statements because they permit us to compare information from one financial statement to another financial statement. We might compare net income (taken form income statement) with total assets (taken from balance sheet) to see how effectively management is using available resources to earn profit.

With the help of the ratios, financial analysts constantly search for some standard comparison against which to judge whether the relationship is favourable or unfavourable (Meigs et al, 1999).

Ratios can be observed under four different conditions.

a) **Measures of Short Term Liquidity;** refers to a company's ability to meet its continuing obligations as they arise.

Current Ratio: it is the most likely used measure of short-term debt paying ability (Meigs et al, 1999). Current ratio is computed as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The higher the amount ratio, the more liquid the company appears to be. Some bankers and other short-term creditors have believed that a company should have a current ratio 2 to 1 or higher to qualify as a good credit risk.

Quick Ratio: it is also known as a acid test ratio and is more rigorous test of short-run solvency than current ratio because numerator eliminates inventory, considered the least liquid current asset and most likely source of losses (Fraser and Ormiston, 2001). Quick ratio is calculated as:

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Working Capital: it is a measurement often used to express the relationship between current assets and current liabilities. Working capital is excess of current assets over current liabilities. Working capital measures company's potential excess sources of cash over its upcoming uses of cash. Working capital is computer as follows;

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Receivables Turnover Rate: it indicates how quickly a company converts its accounts receivables into cash and it is computed as follows;

$$\text{Receivables Turnover Rate} = \frac{\text{Net Sales}}{\text{Average A/R}}$$

Days to Collect Average Account Receivables: it is the average number of days required to convert receivables in cash.

$$\text{Days to Collect Average A/R} = \frac{365 \text{ Days}}{\text{Receivables Turnover Rate}}$$

The average collection period helps gauge the liquidity of A/R, the ability of the firm to collect from customers. It may also provide information about a company's credit policies (Fraser and Orminston, 2001).

Inventory Turnover Rate: indicates how many times during the year the company sells the quantity of goods equal to its inventory (Meigs et al, 1999). Inventory turnover rate is computed as follows;

$$\text{Inventory Turnover Rate} = \frac{\text{Cost of the Goods Sold}}{\text{Average Inventory}}$$

Days to Sell Average Inventory: it indicates how quickly the inventory sells and is computed as follows;

$$\text{Days to Sell Average Inventory} = \frac{365 \text{ Days}}{\text{Average Inventory}}$$

Operating Cycle: the period of time required for a merchandising company to convert its inventory into cash is called the operating cycle (Meigs et al, 1999).

Operating Cycle = Days to Sell Inventory + Days to Collect Receivables

It indicates in days how quickly cash invested in inventory converts back into cash.

b) **Measures of Long-Term Credit Risk**

Long-term solvency ratios measure the ability of the company to survive over a long period of time. Long-term creditors and stockholders are interested in a company's long-term solvency, particularly its ability to pay interest as it comes due and repay the face value of the debt to maturity (Meigs et al, 1999).

Debt Ratio: it is the basic measure of safety of creditor's claims, which states total liabilities as a percentage of total assets. It measures the creditor's long-term risk. The smaller the portion of total assets financed by the creditors, the smaller the risk that business may become unable to pay its debts. From the creditors point of view lower the debt ratio, the safer their position (Meigs et al, 1999). Debt ratio is computed as follows;

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

c) **Measures of Profitability**

Measures of profitability are the are the interest to equity investors and management, and are drawn primarily from the income statement (Meigs et al, 1999).

Profitability ratios measure the success of the firm in earning a return on sales or on investment. Since the profit is an ultimate objective of the firm, poor performance indicates a basic failure that if not corrected would probably result in firm's going out of business (Meigs et al, 1999).

Gross Profit Rate: it is the gross profit expressed as a percentage of net sales. It is a measure of the profitability of the company's products.

$$\text{Gross Profit Rate} = \frac{\text{Gross Profit}}{\text{Net Sales}}$$

Operating Expense Ratio: a measurement of management's ability to control its expenses (Meigs et al, 1999). It is computed as follows.

$$\text{Operating Expense Ratio} = \frac{\text{Operating Expenses}}{\text{Net Sales}}$$

Return on Equity: it is the rate of return earned on stockholder's equity in the company (Meigs et al, 1999).

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{AverageTotal Equity}}$$

Return on Assets: it is a measure of productivity of assets, regardless how the assets financed (Meigs et al, 1999).

$$\text{Return on Assets} = \frac{\text{Operating Income}}{\text{Average Total Assets}}$$

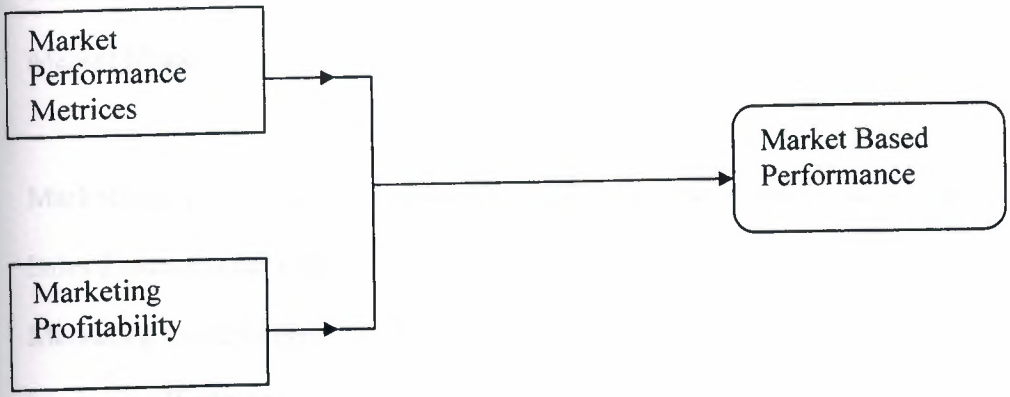
d) Measures of Evaluating the Current Market Price of Common Stock

Book Value Per Share: the recorded value of net assets underlying each share of common stock (Meigs et al, 1999).

$$\text{Book Value Per Share} = \frac{\text{Common Stockholder's Equity}}{\text{Shares of Common Stock Outstanding}}$$

3.4 Market-Based Performance Measuring Model

Figure 3.3



3.4.1 Market-Based Performance Metrics

Market-based performance metrics is a powerful component to conventional measures of financial performance. Important for providing external view of business's market-based performance.

External performance metrics includes measuring market share, relative share, customer satisfaction, market coverage, product awareness, relative quality, relative price, customer preferences, relative product sales and response time problems.

Table 3.1 Market Performance Matrix

Performance	Base Year	1	2	3	4	5
Market Growth (dollars)	--------	----	----	---	--	--
Sales Growth	--------	----	----	---	--	--
Market Share	--------	----	----	---	--	--
Marketing Contribution	--------	----	----	---	--	--
Sales Producers per Unit						
Marketing Contribution	--------	----	----	---	----	--
Marketing Profitability	--------	----	----	---	--	--

Table 3.2 PC Manufacturer Repetition Index

	Overall Score	Technology Leadership	Value	Customer Service	Quality / Reliability	Product Design
First	-------	----------	-----	---------	----------	-------
Second	-------	----------	-----	---------	----------	-------
Third	-------	----------	-----	---------	----------	-------
Fourth	-------	----------	-----	---------	----------	-------
Fifth	-------	----------	-----	---------	----------	-------

The PC Manufacturer Repetition Index focused on the top 5 PC manufacturers and perspective's and impressions held by news mews media about the companies (www.lacp.com).

More than 5,000 members of the press who cover the technology and personal computer industry were invited to participate in the study, and more than 100 completed the 70-question on-line (www.lacp.com).

The aim of the study is to focus on two main branches;

A) **Brand Perception:** How the respondents' viewed the various qualities of the companies and products being evaluated.

B) **PR Team Perception:** How the respondents' viewed various qualities of the companies' PR teams and the quality of services they provide to the news media.

Qualities from brand perception we used to compile the PC manufacturer Reputation Index and enveloped the following brand qualities:

- Technological Leadership
- Value Delivered Clients
- Customer Service
- Product Quality and Reliability
- Product Design and Ergonomics.

Qualities from Part B of the study were not used since various decisions and actions are required at times by PR teams that are in the best interest of the organisation and its stakeholders but not necessarily in line with news media's expectations (www.lacp.com).

3.4.2 Marketing Profitability

Measuring marketing profitability help us gauge the degree to which marketing strategy contributes to a business's profits. To measure marketing profitability, it is needed to examine more closely the elements of profitability and which come under the influence of marketing function. To do this, we need to systematically break down the elements of profitability and marketing strategy to better understand how they interact (Shank and Govindarajan, 1989).

First, break down the net profit into a definition that encompasses a market-level a measure of profitability.

Net Profits (before taxes) = Sales Revenue – Cost of Goods Sold – Operating Expenses

To understand marketing profitability and how it contributes to a business profits we need to isolate marketing and sales expense.

Profits = Sales Revenue – Cost of Goods Sold - Marketing and Sales Expenses – Operating Expenses

Net marketing contribution (NMC) is a measure of marketing profitability. Net Marketing Contribution separate the marketing and sales expense from overall fixed operating expense, capturing the actual profitability of a product without including any allocated overhead not directly related product line itself.

Net Marketing Contribution = Sales Revenue – Cost of Goods Sold – Marketing and Sales Expenses

Net Profit (before tax) = Net Marketing Contribution – Operating Expenses

$$\text{Net Marketing Contribution} = \left[\text{Market Demand} \times \text{Market Share} \times (\text{Price per Unit} - \text{Variable Cost per Unit}) \right] - \text{Marketing Expenses}$$

3.5 Company Information

Information on Dell Computer Corporation (the selected company case) was searched and obtained from Internet sources and other written literature. The aim was to collect information in order to report on-

a) the background of the company,

b) industry analysis,

c) management discussion analysis,

d) company business strategy,

e) competition,

f) research and development,

g) products and product strategy,

h) growth strategies,

i) financial analysis,

- financial performance,
- marketing performance.

