

## **Ratio Analysis**

Ratios allow the thorough investigation of the business, in this case Philips. By comparing years from 1998 to 2002 it enables more informed judgements to be made and also allows key figures such as profit and turnover to be put into context. Ratio analysis can assist in making a decision about whether Philips have the financial backup to support the console and achieve success.

## **Liquidity Ratios**

These are ratios that help to measure the ability of Philips to settle debts in the short term. It will help to give an indication about how well Philips will be able to cope with sudden changes in demand for example obtaining more stock. And also helps to show how well they will be able to borrow and pay loans in order to support the console through promotion and marketing.

$$\begin{array}{rcll} \text{(2002) Current Ratio} = & \text{Current assets} & 362,300 & = \quad \underline{\underline{1.75}} \\ & \hline & \text{Current liabilities} & 206,500 & \end{array}$$

$$\begin{array}{rcll} \text{(2001) Current Ratio} = & \text{Current assets} & 478,900 & = \quad \underline{\underline{2.23}} \\ & \hline & \text{Current liabilities} & 214,100 & \end{array}$$

$$\begin{array}{rcll} \text{(1999) Current Ratio} = & \text{Current assets} & 452,700 & = \quad \underline{\underline{1.67}} \\ & \hline & \text{Current liabilities} & 269,700 & \end{array}$$

The current ratio shows that Philips possesses £2 of current assets for each £1 of current liabilities. In this circumstance Philips will be able to meet its current liabilities without needing to sell fixed assets or raise long-term finance. A typical figure is around 1.6:1 and therefore it can be said that Philips have a relatively good current ratio. However in spite of this, the normal figure varies according to the type of business, an electrical firm like Philips may have a different ratio to a retailer. As Philips is a large manufacturing company they are quite liquid and will be able to borrow loans and aid the console.

Philips ratio has decreased from 2001 by 0.48 to 2002, this could have been due to Philips struggling in the market or paying off loans. This comparison shows that the ratio from 2001 to 2002 has decreased dramatically, however 1.75 is still acceptable and should be sufficient to support the console when paying liabilities.

In the long term Philips should be cautious as their current ratio has decreased significantly. If it continues to decrease over the next few years there could be a problem as having a low current ratio would indicate an illiquid firm and therefore Philips may struggle to borrow and pay loans.

### **Acid Test Ratio**

This ratio measures the short term liquidity of a business. This provides a more accurate indicator of liquidity than the current ratio as stock can take time to sell. This ratio will be very useful in determining Philips ability to pay its bill over a period of 2-3 months without requiring the sale of stock.

$$\begin{array}{rclclcl} \text{(2002) Acid Ratio} & = & \text{Liquid assets} & 285,300 & = & \underline{1.3} \\ & & \hline & \text{Current liabilities} & 206,500 & & & \end{array}$$

$$\begin{array}{rclclcl} \text{(2001) Acid Ratio} & = & \text{Liquid assets} & 409,500 & = & \underline{1.9} \\ & & \hline & \text{Current liabilities} & 214,100 & & & \end{array}$$

$$\begin{array}{rclclcl} \text{(1999) Acid Ratio} & = & \text{Liquid assets} & 384,700 & = & \underline{1.4} \\ & & \hline & \text{Current liabilities} & 269,700 & & & \end{array}$$

Conventionally a normal acid figure is around 1:1 giving a balance of liquid assets and current liabilities; however some businesses run at around 0.7 which is thought to be satisfactory. The acid ratio shows that Philips have high liquidity levels particularly in 2001 and slowly decreasing to 1.3 in 2002. It indicates that Philips have enough liquid to pay off short term loans however it would not be appropriate for them to operate over long periods as holding assets in the form of cash is not profitable and does not represent an effective use of resources. Philips could aim to improve their acid ratio by selling fixed or agreeing long-term borrowing.

Philips will be able to borrow money from banks as they are very liquid however they should be very cautious in the near future especially if they are launching the console, high liquidity will just lead to financial problems.