3.6 Conclusion

This section discussed the ways how the financial (internal) and market-based (external) measurements should be computed in practice.

Section 4: CONTEXTUAL FACTORS

4.1 Introduction

This section gives very detailed information about the Dell Computer Corporation's historical background, computer industry, current financial situation, its employees, products, and many more items related with the company's internal and external factors.

4.2 Computer Industry

4.2.1 Description of industry

The computer hardware industry is a maturing industry in rapid and constant change. Growth in computer hardware spending has been driven largely by business purchase. The computer hardware industry can be divided into 3 segments:

1. Systems and servers(including mainframes and supercomputers),
2. Personal computers (PC's),
3. Workstations.

4.2.2 Financial Analysis

The growth of the computer hardware industry dramatically increased revenues to companies in the industry. Profit margins are much slimmer in the United States due to fierce competition and the price wars waged for sake of market share. Nonetheless, computer hardware companies are expanding internationally where profit margins are

significantly higher. Due to very fast market cycle, inventory turnover must be extremely high. Any company with lower inventory turnover than its competitors will quickly begin experiencing balance sheet problems.

4.2.3 Competitive Structure

The top 10 PC suppliers control 65 percent of the market. Competition is fierce. In fact, the PC market in some ways resembles a commodity market; top vendors target market share over margins. New entrants to the industry have slowed product offerings of existing vendors have widened. "Wintel" is an acronym for the Intel-Microsoft leadership that dominates the PC market. Worldwide, 83 percent of all PCs use in Intel microprocessor. One feature of this market domination, unlike in other monopoly situations, is constant innovations.

4.2.4 Potential/Prospective for Growth

The tremendous increase in the power and flexibility of PC's and the ability to amplify PC strengths by networking in local-area networks (LANs) and wide-area networks (WANs) has made the PC segment the largest. This segment is biggest in both units and dollars.

4.3 General Information about Dell Computer Corporation

Dell Computer Corporation, with annual revenue of $35.4 billion, is a premier provider of computing products and services. As result of its direct business model, Dell is the leading seller of computer systems worldwide and the number one seller in all customer segments in the United States.

Micheal Dell founded Dell in 1984 on a simple concept; by selling computer systems directly to customers, it could best understand customer needs and effectively provide the most effective computing solutions to meet those needs. Dell's climb to market leadership is the result of a relentless focus on delivering the best customer experience by selling computer systems and services directly to customers.

Dell is a Delaware corporation that was incorporated in May 1984, succeeding to business of a predecessor Texas Corporation. Dell is based on Round Rock, Texas and conducts operations worldwide through wholly owned subsidiaries. Dell operates principally in one industry segment.

Dell computer introduced the concept of selling personal computers systems to customers on built-to-order basis, providing direct toll-free support and next day onside services. The corporate philosophy is to "Cut out the middle-person and sell directly to customers." Since its incorporation in 1984, Dell Computer has become one of the largest manufacturers of computer systems in the world.

Dell Computer Corporation sells personal computers directly to the customers, mostly through mail order. Approximately 90 percent of the company's annual revenues are from corporations, governments, and educational institutions. Over 80 percent of the fortune 500 companies are Dell customers.

Many people get their first job during high school, but few are successful in high school, as was Micheal Dell. Dell made $18,000 selling newspapers in one year. One of his techniques was to identify the newspaper purchased most by newlyweds and new families in the area. He then targeted those individuals for newspaper sales. Dell tracked this market segment through the city of marriage licence bureau, list of new home purchases and other sources. The ingenuity and persistence he demonstrated at an early age confirmed his strong entrepreneurial spirit. The foundation of Dell Computer Corporation occurred a few years later.

With room full of inventory, Dell added components and assembled them into clones of IBM computers. To compete with retail segment, Dell offered the IBM clones to customers through mail order. Within months, Dell averaged $50,000 to $80,000 in revenues per month. Dell dropped out the college in 1984 to work full time on the concept of Dell Computers. His explanation for dropping out was "I prefer to compete with IBM."

Dell determined the best way to succeed in selling PCs was to build to suit and to ship directly to the customers. The PC market was changing so rapidly that fast turnaround of each order was paramount. The company would use low-cost direct marketing computer magazines. This would undersell the better known computers

being sold through retail dealers who typically had higher overhead. In its first full year in business, Dell computer achieved sales of $6 million. This was a stunning justification of Dell's savvy read of the market. Dell has since become the top brand name in the direct mail market.

4.3.1 Financial Analysis

Despite the recession of early 1990s and litigation that was eventually lost to Compaq, Dell has managed to recover. Net profits went from $5 million in 1990 to just over $944 million for 1998. Unit volumes increased form 48 to 55 percent for fiscal year 1997. These changes resulted from continued, rapid growth of the company's entire product line. Desktop and workstations make up 78 percent of the company's revenues while the other 22 percent consist of notebooks and servers.

The company has also experienced rapid growth in the international market. Growth in North and South America has been three times faster than the United States market. In Europe, where economic conditions have worsened, Dell has continued to advance on the strength of 36 percent sales growth. Dell has offices in 14 countries and just over 200 employees. This moved Dell to the number two positions in the overseas market with sales more than $2 billion in 1997.

The Asia/Pacific/Japan region has become Dell's major emphasis for growth. With direct operations in 11 countries and distribution alliances serving another 37, Asian sales grew 38 percent in 1997 over fiscal year 1996. With margins and growth higher outside the United States, Dell finished construction Malaysia of a 238,000 square

foot manufacturing and customer-support facility. This facility allows Dell to deliver its products more quickly and less expensively in Asia, not to mention customising products to regional and national tastes. Dell's management projects that the mix of our business over time should be geographically a lot different from what it today.

4.3.2 Risk Analysis

As we move toward the 21st century, the Internet is the new mass medium for advertising. Dell's home page remains the model web page for technology companies. Ads on web cost roughly $9 per user compared to $116 for radio, $340 for broadcast TV, and $586 for newspaper. Increased web-advertising fits into Dell's strategy of being low-cost direct seller of PCs.

Compaq currently re-evaluating their distribution channel. They are considering a merger with Micon Computer or Gateway 200 to enter the direct-sell market. The biggest danger to Dell is that Compaq will overhaul its sales strategy to be more like Dell. Fortunately for Dell, adding a direct distribution channel to their current operations would cause numerous problems for Compaq.

Also, Dell is exposed to a variety of risks, including foreign currency exchange rate fluctuations and changes in the market value of its investments. In the normal course of business, Dell employs established policies and procedures to manage these risks.

4.3.3 Industry and Market Analysis

Growth in the PC sector was up to 20% in 1996. Internet users were 25 million compared to the 150 million users expected by 2000. U.S. sales are 40% of total PC market, up to 17% compared to the prior year. Large number of international areas has not been penetrated. The Western European market has 24% of market, up 13%. Asia/Pacific has 13% of the market, up 23%, while Japan has 12% of the market, up 44 %. Portable computers and servers are growing over 30% per year. If sales for network computers rise, sales for servers will skyrocket.

Balancing resellers and direct sales is very difficult. If Compaq were add to the direct model to their distribution channel, a domino effect may occur because every effort to go direct is greeted with a number of resellers threatening to jump ship. Although Compaq is growing rapidly, direct-seller Dell is growing even faster.

IBM's response to Dell's growth has been a massive marketing and sales effort for their new System Care hardware and services. The goal is to reduce the total costs of ownership for the corporation.

Demand for servers' remains strong, with Compaq positioned as the market share leader for servers that run smaller LAN's. Servers are the fastest growing segments in the computer hardware industry. The main reason is that corporate America is reducing its use of large, expensive mainframes in favour of more flexible hardware. IBM feels the effect of this first-hand. Although IBM saw a 50% growth in

mainframe MIPS (million instructions per second), they were forced to reduce prices dramatically to remain competitive with less expensive servers.

4.3.4 Business Strategy

Dell's business strategy combines its direct customer model with a highly efficient manufacturing and supply chain management organisation and an emphasis on standards-based technologies. These strategy enables Dell to provide customers with superior value; high-quality, relevant technology; customised systems; superior service and support; and products and services that are easy to buy and use. The key tenets of Dell's business strategy are as follows:

- A direct relationship is the most efficient path to customer.
- Customers can purchase custom-built products and custom-tailored services.
- Dell is the low-cost leader.
- Dell provides a single point of accountability for its customers.
- Dell believes that standard-based technologies deliver the best value to customers.

4.3.5 Products

Dell designs, develops, manufactures, markets, services and supports a wide range of computer systems, including enterprise systems (servers, storage, and networking products, and workstations), notebook computer systems, desktop computer systems, and software and peripherals. All market share references included are according to International Data Corporation.

- **Servers.** Dell's standards-based PowerEdge line of servers designed to provide customers affordable performance, reliability and scalability.

- **Storage**. Dell y EMC and Dell's Power Vault lines of storage products offer customers a comprehensive portfolio of cost-effective hardware and software solutions to protect customer data.

- **Networking Products.** Dell's PowerConnect switches are standards-based network switches that connect computers and servers in small-to-medium-sized networks

- **Workstations.** Dell offers the Dell Precision desktop workstation and the Dell Precision mobile workstations. These products are intended for professional users who demand exceptional performance to run sophisticated applications.

- **Notebook Computers.** Dell offers two lines of notebook computer systems. The Latitude line of notebooks is designed to address a wide range of business and organisational needs. The Inspiron line of notebooks is targeted to customers who require high-performance computer systems at aggressive prices. Typical customers are small-medium sized businesses that require optimum performance for their investments.