## Gearing Ratio

The gearing ratio focuses on long-term financial stability of an organisation. It measures long-term loans as a proportion of a firm's capital employed. It will help to show how reliant Philips are upon borrowed cash. In turn, that indicates how vulnerable they might be to financial setbacks.

$$\begin{array}{rclcl} \text{(2002) Gearing} & = & \frac{\text{Long-term loans} \quad 61,600}{\text{Capital employed} \quad 501,800} & \times 100 & = 12.2 \% \end{array}$$

$$\begin{array}{rclcl} \text{(2001) Gearing} & = & \frac{\text{Long-term loans} \quad 66,400}{\text{Capital employed} \quad 618,400} & \times 100 & = 10.7 \% \end{array}$$

$$\begin{array}{rclcl} \text{(1999) Gearing} & = & \frac{\text{Long-term loans} \quad 121,800}{\text{Capital employed} \quad 594,700} & \times 100 & = 20.4 \% \end{array}$$

The data shows that Philips is clearly a low geared firm; the gearing percentage hasn't changed much from 2001 to 2002 however in 1999 it was 20.4 % not a major difference and it seems to be quite stable.

Philips have a great advantage at hand because they provide a lower risk investment. Therefore they can, negotiate loans more easily and at a lower cost. Banks will be more likely to lend money to Philips as they know that Philips have the financial backup to pay back the loans as the interest payment will be much lower. In addition shareholders will be attracted to the firm as interest payments are low, shareholders dividends are likely to increase, and this will definitely create awareness.

Having a low geared firm can also be seen as a weakness especially if the economy is growing rapidly. Philips gearing percentage is very low, this may be due to a very cautious management; therefore an investment into a firm such as Philips may be safe to shareholders but perhaps dull.

Philips have the benefit of borrowing cash quite easily and paying it back to support the console. As the console launch will require vast amount cash available Philips will be more than capable of supporting the console through marketing and finance.

### **Debtor's collection period**

Debtor's collection period is designed to show how long, on average, it takes Philips to collect debts owed by customers. This particular formulae will help to analyse Philips efficiency and how well it manages its resources. By controlling and using resources effectively it allows working capital to be controlled. And thereby giving an indication of how well Philips may be able respond to certain changes in demand and also how well it will make use of resources.

$$\begin{array}{rcll} \text{(2002) Collection period} & = & \frac{\text{Debtors} \quad 88,800}{\text{Turnover} \quad 840,000} & \times 365 = 38.5 \text{ days} \end{array}$$

$$\begin{array}{rcll} \text{(2001) Collection period} & = & \frac{\text{Debtors} \quad 246,400}{\text{Turnover} \quad 1,059,100} & \times 365 = 84.9 \text{ days} \end{array}$$

$$\begin{array}{rcll} \text{(1999) Collection period} & = & \frac{\text{Debtors} \quad 325,800}{\text{Turnover} \quad 1,189,100} & \times 365 = 100 \text{ days} \end{array}$$

The collection period in 1999 was very high compared to more recently 2002, which shows that Philips were offering more time to consumers to pay. The collection period does not vary much from 1999- 2001, this may have been a strategy employed by Philips or maybe a buy now pay later offer was introduced. However it has decreased dramatically to only 38.5 days in 2002. This particularly good sign as it enables cash to flow through quickly and efficiently, thereby increasing the liquidity level. Philips having such a low debtor's collection period it allows Philips to gather cash rapidly and pay off any loans that will definitely be required or to respond to sudden changes in demand for example stock levels.

### **Gross Profit Margin**

This ratio will compare the gross profit achieved by Philips with its sales turnover. Gross profit is earned before direct costs such as administration expenses are deducted. This is particularly useful as it will help to give an idea about how well Philips are doing and whether they have the required turnover to support the console in the future.

$$\begin{array}{rcll} \text{(2002) Gross profit margin} & = & \frac{\text{Gross profit} \quad 358,000}{\text{Turnover} \quad 840,000} & \times 100 = 42.6 \% \end{array}$$

$$\begin{array}{rcll} \text{(2001) Gross profit margin} & = & \frac{\text{Gross profit} \quad 175,800}{\text{Turnover} \quad 1,059,100} & \times 100 = 16.5 \% \end{array}$$

$$\begin{array}{rcll} \text{(1999) Gross profit margin} & = & \frac{\text{Gross profit} \quad 97,200}{\text{Turnover} \quad 1,189,100} & \times 100 = 8.1 \% \end{array}$$