- **Desktop Computer Systems**. Dell offers two lines of desktop systems. The OptiPlex line of desktop system is designed for corporate and institutional customers who demand high-reliable, stable, manageable and easily serviced

systems within networked environment. The Dimension line of desktop system is designed for small businesses and home users requiring fast technology turns and high-performance computing.

- **Software and Peripheral Products**. Dell offers a multitude of competitive priced software and peripheral products from leading manufacturers. Products offered include software, monitors, printers, and notebook accessories.

4.3.6 Services

By applying a direct model to its services business, Dell seeks to simplify customers' computing experience by offering a full range of flexible, tailored solutions. Dell offers a portfolio of services that help maximise information technology ("IT"), rapidly deploy systems, and educate IT professionals and consumers.

- **Dell managed services**. Dell Managed Services offers a wide range of IT management services. These services allow customers to minimise annual service costs and enhance system performance without sacrificing control of there IT systems.

- **Dell Professional Services**. Dell Professional Services offers services to help businesses optimise technology, enhance productivity, reduce business risk and maximise return on technology investment.

- **Deployment Services**. Dell's Deployment services are designed to rapidly configure and deploy Dell systems and products into IT environment.

- **Technical Support and Warranty Services**. Dell offers a variety of customised services and support programs tailored to meet specific customer requirements.

- **Training and Certification**. Dell offers training and certification programs for business and consumer customers worldwide. Dell's on-line training program features over 1,200 courses for consumer, business and IT professionals.

4.3.7 Financial Services

Dell offers various financing activities, asset management services, and other customer financial services for its business and consumer customers in the U.S. through Dell Financial Services L.P. ("DSF"), a joint venture between Dell and CIT Group, Inc. ("CIT").

4.3.8 Sales and Marketing

Dell sells its products and services directly to its customers through dedicated sales representatives, telephone-based sales and on-line sales through www.dell.com. Dell's direct model provides direct and continuos data regarding customer trends and needs. Based on that information, Dell continually develops and refines products and marketing programs for specific customer segments. This constant feedback, unique

to direct model, allows Dell to rapidly gauge customer satisfaction and introduce new products.

Dell's sales and marketing efforts are organised based on customer needs and characteristics. Dell's customers include large corporations, government agencies, HealthCare, and educational institutions, small-to-medium businesses and consumers. Within each of Dell's geographic regions, Dell has divided its sales and marketing resources among these various customer groups. No single customer accounted for more than 10% of Dell's consolidated net revenue during any of the last three fiscal years.

For large businesses and institutional customers, Dell maintains a field sales force throughout the world. Dedicated account teams, which include field-based system engineers and consultants, form long-term relationship to provide each customer with a single source of assistance and to develop specific marketing programs for these customers. For large, multinational customers, Dell offers several programs designed to provide single points of contact and accountability with global account specialist, special global pricing, and consistent service and support programs across global regions and access to central purchasing facilities. Dell also maintains specific sales and marketing programs targeted at federal, state and local governmental agencies as well as specific HealthCare and educational markets.

Dell markets its products and services to small-to-medium businesses and consumers primarily by advertising on television and the Internet, advertising in a variety of print media, and by mailing a broad range of direct marketing publications, such as

promotional pieces, catalogues and customer newsletters. A majority of the sales to small-to-medium businesses and consumers occur on-line through www.dell.com.

4.3.9 Product Development

Dell's product development efforts are focused on designing and developing standards-based, competitively priced products that incorporate the technologies and features that Dell believes are most desired by its customers. To accomplish this objective, Dell has developed cooperative, working relationships with many of the world's most advanced technology companies. Working with these companies, Dell engineers manage quality, integrate technologies and design and manage system architecture. This cooperate approach allows Dell to determine the best method and timing for delivering new technologies to the market.

4.3.10 Employees

On January 31, 2003, Dell had approximately 39,100 regular employee. Approximately 21,200 of those employees were located in the U.S., and approximately 17,900 were located in other countries. Dell believes that its ability to attract and retain qualified personnel is critical to its success and achievement of its business plan. Dell has never experienced a work stoppage due to labour difficulties and believes that its employee relations are good.

4.3.11 Geographic Areas of Operations

Dell conducts operations worldwide and is managed generally on geographic basis. The three geographic regions are the Americas, Europe and Asia Pacific-Japan regions.

The Americas region is based on Round Rock, Texas, and covers the U.S., Canada, South America and Latin America. The Americas region is further segmented into Business and U.S. Consumer.

The Europe region, which is based in Bracknell, England, covers the European countries and also some countries in the Middle East and Africa.

The Asia Pacific-Japan region covers the Pacific Rim, including Japan, India, China, Australia and New Zealand, and is based in Singapore. In fiscal 2003, approximately 34% of Dell's net revenue were attributable to international sales. Dell has recently established technical and customer support and related operations in India and intends to continue such efforts in other regions throughout the world.

Dell's corporate headquarters are located in Round Rock, Texas. Its manufacturing facilities are located in Austin, Texas; Eldorado do Sul, Brazil; Nashville, Tennessee; Limerick, Ireland; Penang, Malasia; and Xiamen, China.

4.3.12 Factors Affecting Dell's Business Prospects

There are many factors that affect Dell's business and the results of its operations, some of which are beyond Dell's control.

- General economic, business or industry conditions may result in a decrease in net revenue.
- Armed hostilities, terrorism or public health issues could have a material adverse effect on Dell's business.
- Dell's business is extremely competitive and no assurance can be offered that Dell can maintain its competitive advantage.
- A substantial portion of Dell's net revenue is dependent upon international sales, which are subject to risks and uncertainties.
- Dell's overall profitability may not meet expectations if its product, customer and geographic mix is substantially different than anticipated.
- Dell's net revenue may not meet expectations if it is unable to accurately predict the effect of seasonally on its business.
- Infrastructure failures could have a material adverse effect on Dell's business.
- A failure on the part of Dell to effectively manage a product transition will directly affect the demand for Dell's products and the profitability of Dell's operations.
- Disruptions in component availability could unfavourably affect Dell's performance.
- Dell's reliance on suppliers creates risks and uncertainties.

- Dell could experience manufacturing interruptions, delays or inefficiencies if it is unable to timely and reliably procure components from certain single-sourced suppliers.
- Dell's results may be affected if it does not effectively hedge its exposure to fluctuations in foreign currency exchange rates.
- Dell's continued business success may be largely dependent on its ability to obtain licences to intellectual property developed by others on commercially responsible and competitive terms.
- Dell cannot provide any assurance that current environmental laws enacted in the future will not have a material adverse effect on Dell.
- If DFS were unable to provide financing to Dell's customers, Dell would be forced to find alternative sources for financing for its customers or self-finance these activities and, as a result, could experience a decline in its cash flow from operations.

4.4 Conclusion

In this section, information about the Dell Computer Corporation's historical background, computer industry, current financial situation, its employees, products, and many more items related with the company's internal and external factors had been explained in detail.

SECTION 5: FINDINGS

5.1 Introduction

In this section all the financial (internal) and market-based (external) calculation related with the Dell Computer Corporation will be conducted in order the see the company's position in the computer industry and its internal strength.

5.2 Financial Based Performance

5. 2.1 Dollar and Percentage Changes

The dollar amount of any change from the year to the year is the difference between the amount for a comparison year and the amount of base year. These analyses shows the percentage changes for an important item each year. Both net sales and net income are used in order to calculate these changes, and the income statement appears in Appendix 1.

(In $ millions)

	1998	1997	1996	1998 over 1997 $	1998 over 1997 %	1997 over 1996 $	1997 over 1996 %
Net Sales	12,327.0	7,759.0	5,296.00	4,568.00	58.9	2,463.00	46.5
Net Income	944.00	531.00	272.00	413.00	43.7	259	95.2

	2000	1999	1998	**2000 over 1999 $**	**2000 over 1999 %**	**1999 over 1998 $**	**1999 over 1998 %**
Net Sales	25,265.0	18,243.0	12,327.0	7,022.0	38,5	5,916.00	48
Net Income	1666.00	1,460.00	944.00	206	14.1	516	54.7

The net sales has an up and down fluctuations between the years 1996-2000. In years 1997 over 1996 the amount of change in net sales was 46.5% and this amount increased to 58.1% in years 1998 over 1997 and then this amount started to decrease in the following years and finally in year 2000 it came down to its lowest position, 38.5%. When evaluating the net income, again there was an up and down fluctuations and net income between 1997 over 1996 was 95.2% and this amount reduced to 14,1% to its lowest position in year 2000 over 1999.

5. 2.2 Trend Percentages (Horizontal Analysis)

Trend Percentages (Horizontal Analysis) is used to analyse the earning in which covers the several years, and it is useful in analysing the company's performance, not only year by year but also in periods of prosperity and adversity. Cost of Sales (C.O.G.S), Net Sales, and Gross Profit from the income statement of Dell Computer Corporation are used and the income statement of Dell Computer Corporation appears in Appendix 1.

	2000	1999	1998	1997	1996
Net Sales	25,265.00	18,243.00	12,327.00	7,759.00	5,296.00
C.O.G.S.	20,047.00	14,137.00	9,605.00	6,093.00	4,2259.00
Gross Profit	5,218.00	4,106.00	2,722.00	1,666.00	1,067.00

	2000	1999	1998	1997	1996
Net Sales	477	344.5	232.8	146.5	100%
C.O.G.S.	474	334.3	227.1	144.1	100%
Gross Profit	489	384.8	255.1	156.1	100%

Year 1996 was chosen as a base year and was given a 100% value and all calculations had been made with the comparison of the base year. Net income, net sales, and C.O.G.S, all of them had an increasing trend when compared with the base year and at the end of the fifth year, 2000. Net sales had increased by 477%, C.O.G.S increased by 474%, and finally the gross profit had an increase of 489%, which showed that C.O.G.S had increased parallel to net sales and also gross profit had almost the same amount of increase.

5.2.3 Component Percentages (Vertical Analysis)

Component Percentages (Vertical Analysis) indicate the relative size of each item as a percentage of net sales in the income statement. While conducting the calculations of a component percentages Net Sales, C.O.G.S, Operating Expenses, and Net Income will be used. The information, which required carrying on these analyses, had been

provided from Dell Computer Corporation's financial statements, which are included in Appendix 1.

	1997	1996	1997	1996
Net Revenue	7,759	5,296	100%	100%
Cost of Sale	6,093	4,229	(78.5)	(79.8)
Gross Margin	1,666	1,067	21.5	20.2
Operating Expenses:				
SG &A	826	595	(10.6)	(11.2)
R&D	126	95	(1.6)	(1.8)
Total Operating Expenses	952	690	(12.2)	(13)
Operating Income	714	377	9.2	7.1
Net Income	531	272	6.8	5.1

	1998	1997	1998	1997
Net Revenue	12,327	7,759	100%	100%
Cost of Sale	9,605	6,093	(77.9)	(78.5)
Gross Margin	2,722	1,666	22.1	21.5
Operating Expenses:				
SG &A	1,202	826	(9.7)	(10.6)
R&D	204	126	(1.7)	(1.6)
Total Operating Expenses	1,406	952	(11.4)	(12.2)
Operating Income	1,316	714	10.7	9.2
Net Income	944	531	7.7	6.8

	1999	199	1999	1998
Net Revenue	18,243	12,327	100%	10%
Cost of Sale	14,137	9,605	(77.5)	(78.5)
Gross Margin	4,106	2,722	22.5	21.5
Operating Expenses:				
SG &A	1,788	1,202	(9.8)	(9.7)
R&D	272	204	(1.5)	(1.7)
Total Operating Expenses	2,060	1,406	(11.3)	(11.4)
Operating Income	2,046	1,316	11.2	10.7
Net Income	1,460	944	8.0	7.7

	2000	1999	2000	1999
Net Revenue	25,265	18,243	100%	100%
Cost of Sale	20,047	14,137	(79.3)	(77.5)
Gross Margin	5,218	4,106	20.7	22.5
Operating Expenses:				
SG &A	2,387	1,788	(9.5)	(9.8)
R&D	568	272	(2.2)	(1.5)
Total Operating Expenses	2,955	2,060	(11.7)	(11.3)
Operating Income	2,263	2,046	8.9	11.2
Net Income	1,666	1,460	6.6	8.0

Dell Computer Corporation had a stable cost of sale when compared each year with each other. In each year the cost of sales varies between 78-79% and therefore the gross margin has the same situation. The operating expenses have the similar situation and thus it is around 12-13% of the net revenue. The net income had a slight increasing trend. But, finally in year 2000 the net income had slightly decreased to 6.6%. The company is still making profit and this slight decrease in year 2000 is due to an increase in the R&D expenses.

5. 2.4 Ratios

Ratio analysis shows the relationship between selected items in the financial statements, which is a simple expression of the relationship of one item to another.

We can calculate four kinds of ratio measurements. All data are taken from the financial statements of Dell Computer Corporation, which appear in Appendix 1.

	1996	1997	1998	1999	2000
Current Assets	1,957.00	2,747.00	3,912.00	6,339.00	7,681.00
Current Liabilities	939.00	1,658.00	2,967.00	3,695.00	5,192.00
Current Ratio	**2.08**	**1.65**	**1.32**	**1.71**	**1.48**

For a company to be solvent in the short term has to have current ratio at least 2. Therefore, from the table it can be observed that current ratio of the company has an up and down fluctuations, and it started with 2.08 ratio and finally this amount

reduced to 1.48. Which is less than the amounts, which is required by the investors and creditors and have to be increased, thus this may lead the company to slight liquidity problems.

	1996	1997	1998	1999	2000
Quick Assets	1,372	2,255	3,330	5,275	6,740
Current Liabilities	939	1,658	2,967	3,695	5,1925
Quick Ratio	**1.46**	**1.36**	**1.12**	**1.43**	**1.30**

Quick ratio measure the company short term liquidity excluding its inventory and has to be at least one or more to be acceptable by the investors and the creditors. Dell computer corporation has the lowest quick ratio amount in year 1998 which was 1.12 and the rest is higher than that amount which shows us the company do not have any problems in its short term debt payments.

	1996	1997	1998	1999	2000
Current Assets	1,957.00	2,747.00	3,912.00	6,339.00	6,740.00
Current Liabilities	939.00	1,658.00	2,967.00	3,695.00	5,192.00
Working Capital	**1,018.00**	**1,089.00**	**945.00**	**2,644.00**	**2,489.00**

Working capital measures the amount of asset left in the company after paying all of its liabilities. Except year 1998 the company had an increasing working capital which

shows that the company's short-term debt paying ability and the company itself is getting even stronger than the previous years.

	1996	1997	1998	1999	2000
Net Sales	5,296	7,759	12,327	18,243	25,265
Average Accounts Receivables	632	815	1,195	1,790	2,351
Receivables Turnover Rate	**8.4**	**9.5**	**10.3**	**10.2**	**10.7**

Receivables turnover rate shows how many times in a given time period the company collects its accounts receivables. The higher this amounts the more beneficial to the company and it shortens the days to collect its account receivables. Dell computer Corporation has an increasing trend in its receivables turnover rate which shows that the company managed to collect its receivables in a shorter time period than the previous year and makes the company more liquid.

	1996	1997	1998	1999	2000
365 Days	365	365	365	365	365
Receivables Turnover Rate	8.4	9.5	10.3	10.2	10.7
Days to collects Average A/R	**43.5**	**38.4**	**35.4**	**35.8**	**34.1**

At the beginning year 1996, the company needed 43.5 days to collects its receivables but due to the increasing trend in the A/R Turnover Rate the days to collect A/R has

ome down which is in favour of the company. The company collects its cash in a horter time period, thus will not have any liquidity problems in the short-run.

	1996	1997	1998	1999	2000
C.O.G.S.	4,229	6,093	9,605	14,137	20,047
Average Inventory	361	340	242	253	332
Inventory Turnover Rate	**11.7**	**17.9**	**39.7**	**55.9**	**60.4**

Inventory turnover rate shows how many times in a given time period the company sells its inventory. Higher the ratio is more favourable for the company. As this h higher ratio showed that the company managed to sell its inventory in a short time period. Dell Computer Corporation had very low rates at the begging, in years 1996 and 1997 and managed to double this ratio in year 1997 and then this increasing trend continued till year 2000 and ended with 60.4.

	1996	1997	1998	1999	2000
365 Days	365	365	365	365	365
Inventory Turnover Rate	11.7	17.9	39.7	55.9	60.4
Days to Sell Average Inventory	**31.2**	**20.4**	**9.2**	**6.5**	**6.0**

At the beginning the company needed 31.2 days to sell its inventory and in the following years as the company managed to increase its inventory turnover rate in which this improvement affected the company and days to sell its inventory. It had

dropped to only 6 days in year 2000. This rate is quite a good improvement for the company and the company only needs 6 days to sell its inventory.

	1996	1997	1998	1999	2000
Days to Sell Inventory	31.2	20.4	9.2	6.5	6.0
Days to Collect A/R	43.5	38.4	35.4	35.8	34.1
Operating Cycle	**74.7**	**58.8**	**44.6**	**42.3**	**40.1**

Operating cycles shows the company's performance of selling its inventory and then collecting its accounts receivables. The lower this amount shows the company's strength in selling its goods and collecting its money in the short-run. In year 1996 Dell Computer Corporation needed 70.4 days to do so but in the following years the company had performed so well and managed to decrease this amount to only 40.1 days which is an outstanding performance for the company. In brief, this means Dell Computer Corporation needs only 40.1 days to sell its goods and collect its money from the market and this is an outstanding performance, as mentioned above, in such a competitive market.

	1996	1997	1998	1999	2000
Total Liabilities	1,175	1,908	2,975	4,556	6,163
Total Assets	2,184	7,759	12,327	18,243	25,265
Debt Ratio	**0.54**	**0.64**	**0.69**	**0.66**	**0.54**

Debt ratio shows the company's long term debt paying ability. The accepted rate between the investors and the creditors are 50% or less. Dell Computer Corporation in between the years 1996-2000 had very high debt ratio rates, which are between 54-69%. These ratios showed that Dell Computer Corporation has some difficulties in paying its debts in the long run. At the beginning years the company had 54% debt ratio which was close to the 50% and can be acceptable. But as the years passed the company couldn't manage to reduce this amount even worse happened and this amount increased up to 69% which was very bad condition for the organisation. Finally in year 2000 the company managed to reduce this amount to 54% but it needs more effort and reduce this amount in order to be more reliable company.

	1996	**1997**	**1998**	**1999**	**2000**
Gross Profit	1,067	1,666	2,722	4,106	5,218
Net Sales	5,296	7,759	12,327	18,243	25,265
Gross Profit Rate	**20.1**	**21.5**	**22.1**	**22.5**	**20.6**

Gross profit rate is the measurement of the company's profitability. It measures the amount of money earned before the expenditures and is compered with the net sales of the company. The company had an up and down fluctuating gross profits rate but still have the rates between 20.1% and 22.5%.

	1996	1997	1998	1999	2000
Operating Expenses	690	952	1,406	2,060	2,955
Net Sales	5,296	7,759	12,327	18,243	25,265
Operating Expense Ratio	**13.0**	**12.3**	**11.4**	**11.3**	**11.7**

This ratio shows the percentage of expenses to net sales and it shows the amount of expenses spent to obtain that amount of sales. The lower this ratio is more beneficial for the company and also its shows the company's effectiveness in cost management. In 1996, Dell Computer Corporation had 13% operating expense ratio and in the following years it managed to reduce this amount and increased their profit rate and thus had a very effective cost management.