The gross profit margin clearly shows that Philips have improved dramatically from 1999 to 2002, there is a major increase in the profit margin indicating that Philips have become profitable over the last few years. However it should be taken into account that direct costs have not been applied here. The data simply gives general information about how well Philips are actually doing, by looking at this data it shows that Philips have strengthened during the years and have the finance to back the console. In order for Philips to compete effectively in the market they should consider raising their profit margin over 50 %. They could do this by raising sales revenue whilst keeping the cost of sales static or reducing cost of sales made whilst maintaining the same level of sales revenue.

### **ROCE- return on capital employed**

This ratio measures the efficiency with which the firm generates profit from the funds invested in the business. This ratio will allow an effective assessment to be made of the overall financial performance of Philips.

$$\begin{array}{rcll} \text{(2002) ROCE} & = & \frac{\text{Operating profit} \quad 67,000}{\text{Capital employed} \quad 501,800} & \times 100 = 13.3 \% \end{array}$$

$$\begin{array}{rcll} \text{(2001) ROCE} & = & \frac{\text{Operating profit} \quad 22,000}{\text{Capital employed} \quad 618,400} & \times 100 = 3.5 \% \end{array}$$

$$(1999) \text{ ROCE} = \frac{\text{Operating profit} \quad 38,000}{\text{Capital employed} \quad 594,700} \times 100 = 6.3 \%$$

A typical ROCE is expected to be in the range of 20-30 % and it is quite apparent that Philips is well below the satisfactory range. The ratio has decreased from 1999 6.3 % to 3.5 % in 2001 this is unacceptable and this signifies that Philips are not in a good financial position. However the percentage has been the highest yet in 2002 at 13.3 %, they have risen from 2001 though past results do not give a good indication of Philips raising their ROCE in the future.

If Philips is to launch the console they will need to be more efficient in terms of financial responsibilities, a low figure will not be ideal to the console or any shareholders wanting to invest. Therefore in order to raise their ROCE, Philips could increase the operating profit without raising further capital or by reducing the amount of capital employed, perhaps by repaying some long-term debts.

### **Interest Cover**

The interest cover ratio gives an indication of the ability of a business to meet ongoing interest bills and therefore service debt. This will help to analyse how well Philips will be able to cover existing loans. In this way the interest cover ratio attempts to measure whether or not the company can afford the level of gearing it has committed to.

$$(2002) \text{ Interest Cover} = \frac{\text{Operating Profit} \quad 67,000}{\text{Interest paid} \quad 200} = 335$$

$$(2001) \text{ Interest Cover} = \frac{\text{Operating Profit} \quad 22,000}{\text{Interest paid} \quad 4,600} = 4.7$$

$$(2002) \text{ Interest Cover} = \frac{\text{Operating Profit} \quad 38,000}{\text{Interest paid} \quad 2,000} = 19.0$$

The data indicates that Philips have a very good interest cover and will be able to cover existing loans without using the majority of the profit gained. This is an advantage to Philips as they may well be able to cover loans to aid the console.

## **Limitations**

Ratio analysis is often based upon comparisons within one business across time and can provide vital information about how well a particular business is coping financially. However there are various precautions that need to be taken into account before making valid judgements about a firm's financial position. Therefore accounts must never be treated with 100% confidence.

Window dressing is the process of presenting the company accounts (profit & loss and balance sheet) in such a manner that it flatters the financial position of the firm. This can be misleading because the accounts may not be 100% truthful and therefore it must be taken into account that ratio analysis may not give adequate information of Philips financial position. For example the bank balance sheet holdings, like all other assets in the balance sheet, will be shown at their value on that day only. These figures obtained from Philips may have been window dressed; they may have delayed placing orders or paying bills until after the balance sheet date. This is a major problem because the balance sheet will only show information on one particular day; the next day the assets could just change therefore it is not as reliable. And as a result misleading data may lead to an incorrect conclusion.