	1996	1997	1998	1999	2000
Operating Income	377	714	1,316	2,046	2,263
Average Total Assets	1,817	2,570,5	3,630.5	5,572.5	
Return on Assets (ROA)	**22.5**	**27.8**	**36.2**	**36.7**	**24.7**

ROA measures the productivity of the assets regardless how they are financed. Between years 1996-1999 the ROA had an increasing trend and increased up to 36.7% but then started to decline slightly in year 1999 and in year 2000 with a sharp decline it reduced to 24,7%. The higher this ratio is more beneficial for the company.

	1996	1997	1998	1999	2000
Net Income	272	513	944	1,460	1,666
Average Total Equity	812.4	889.5	1,049.5	1,807	3,814.5
Return on Equity (ROE)	**33.5**	**57.7**	**90.0**	**80.8**	**43.7**

This ratio shows the amount earn from the stockholders' equity. The company earned 33.5% in the beginning years and this rate increased up to 90% in the following years. But in year 1999 this rate started to decrease and in year 2000 the amount decreased sharply to 43.7%. If this rate continued its increasing trend in years 1999 and 2000 it would be more beneficial for the company, but still is not too low when compared with the beginning year.

	1996	1997	1998	1999	2000
Stockholders' Equity	973	806	1,293	2,321	5,308
Share of Common Stock Outstanding	26,000	26,000	26,000	26,000	26,000
Book Value per Share	**0.037**	**0.031**	**0.049**	**0.089**	**0.204**

5.3 Market-Based Performance

Table 5.1 Market Based performance Measurements

	2000	1999	1998	1997	1996
Net Sales	25,265	18,243	12,327	7,759	5,296
Cost of Sales	20,047	14,137	9,605	6,093	4,229
Gross Margin	5,218	4,106	2,722	1,666	1,067
Operating Expenses:					
Selling Goods and Advertisements	2,387	1,788	1,202	826	595
R&D	568	272	204	126	95
Total Operating Expenses	2,955	2,060	1,406	952	690
Operating Income	2,263	2,046	1,316	714	377
Net Income	1,666	1,460	944	531	272
Marketing Contribution	2,831	2,318	1,520	840	472
Unit Marketing Contribution Per Sale	8.9	7.9	8.1	9.2	11.2

As it can observed from the table Dell Computer corporation has an increasing trend in its net income. Net Marketing contribution also has an increasing trend but when unit marketing contribution per sale is observed, it can be seen that there is an up and down fluctuations.

Table 5.2 Market Based Performance Changes

Performance Metric	Base Year	1996	1997	1998	1999	2000
Market Growth	100	18%	14%	15.2%	26.4%	14.5%
Dell's Sales Growth	100	52.4	46.5	58.9	48.0	38.5
Market Share	-----	2	5.5	7.9	9.7	10.8
Marketing Contribution	315	472	840	1,520	2,318	2,831
Sales Produces per Unit Marketing Contribution	11.0	11.2	9.2	8.1	7.9	8.9
Marketing Profitability	0.74	0.79	1.03	1.26	1.29	1.18

The above figure shows the market-related measurements of the Dell Computer Corporation. When compared with the base year 1995 the company had an up and down fluctuations in its market growth. In year 1996 it started with 18% increase and in the following two years there was a decrease in the market trend. In year 1999 it increased sharply almost doubled and became 26.4% and again in year 2000 there was a sharp decrease in the market growth of the company. Dell's sales growth had almost the same fluctuations in the past five years.

The market share had an increasing trend and it started with 2% in year 1996 and managed to increase its market share to 10.8% by the end of year 2000.

Even there was an increasing trend in the company's marketing contribution sales produces per unit of marketing contribution had an up and down fluctuations.

The company's profitability measurements showed that the company had managed to increase its profitably as the years passed till 1998 and then there was a slight decrease in the measurements but not as much as the begging years 1996-1997. It had started with 0.74 and achieved good results in the market and in year 2000 the profitability ratio became 1.18 which was better than the beginning years.

Table 5.3 PC Manufacturer Repetition Index

	Overall Score	**Technology Leadership**	**Value**	**Customer Service**	**Quality / Reliability**	**Product Design**
First	Dell (75.27)	IBM	Dell	Dell	IBM	IBM
Second	IBM (73.96)	HP	HP	IBM	Dell	Dell
Third	HP (70.65)	Dell	Gateway	HP	HP	HP
Fourth	Gateway (59.54)	Gateway	IBM	Gateway	Gateway	Gateway
Fifth	eMachines (48.08)	EMachines	eMachines	eMachines	eMachines	eMachines

IBM is the technology leader in the PC Industry and then follower of the IBM is HP and Dell only has the third place in the technology. Dell managed the have the first place in the value given to its customers and the customer service areas. Where this proves that Dell has a good customer relations and customer satisfaction. In the areas of product reliability and product design again IBM managed to take the first place in the market and the follower of IBM is a Dell computer. With the high rates taken from the value given to its customers and customer service areas Dell managed to be

the first corporation in the rank and is the leader of the computer industry according to the finding of this survey.

Dell ranks the overall in aggregate scoring with IBM following very closely in second place. Hewlett-Packard maintains a near third place finish while Gateway and eMachines settle at a more distant fourth and fifth, respectively.

5.4 Conclusion

In this section all the calculations that should be carried out in order to measure the financial (internal) and market-based (internal) performance of the Dell Computer Corporation had been calculated and also brief explanation about the findings of the calculations had been given.

SECTION 6- CONCLUSIONS AND RECOMMENDATIONS

All around the world and in national borders everything is changing according to globalisation and as a result of globalisation there is a fierce competition in the related industries. Thus, everyone is trying to take other's share in these fierce competitive markets.

6. 1 Conclusions on Dell Computer Corporation

6.1.1 Conclusions on Financial (Internal) Analysis

Dell Computer Corporation's calculations on performance evaluation had been calculated in two different viewpoints. Internal (financial) measurements had been carried out to see if the organisation had achieved a good performance internally and also external (market) measurements had been carried out in order to see the company's performance in the competitive market.

When analysing the financial and market performance year 2000 had been assumed as a current year and the other years 1996-1999 was assumed as a past performance of the company. When making these analysis, first the past performance of the company will be mentioned and then compare that past performance with their current performance (year 2000) of the company.

First, when evaluating the past performance of the Dollar and Percentage Changes in the company's financials, the following changes have occurred.

The Dollar and Percentage Changes measures the changes in the company's net sales and net income. It is a comparison of those two measurements with the changes of the previous years. The net sales had started with an increase of 46.5% in 1997 over 1996 and this increase continued in the next period and increased to 58.9% in years 1998 over 1997 and in the next period, which was 1999 over 1998, this ratio dropped by 10.9% and became 48%.

The change in net income of the company within years 1997 over 1996 had an outstanding performance and had 95.2% increase. In the following years there was an up and down fluctuations in the net sales. The comparison of 1998 over 1997 showed that the net income had decreased by almost half to 43.7%. This decreasing trend had reversed and net income had started to increase in the following period and increased to 54.7%.

When comparing these past year performances with the current year (year 2000), it is again observed that the company had continuing decrease in net sales and it decreased by almost 10% and became 38.5%. The company's net sales increasing but this increase is less than the previous years and to be more powerful the company should increase its sales. The change in the company's net income had decreased dramatically and this dramatic decrease is due to high operating costs of the company, which achieved in year 2000.

In order to be competitive and profitable in the market Dell should increase its net income.

When evaluating the changes in the company's Trend Percentages (Horizontal Analysis), which measures the changes in the company's Net Sales, Cost of Sales and Gross Profit. Year 1996 was assigned as a base year and assumed as 100% and all the changes are compared and calculated related with this base year. Net sales had an increasing trend. In 1997 the company had 146.5% net sales and this increased continued till year 1999 and finally became 344.5%, this increases is in favour of the organisation. The C.O.G.S again had an increasing trend between years 1996 (base years) and 1999. The C.O.G.S. had a change slightly less than the increase in net sales and thus, the change in gross profit would also be slightly higher than the change in C.O.G.S. The gross profit also had an increasing change when compared with the base and the previous years and it started with 100% (base year) and then increased to 156.1% and this increase continued to 255.1% in year 1998 and finally this rate became 384.4% in year 1999.

When compared with the current year (year 2000), the net income, C.O.G.S., and gross profit, all had an increasing trend. Net sales had increased to 477% and C.O.G.S. increased to 474% and finally gross profit managed to increase more than C.O.G.S. and achieved abetter performance and became 489%. This showed that the company had achieved a good performance in trend percentages (Horizontal Analysis).

Component percentages (Vertical Analysis) measure the changes in company's C.O.G.S., Gross Profit, Operating Expenses, Operating Income and Net Profit. All the calculations are based on the net revenue. The net revenue that was assumed to be 100% and all the calculation had been carried on as taking the 100% as a base.

When compared 1997 with 1996, the net revenue was assumed to be 100% and C.O.G.S. was almost the same in both years and C.O.G.S. was 78.5% of net revenue. Therefore, due to almost the same amounts in the C.O.G.S. the gross margin had almost the same results and only managed to increase 1% in year 1997. In year 1996 it was 20.5% and in 1997 it raised to 21.5%. There was a slight decrease in the company's total operating expenses. In year 1996 it was 13 % and in year 1997 it reduced to 12.2% which was in favour of the company. This decrease was reflected to the company's gross profit and net income and in both of them there was a slight increase. The company had 5.1% net income and this was increased by 1.7% and became 6.8%. When comparing the years 1998 with 1997, they were almost the same situation happened and the company achieved even a better net income results and at the year end the net income increased by 0.9% and became 7.7%. When comparing years 1999 with 1998 there was a slight decrease in the C.O.G.S. in year 1999 and this amount had made a little improvement in the net profit and finally at the year-end the company had achieved a better result and increased its net profit to 8%.

When compared the current year (year 2000) with the other years there was a decrease in the net income. Net income decreased to 6.6% from 8%. This decrease is due to an increase in the C.O.G.S. and operating expenses. In such a situation the company has to achieve a better-cost effective management and this will lead the company to a more profitable position.

Ratio analysis shows the relationship between selected items in the financial statements, which is a simple expression of the relationship of one to another. In the measurements of short-term liquidity of the company the current ratio showed that the company is losing its powerful position and is getting weaker. In the viewpoint of the investors and the creditor the current ratio should be 2 or more in order to be solvent. In the past years the current ratio had up and down fluctuations and in year 1996 it was at its highest position of 2.08 and then in the following years this ratio decreased. And, finally in year 1998, it decreased to its lowest position of 1.32 and then in the next year this ratio managed to increase to 1.71, but still is less than the amount, which is required by the investors and the creditors.

Quick ratio measures the company's short-term liquidity excluding its inventory and has to be at least one or more in order to be acceptable by the creditors and the investors. The company had an up and down fluctuations in its quick ratio but this fluctuation never brings the company below the accepted rate of 1. The company started with 1.46 and then fell down up to 1.12 and with a recover the company managed to increase this ratio up to 1.43 in year 1999.

As the working capital measures the amount of assets left in the company after paying all of its liabilities the higher this amount is stronger is the company. At the beginning, year 1996, the company had $1,018 million working capital. This amount also had an up and down fluctuations in the following years and in year 1998 this amount reduced to $945 million, and then in year 1999 working capital managed to increase with an outstanding performance and increased to $2,644 million. This

showed that the company's short-term debt paying ability and the company itself is getting even stronger than previous years.

Receivables turnover rate shows how many times in a given time period the company collects its accounts receivables. The higher this amount is more beneficial for the company. From the beginning till the end the corporation had an increasing trend in its receivables. In year 1996 the company achieved 8.4 turnover rate and this rate increased up to 10.2 in year 1999.

Days to collect average accounts receivables show how many days needed to collect its account receivables. It is totally related with the receivables turnover rate; the higher this rates the lower the days to collect average account receivables. At the beginning the company needed 43.5 days to collect it's A/R's, and as the years passed in year 1999, this rate had decreased to 35.8 days, which is in favour of the company.

Inventory turnover rate shows how many times in a given time period the company sells its inventory. Higher this ratio is more beneficial for the company. At the beginning years (year 1996) the company had only 11.7 and this ratio increased sharply and achieved an outstanding performance in year 1999 with an inventory turnover rate of 55.9.

Days to sell average inventory shows how many days needed by a company to sell its inventory and is totally related with the inventory turnover rate. Higher this ratio means the company needs lower amount of days to sell its inventory. At the beginning the company needed 31.2 days to sell its inventory and as the years passed

and with the improvements in the inventory turnover rate these amounts had reduced to only 6.5 days in year 1999. This improvement is an outstanding performance for the company and shows that the company does not have any problems when it sells its inventory.

Operating cycle is the final measurement of the short-term debt paying ability of the Dell Computer Corporation. The operating cycle shows in days, how many days a company needs to sell its inventory and collects its money back. The lower this amount is more beneficial for the company and shows the strength of the company. In year 1996 the company started with 74.7 days and in the following years managed to decrease they're operating cycle to only 42.3 days.

Debt ratio shows the company's long-term debt paying ability. The accepted rate between the creditors and the investors is 50% or lower. In the past performance measurements of the Dell Computer Corporation this ratio was always higher than the accepted rate but year 1996 was the year in which the company had the closest rate to the accepted rate. In 1996 debt ratio was 54% and this ratio increased up to 66% in year 1999 which causes a problem to the company.

Gross profit rate is a profitability measurement for the company. In the past performance evaluation the company had slight fluctuations. In year 1999 the company had 20.1% gross profit and in the following years this amount increased. Therefore, company had achieved a better results in performance measurements and this showed that the company was even more profitable than the previous years and in year 1999 the company managed to have 22.5% gross profit rate.

Operating expense ratio shows the percentage of expenses to net sales and it shows the amount of expenses spent to obtain that amount of sales. The lower this amount is more beneficial for the company means the company makes more profit. At the beginning years, year 1996, this rate was 13% and with an effective cost management of the company this rate had decreased to 11.3% in year 1999. Therefore, the profit of the company would probably increase as a result of this decrease.

Return on assets (ROA) measures the productivity of the assets regardless how they are financed. In the past performance measurements, between years 1996-1999 this ratio had increased and became 36.7% which is good for the company and showed that the company's assets are very productive.

And the final ratio is the return on equity. This ratio measure the amount earned from the stockholder's equity. At the beginning years the company earned only 33.5 % and then with a sharp increase it increased to 57.7%. In year 1997 and in year 1998 it made its top score and increased up to 90% which is an outstanding performance for the company, and then in year 1999 with a slight decrease this ratio went down to 80%. Which is still is an outstanding performance for the company and thus makes the company very profitable and showed that the company had achieved a tremendous performance.

When comparing the ratio measurements this study will compare the past performance years 1996-1999 with the current year 2000.

The short-term liquidity measurements start with current ratio. Current ratio in year 2000 was almost at its lowest level and this puts the company in a problem with its creditors and investors and the company should immediately increase this ratio to the minimum level of 2. The quick ratio measurements are more optimistic than the current ratio and it has a quite high amounts of which are more than the expected amounts and makes the company worth giving credit and also showed that the company is strong in the shorter time period. Thus the working capital has an increasing trend and therefore makes the company even stronger than the previous years. The receivables turnover rate had an increasing trend in the previous years and this increasing trend continued in the current year and this makes the company collects its receivables more than the previous years. And also, as mentioned earlier this ratio that is directly related with the days to collect accounts receivables and higher this ratio makes them collect in a shorter time period. As this ratio increased to 10.7 in the current year the days to collect account receivables reduced to 34.1 days from 35.8 days. This situation makes the company collects its money in a quicker time period and enables them to make more investments and pay its debt more easily and without having any timing problems. The inventory turnover rate again increased in the current year and thus makes the organisation to sell its goods more than the previous years in a shorter time period. The company needed 6.5 days to sell its inventory and with an increase in the inventory turnover rate this amount reduced to an only 6 days. This showed that the company does not have

any problems in selling its goods to the customers. The operating cycle is getting lower than the previous years in which shows that the ability of selling the products and collecting their money is getting even stronger and thus making the company even stronger than the previous years.

Debt ratio measures the long-term debt paying ability of the company it is quite important measurement. In the previous years this ratio was quite above the accepted average and the company had to reduce this amount at least to the average of 50%. In the current year the company had achieved an improvement in its debt ratio and reduced it by 12% to 54%. But this reduced amount is still above the average and the company has to reduce this amount to at least 50% in order said to be solvent in he long term.

The company's profitability measurement in the previous year was a little higher than the current year. The gross profit rate was 22.5% in year 1999 and this rate dropped by 1.9% and became 20.6. The operating expense ratio in the current year has also increased and this showed that the company has suffering a cost management problems in the current year or spending more money on R&D and also sales and administration. The return on assets also had decreasing trend in the current year and this ratio decreased by 12% to 24.7%. The productivity of assets has been falling and the company is losing its power and this has top be improved. And finally, the return on investment had a sharply decrease. In the year 1999 this ratio was 80.8% which was an outstanding performance but in the current year tis ratio dramatically reduced by almost half and became 43.7%. In overall the company's profitability measurements in

the current year of 2000 is not giving us a good sign about the performance of the company. Dell Computer Corporation in the current year is losing its power. And its profitability is coming down and therefore, if this situation continues in the following years this will put the company in a bad situation and will probably end with a low profit and thus a financial loss within the company.

6.1.2 Performance on Marketing Analysis

Market-based (external) measurements had been carried out in order to see the company's position in the competitive market. After analysing the external performance the results will be compared with the industry average to see the if the company had managed a good performance in overall.

The net marketing contribution (NMC) which was obtained by excluding selling goods and advertisement expenses form gross profit shows the profitability of the company. The marketing manager using these measures of net marketing contribution (NMC) can more readily evaluate the profit impact of the marketing strategy. If the products produce positive net marketing contribution (NMC), in this way marketing decisions can be evaluated with respect not only to revenue and share gains but also to how they will affect profits by the level of net marketing contribution (NMC) they produce.

These calculations showed that from the beginning, year 1996, till the end, year 2000, net marketing contribution (NMC) had an increasing trend. It had started with $472 million in year 1996 and ended with $2,831 million in year 2000, which showed that the company achieved an outstanding performance. And this was an increasing performance where it didn't have any fluctuations, which was a signal of good performance achievement. Therefore, these increases in net marketing contribution (NMC) would also increase the profit of the company in the same amount.

Unit marketing contribution per sales measures the contribution of net marketing contribution to the sales but in terms of unit not in dollar amount. This percentage is directly related with net sales and the marketing contribution. Even there was an increasing trend in both net sales and net marketing contribution the unit marketing contribution per sales had an up and down fluctuations. The reason for these fluctuations is each year is calculated separately and the amount change in both net sales and net marketing contribution (NMC) was not the same rate, thus, these differing changes was the real cause of these fluctuations. In the first year of the calculations unit marketing contribution per sales was 11.2. Then, this amount year by year decreased up to 7.9 and finally in year 2000 there was an improvement in this ratio and became 8.9 that showed that the company had achieved a better performance and more profitable growth in year 2000.