Another limitation that can be seen is that the accounts only have data up to the year 2002 and not 2003. This makes it more difficult to analyse Philips financial position as it does not show the required data for 2003, and the data could have changed noticeably in one year. This limits down the overall conclusion that can be made about Philips overall outlook.

A huge amount of cash will be necessary to support the console in such a competitive market with rivals such as Sony and Nintendo. Philips will need to improve its efficiency as the ROCE indicates that Philips are not in a good financial position in terms of efficiency, with just 13.3% in 2002. In addition Philips will have to make sure that their liquidity levels and gearing ratios stay constant in order to borrow vast amounts of cash and pay back it back appropriately.

Seasonal factors can also greatly influence ratios because if the data was recorded on the balance at a particular time where demand was high, and then recorded in the future the data could vary due to sudden demand changes. This will also make it particularly difficult to make an informed judgement.

## **Conclusion**

Ratio analysis is a powerful tool in the interpretation of financial accounts. It can allow appraisal of financial performance and the identification of trends. It can therefore be of great help in financial planning and decision making. It is an ideal tool to make judgements on Philips capabilities of launching a console. And ratio analysis has to be taken into account for any firm deciding to launch a new console. For example if Philips went into launching the console without effective analysis of their finance and capabilities they may become bankrupt or may not even have the finance to employ the marketing mix effectively to boost sales.

It is absolutely vital that Philips have constant liquidity levels flowing in the business. The results show that 1.75 has been calculated in 2002 indicating that Philips have a stable liquidity level and therefore will be able to meet its short term debts. This is particularly pleasing as loans will be required by Philips if they decide to launch the console and banks will be more likely to lend. However if Philips don't have the constant liquidity available then they may not be able to pay bills efficiently and cannot respond to changes in demand, possibly disappointing customer satisfaction if the stock isn't ready and also delaying debts with high interest rates can become a problem.

The acid ratio also shows high liquidity levels this can be somewhat beneficial however Philips ratio is 1.3 in 2002, and this is particularly when most firms run at around 0.7 – 1. It is beneficial to a certain degree, for example banks will be more likely to lend cash and this will be excellent to support the console through thorough marketing. On the other hand having too much liquid assets does not really show an effective use of resources and isn't profitable. Philips could aim to lower their liquid assets slightly by selling fixed assets.

Long term borrowing is all is also a major factor when considering launching a huge product into a very competitive market because cash is essential to sell the product effectively. Many banks add additional payments to long term debts, which is most commonly known as interest payments. If Philips launches the console they will inevitably take out huge long term loans and this is where gearing is essential. The data shows that Philips is a low geared business with just 12.3 % in 2002. This is good because as long as Philips stays under 50 % they will remain a low geared business and therefore interest will certainly decrease. Philips could aim to keep their gearing constant this will not only help them to pay back long term loans but will also draw shareholders towards the firm.

The debtor's collection period is vital in determining how quickly cash flows through the business and needs to be quite low for certain businesses to keep their liquid levels constant. Philips current debtor's day is just 38.5 days in 2002 which is quite good in maintaining liquidity. But it has only suddenly decreased from 2001 84.9 days, this is quite worrying as it has decreased so suddenly. Philips should very cautious in the future and should make sure that debtors are not give too much time to pay as it could lead to financial problems. Philips could improve their figure by offering incentives to clients who pay on time; this will not only allow cash to be drawn in quickly but will also increase customer satisfaction. This will be needed to support the console as cash will be required promptly to pay off loans.

In conclusion, Philips has the required budget and financial backup to support the console to an extent. However Philips will have to look closely at its profit margins and aim to improve its efficiency. The market is definitely going to be very competitive and Philips have the got the right balance to borrow cash and pay it back, huge amounts of cash will have to spent on improving the product in terms of marketing mix and producing an effective console. If Philips improve their financial position they may possibly be able to afford the consoles costs and produce an effective console which will actually create sales.