The table 5.1, page 74, shows the performance metrics of the Dell Computer Corporation and in this table market growth, Dell's sales growth and market share had been calculated. Year 1995 was taken as a base year and the changes in each year had been calculated with the changes in the previous years and comparisons are made

accordingly. The market growth shows the whole growth of the computer industry. There was an up and down fluctuations in the whole industry growth and in year 1996 it was 18% and this rate decreased in the following years and then started its increasing trend in year 1998. And this increasing trend continued till the year 1999 and reached its highest position of 26.4% but in year 2000 this growth rate dramatically decreased almost by half and became 14.5%.

If Dell Computer Corporation manages to achieve the same amount of growth rate with the market then it is said to be successful company. If it achieves less than the market growth rate then the company should do something to improve its position otherwise will have difficulties in the competitive market. If the company achieves a better performance rate than the market rate then it is said to be a profitable, strong and powerful company in the industry.

When compared with the industry growth rate Dell Computer Corporation had achieved an outstanding performance in all the years. Dell's sales growth also had an up and down fluctuations. In year 1996 the market growth rate was 18% and Dell managed to achieve 52.4% sales growth which was an outstanding performance. In the following years Dell again managed to have a growth more than the market. By the end, year 2000 Dell again proved that it had made an extreme effort and again achieved a better performance than the market.

These increases in the sales growth should also increase the Dell's market share and also the calculations proved that the company to do so. In year 1996 Dell only had 2% share in the market and with the improvements in its strategies it managed to

improve its sales volume and at the end of year 2000 the company had increased its market share to 10.8%. Almost five times bigger than the starting year.

These calculations proved that the company is getting bigger and bigger in the market and achieving a very strong positions among its competitors and thus leads them to a very profitable growth.

Marketing profitability measurements again proved that Dell increased its profit when compared to the base year of 1995. Dell increased its profitability ratio year by year and finally in year 1998 it reached its maximum amount of 1.29, and finally in year 2000 with a little decline the company closed that year with 1.18 profitability ratio. As the accepted rate is 1 then excluding years 1995 and 1996 the company had managed to be a profitable company.

When we compare the Dell position in years 1997-2000 with its competitors the following results will come out:

Table 6.1 Worldwide Market Share for Top-5 PC Manufacturers

	1997	1998	1999	2000
Compaq	13.1%	13.8%	13.5%	12.8&
IBM	8.6%	8.2%	7.9%	6.8%
Dell	5.5%	7.9%	9.7%	10.8%
HP	5.3%	5.8%	6.5%	7.6%
NEC	5.1%	4.3%	5.1%	4.3%
Others	62.4%	60.0%	57.3%	57.7%

Source: Computer Industry Forecasts; Dataquest; author's estimates

From the figure it can obviously seen that only the company whose market share is steadily rising in the whole computer industry is the Dell Computer Corporation. Even though in year 2000 Dell takes the second place in the industry if this growth rate continues than it will lead the industry in a short-run. Compaq, IBM, HP, and NEC are capturing their declining market shares to Dell Computer Corporation.

In both situation in the market and also in itself Dell is developing itself and will treat the market in the near future if continues its increasing performance.

6.2 Gaps on Performance Analysis

When evaluating both financial (internal) and market-based (external) performance of Dell Computer Corporation, two different results had been found. Net income in the financial performance measurements differs from the market-based measurements. Although there was a decreasing trend in the net income and other ratios, which measured the net income and the company's profitability while conducting financial measurements, the market-based measurements proved that the company had made profit and had an increasing trend in its net income. **Thus, the company is getting stronger increasing its market share even though its sales figures are coming down.**

The gap in this situation is that the internal measures do not have the ability to measure every aspect of the company. The financial (internal) measurements can only measure the statements, which were prepared by the company internally, and all the calculations are done according to those statements. Those statements do not have the ability to measure the market. They should also take in consideration of the

industry, the market growth, the customer satisfaction, and its competitors in the market as much as the financial (internal) based calculations.

6.3 General Conclusions on the Joint Use of Internal and External Performance Analysis

Companies should use both internal and external calculations in order to have an exact, detailed information about both the company and also the industry in order to be clear about the company's performance.

If the financial measurements proved that the company was a profitable and had an increasing net income than it is not possible to say that the company was a profitable one, unless the market based proved that the company had managed to achieve a good performance then it can be said that the company was successful and was a profitable one.

If in both situations the company had managed to achieve a good performance then it can be said that the company was a profitable one.

In Dell Computer Corporation's situation, from the financial (internal) measurements it seemed that the company's net income had decreased but from the market-based (external) the opposite situation raised. In such a situation it cannot be said that the company is losing money and its market share as it has an increasing percentage in the whole industry which will lead them to a better position in the market. Therefore this improvement will lead them to a better result and more profits and higher net

income. This is the reason why both internal and external measurements have to be carried out together. In order to be more realistic about the company's situation.

6.4 Limitations of the Study

This study aimed to measure both financial (internal) and market-based (external) performance measurements of Dell Computer Corporation.

When finding the internal measurement tools no difficulties had been taken as the company was open to the public and they had to announce what they are doing to their investors and creditors. But while trying to find out external measurement tools lots of difficulties had raised. Some of them finally found, but very limited information was in those statements and the most required ones couldn't be found. It wouldn't be possible to reach information related with customer retention, customer satisfaction, intentions to purchase, revenue per customer, relative new product sales.

These limitations made it impossible to carry out searching information related with customers and thus making necessary calculations related with customers.

6.5 Recommendations for Future Study

This study evaluated both internal and external performances of the Dell Computer Corporation. But as mentioned above the internal measurements can easily be found and applied. The external measurements were quite difficult to be reached and were quite a few in numbers. Therefore, for the future studies it would be very useful to

focus on the studies on external measurements especially on the ones with customer related topics, then this will guide the other researches, and helping them to reach all the data they require.

REFERENCES

1. Roger J. Best, "Market Based Management", 3rd edition, 2004, chp 2.
2. Bradley Gale, "tracking Competitive PositionDrives Shareholders Value," Global Management (1992): 367-71.
3. Yuxin Chen, James Hess, Ronald Wilcox, and Z. John Zhang, "Accounting Profits versus Marketing Profits: A Relevant Metric for Category Management," Marketing Science, 18, No 3 (1999): 208-229.
4. Robert Kaplan and David Norton, "The balanced Scorecard-Measures That Drive Performance," Harvard Business Review (January-February, 1992): 71-79; and Robert Eccles, "The Performance Measurement Manifesto," Harvard Business Review (January-February, 1991): 131-37.
5. George Cressman, "Choosing the Right Metric," Drive Marketing Excellence (November 1994), New York: Institute For International Research.
6. John Shank and Vijay Govindarajan, Strategic Cost Analysis (New York: Irwin, 1989): 99-112.
7. John Shank and Vijay Govindarajan, "The Perils of Cost Allocation Based on Production Volumes," Accounting Horizons 4(1988). And John Shank and Vijay Govindarajan, "Making Strategy Explicit in Cost Analysis: A case Study, "Sloan Marketing Review (Spring 1988): 15-30.
8. Michael Morris and Gene Morris, Market-Oriented Pricing (New York: NTC Business Books, 1990): 99-100; and Don Schultz, "Spreadsheet Approach to Measuring ROI for MCI," Marketing News 28 (Feb 1994): 12.
9. William Christopher," Marketing Achievement Reporting: A Profitability

Approach," Industrial Marketing Management (New York: Elsevier North Holland, Inc, 1977): 149-62; Patric Dunne and Harry Wolk, "Marketing Cost Analysis: A Modularised Contribution," Journal of Marketing (July 1977):83-94; Stanley Shapiro and V. H. Kiparad, Marketing Effectiveness: Insights From Accounting and Finance (Needham Heights, MA:Allyn and Bacon, 1984): 377-424; and Jean-Claude Larreche and Hubert Gatignon, MARKSTRAT (New York Scientific Press,1990):22-23.

10. John Narver and Stanley Slater, "The Effect of Market Orientation on Business Profitability," Journal of Marketing 54 (October 1990): 20-35.

11. Thedore Levitt, "Marketing Myopia," Harvard Business Review (July-August1968): 45-56.

12. Bryan Lukas and O.C.FERREL, "The Effect of Market Orientation on Product Innovation," Journal of the Academy of Marketing Sciences, 28, No.2, 239-247; Hubert Gatignon and Jean-Marc Xuereb, "Strategic Orientation of the Firm in New Product-Performance," Journal of Marketing Research (February 1997): 77-90; Judy Siguaw, Gene Brown, and Robert Winding II, "The Influence of Market Orientation of the Firm on Sales Force Behaviour," Journal of Marketing Research (February 1994): 106-116.

13. George Day, "Aligning the Organisation to the Market," in Reflections on the Future of Marketing, Ed. D. Lehmann and Katherine Tocz (Cambridge, MA: Marketing Science Institute, 1994): 37-52; George Day, "The Capability of Market-Driven Organisations," Journal of Marketing (January 1994): 37-52; and John Workman Jr., Christian Hornburg, and Kjell Graner, "Marketing Organisation: An Interactive Framework of Dimensions and Determinants," Journal of Marketing (July 1988): 21-41.

14. Frederic Webster, Market-Driven Management (New York: Free Press 1994): Chapter 8; Harvard Business School Press, 1993).

15. Robert F. Meigs, Jan R. Williams, Susan F. Haka, and Mark S. Bettner, "Accounting", 11th edition, 1999, chp.14.

16. A.N. Mosich, "Intermediate Accounting", 1988, 6th edition, chp.24.

17. Lyn M. Fraser, Aileen Orminston, "Understanding Financial Statements", 2004, 7th edition.

18. www.lacp.com

19. Philip Kotler and Gary Armstrong, "Principles of Marketing", 2004, 10th edition.

APPENDIX 1

Assets $Mil	1995	1996	1997	1998	1999	2000	lest Qtr
Cash and Equiv	43.0	55.0	115.0	320.0	520.0	3,809.0	4,525.0
Short-Term Investments	484.3	591.0	1,237.0	1,524.0	2,661.0	323.0	2,969.0
Accts Rec	538.0	726.0	903.0	1,486.0	2,094.0	2,608.0	4,167.0
Inventory	292.9	429.0	251.0	233.0	273.0	391.0	415.0
Other Current Assets	112.2	156.0	241.0	349.0	791.0	550.0	2,124.0
Total Current Assets	1,470.4	1,957.0	2,747.0	3,912.0	6,339.0	7,681.0	14,200.0
Net PP&E	117.0	179.0	235.0	342.0	523.0	765.0	1,627.0
Intangibles	---	---	---	---	---	304.0	---
Other Long-Term Assets	6.7	12.0	11.0	14.0	15.0	2,721.0	5,227.0
Total Assets	1,594.0	2,148.0	2,993.0	4,268.0	6,877.0	11,471.0	21,054.0

Liabilities and Stockholders' Equity $Mil

	1995	1996	1997	1998	1999	2000	2003	2004	latest Qtr
Accts Payable	447.1	466.0	1,040.0	1,643.0	2,397.0	3,538.0	5,989.0	7,316.0	8,067.0
Short-Term Debt	---	---	---	---	---	---	---	---	---
Taxes Payable	24.9	---	---	---	---	---	---	---	---
Accrued Liabilities	279.4	473.0	618.0	1,054.0	1,298.0	1,654.0	2,944.0	3,580.0	4,707.0
Other Short-Term Liabilities	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Current Liabilities	751.4	939.0	1,658.0	2,697.0	3,695.0	5,192.0	8,933.0	10,896.0	12,774.0

Long-Term Debt	113.4	113.0	18.0	17.0	512.0	508.0			506.0	505.0	505.0
Other Long-Term Liabilities	77.4	123.0	511.0	261.0	349.0	463.0			1,158.0	1,630.0	1,895.0
Total Liabilities	942.3	1,175.0	2,187.0	2,975.0	4,556.0	6,163.0			10,597.0	13,031.0	15,174.0
Total Equity	651.7	973.0	806.0	1,293.0	2,321.0	5,308.0			4,873.0	6,280.0	5,880.0
Total Liabilities & Equity	1,594.0	2,148.0	2,993.0	4,268.0	6,877.0	11,471.0			15,470.0	19,311.0	21,054.0

	1994	1995	1996	1997	1998	1999	2000	2001 H1
Compaq	10.0%	10.0%	10.1%	13.1%	13.8%	13.5%	12.8%	11.7%
IBM	8.2%	7.9%	8.6%	8.6%	8.2%	7.9%	6.8%	6.6%
Dell				5.5%	7.9%	9.7%	10.8%	13.0%
HP				5.3%	5.8%	6.5%	7.6%	7.1%
NEC**	4.1%	4.8%	4.5%	5.1%	4.3%	5.1%	4.3%	4.3%
Apple	8.3%	7.9%	5.3%					
Packard Bell	5.2%	5.3%	4.3%					
Others	69.4%	69.4%	71.5%	62.4%	60.0%	57.3%	57.7%	57.5%
Total units (in millions)	47.9	60.0	70.8	80.7	93.0	117.6	134.7	62.9

** Includes Packard Bell from 1997 on

Sources: Computer Industry Forecasts; Dataquest; author's estimates

Manufacturers not in the top-5 are included in "Others"

Panel B: US Market Shares for Major PC Manufacturers

	1994	1995	1996	1997	1998	1999	2000	2001 H1
Compaq	10.0%	12.2%	13.0%	13.1%	16.1%	16.1%	15.4%	12.5%
Dell	3.0%	4.6%	7.0%	8.7%	12.7%	16.2%	19.1%	23.3%
Gateway	N/A	5.1%	6.0%	6.8%	8.4%	9.0%	8.6%	8.0%
IBM	9.0%	8.3%	8.0%	8.4%	8.0%	7.3%	5.4%	5.6%
HP	3.0%	4.5%	5.0%	6.2%	7.5%	8.8%	11.4%	11.6%
Packard Bell	5.0%	11.3%	11.0%	6.9%				
Apple	8.0%	11.1%	6.0%	4.1%	4.3%	4.1%	4.6%	3.6%
Others	62.0%	42.9%	44.0%	45.8%	43.0%	38.5%	35.5%	35.5%
Total units (millions)	18.7	22.5	26.8	31.7	34.9	44.8	49.4	21.7

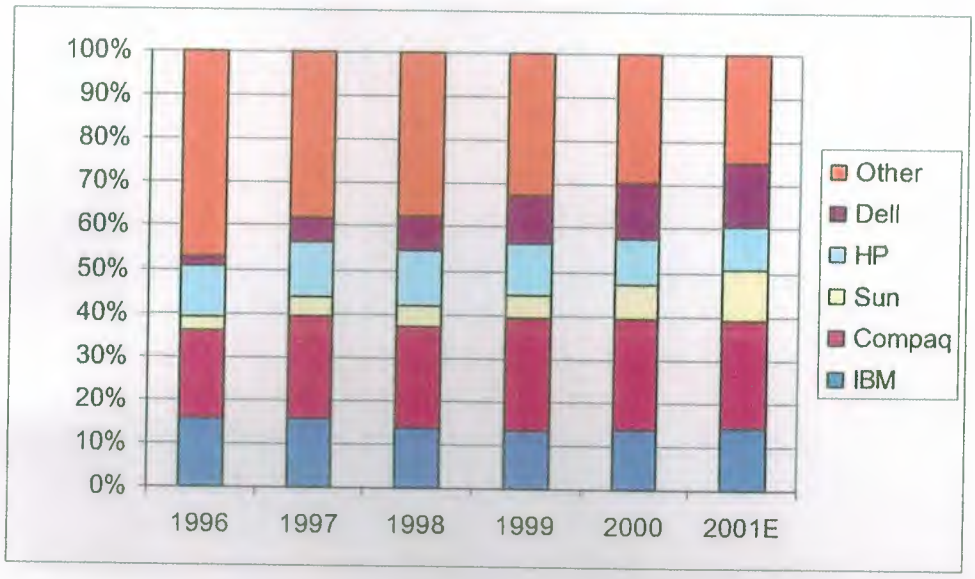
Source: Computer Industry Forecasts; IDC; Dataquest; author's estimates

Exhibit 1: Dell Income Statements, Fiscal Years 1987-2001 (in $millions).

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Net revenue	70	159	258	389	546	890	2,014	2,873	3,475	5,296	7,759	12,327	18,243	25,265	31,888
Cost of sales	54	109	177	279	364	608	1,564	2,440	2,737	4,229	6,093	9,605	14,137	20,047	25,445
Gross margin	16	50	81	110	182	282	450	433	738	1,067	1,666	2,722	4,106	5,218	6,443
Operating expenses:															
SG&A	10	27	51	80	115	182	268	423	423	595	826	1,202	1,788	2,387	3,193
R&D	2	5	7	17	22	33	42	49	65	95	126	204	272	568	482
Total operating expenses	12	33	58	97	138	215	310	472	489	690	952	1,406	2,060	2,955	3,780
Operating income	4	17	23	13	45	67	129	-39	249	377	714	1,316	2,046	2,263	2,663
Net income	2	9	14	5	27	51	102	-36	149	272	531	944	1,460	1,666	2,177
Percentage of net revenue															
Cost of sales	77.1%	68.7%	68.8%	71.8%	66.7%	68.3%	77.7%	84.9%	78.8%	79.9%	78.5%	77.9%	77.5%	79.3%	79.8%
Gross margin	22.9%	31.3%	31.2%	28.2%	33.3%	31.7%	22.3%	15.1%	21.2%	20.1%	21.5%	22.1%	22.5%	20.7%	20.2%
Operating expenses:															
SGA	14.8%	17.2%	19.8%	20.5%	21.1%	20.5%	13.3%	14.7%	12.2%	11.2%	10.6%	9.8%	9.8%	9.4%	10.0%
R&D	2.2%	3.2%	2.6%	4.4%	4.1%	3.7%	2.1%	1.7%	1.9%	1.8%	1.6%	1.7%	1.5%	2.3%	1.5%
Total operating expenses	16.8%	20.4%	22.4%	24.9%	25.2%	24.2%	15.4%	16.4%	14.1%	13.0%	12.3%	11.4%	11.3%	11.7%	11.8%
Operating income	5.9%	10.8%	8.8%	3.3%	8.2%	7.5%	6.4%	-1.4%	7.2%	7.1%	9.2%	10.7%	11.2%	9.0%	8.4%
Net income	3.2%	5.9%	5.6%	1.3%	5.0%	5.7%	5.0%	-1.2%	4.3%	5.1%	6.8%	7.7%	8.0%	6.6%	6.8%
Net revenue by geographic region															
Percentage of net revenue															
Americas	100%	96.3%	84.6%	77.3%	65.7%	72.8%	72.5%	70.9%	69.1%	66.0%	68.0%	69.0%	68.0%	71.0%	72.0%
Europe	0.0%	3.7%	15.4%	22.7%	34.3%	27.2%	27.5%	27.2%	27.4%	28.0%	26.0%	24.0%	26.0%	22.0%	20.0%
Asia-Pacific and Japan	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	1.9%	3.5%	6.0%	6.0%	7.0%	6.0%	7.0%	8.0%

Source: Dell Annual Reports. Dell's fiscal year ends January 31.

(Source: Salomon Smith Barney).



(Source: Corporate Reports).