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Applying Ratio Analysis Appropriate to the Probiotec Ltd to Measure and Comment upon the Company's Liquidity

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Abstract

This paper firstly introduces the Probiotec Ltd as a case study to analyze the financial situation and performance of the company through ratio analysis. Following this, using literature, it will be then argued that Probiotec Ltd should use two systems of accounting to have its financial performance developed. The limitations of financial statements will be finally discussed in the last part of this paper. The main aim of this paper is to promote the liquidity position of the company and therefore enhance the company's financial performance through applying appropriate ratios and providing some effective recommendations accordingly. This paper also aims at maximizing the usefulness of the information derived utilizing two systems of accounting. To this end, secondary data were gathered from scholarly articles, together with a financial paper of Probiotec Ltd. The results illustrate that the company does not have an appropriate liquidity position so that it is hard for the company covering the short term liabilities through the liquid assets. Moreover, it is clear that one system of accounting cannot do the job regardless of how large or small the entity is. From this paper, a conclusion can be drawn that although Probiotec Ltd has some positive ratios which indicate the acceptable performance of the company, the liquidity ratio of the company is not reliable to the shareholders. Hence, it is advisable that the company should increase its sale, along with reducing the period of credit being taken. Further to this, the company should use some methods to decline the risk of liquidity.

Keywords: Ratio Analysis, Financial Accounting, Management Accounting, Accounting Systems, Financial Statements.

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Probiotec Ltd overview

Background

Probiotec Ltd was established in 1997 as a single site operation and is based in Laverton North, Australia. This company has built a reputation for prompt response to all market opportunities and innovation. There are some factors to fuel the company's growth such as strategic acquisitions and strong organic growth. Also, having strong relationship with global market participants who are willing to run business with an innovative company could increase the growth of this company.

Key operating areas

Probiotec Limited develops, manufactures, and sells pharmaceuticals, foods, and nutraceutical products in Australia and internationally. It provides health supplements and vitamins, over-the-counter pharmaceuticals, weight management, skin care, and animal nutrition products. The company offers nutritionally balanced meal replacement program that is designed to lose weight; a range of vitamins and nutritional supplements; antibacterial hygiene products for baby care, home, and professional use; traditional medicines, including remedies for coughs and colds, skin care, arthritis and pain, and wound management, as well as vitamin supplements and general medicines; pharmacy dispensaries with galenical products and skin care formulations; and preventative medicines and treatments for common illnesses. It also provides sports nutrition products, such as protein powders, weight gainers, amino acid nutrient powders, nutrition bars, and supplements; protein supplements, meal replacement powders, internal cleansers, and herbal fat loss products for the nutritional needs of women; natural single ingredient proteins, carbohydrates, fibers, nutrients, and health specific formulas; and weight loss and detox programs. In addition, the company offers nutritional feed supplements for animals comprising milk replacer products for calves, blue calves, lambs, and kids, as well as molasses powder and horse treats, and whole milk fortifiers. Further, it provides a range of gentle, soap-free cleansing, moisturizing, and protective formulations for dry skin; a supplement for managing the symptoms of Arthritis and Osteoarthritis; and product development and contract manufacturing services. The company sells its products through pharmacies, health food stores, and supermarkets, as well as through pharmaonline.com.au.

Internal and external factors impacting on Probiotec's performance

There are some internal and external factors that can have significant impact on Probiotec's performance which in turn bring about some issues to the company. The external factors consist of political-legal, economic, socio-cultural, technological and environmental. Also the internal factors comprise threat of new entrants, bargaining power of suppliers, threat of substitute products, bargaining power of buyers and rivalry among competitors. This paper attempts to discuss some of these factors as follows:

1- Probiotec's company may face some issues related to supply chain system. These issues come from suppliers, retailers, wholesalers or producers and comprise long lead time, unreliable supply, no record for out of stock items, long delivery time and low product quality. For instance, not getting commodities in due course to the retailers can bring about losing sale and therefore losing customers. Ergo, a poor supply chain system can lead to weaken the performance of the company.

2- Competitors can have negative impact on company's performance through decreasing sale of the company caused by decreasing market share. It is obvious that decreasing market share can lead to drop the revenue of the company and therefore declining the profit of the company.

3- Environmental may also cause some problem to the company. It is clear that products should be environmentally friendly in today's market place. Hence, it can provide an indication of how successful they are in this respect.

4- Socio-cultural is another external factors is likely to impact on company's performance. Probiotec Company should take on board the views of customers to get rid of this issue. A customer driven company can strengthen its performance through focusing on customer's purchase behavior and therefore build a positive reputation. Hence, when the purchase behavior of customers changes it can lead the company to some issue such as losing customers.

Financial Analysis and ratios of Probiotec Ltd

Profitability ratios

Relationship between the profit which a company acquires and the recourses used to obtain this profit is what the profitability ratios focus on (Abraham et al. 2008). To measure this relationship two ratios could be employed as follows:

Return on equity capital employed

It is significant to evaluate how effective is shareholders' investments. Meeting this goal this ratio could be used for measuring this effectiveness (Abraham et al. 2008). It is computed as follows:

$$ROE = (\text{profit after taxation} \div \text{shareholders' funds}) \times 100 \qquad (1)$$

ROE ratio of Probiotec Ltd has been provided for the years between 2010 and 2012 as follows:

Table1. ROE

	06/2010	06/2011	06/2012
ROE	12.91%	10.47%	3.57%

Source: Datanalysis, 2012

Table 1 indicates that ROE has been decreased between 2010 and 2012. Also there is a dramatic drop in 2012 which clearly shows that company has not been successful in return on equity capital employed.

Return on assets

This ratio measure the return generated by the assets. This is not dependent how the assets are financed (Investopedia 2014). It is computed as follows:

$$ROA = (\text{net income} \div \text{total assets}) \times 100 \quad (2)$$

Table below shows the ROA ratio of Probiotec Ltd for three years:

Table 2. ROA

	06/2010	06/2011	06/2012
ROA	8.50%	7.52%	3.60%

Source: Datanalysis, 2012

Regarding this table the ROA ratio of this company has been declined slightly between 2010 and 2011 while this ratio has been dropped significantly in 2012. From this table it can be argued that Probiotec Company could not produce an appropriate ratio for shareholders.

Profit rations

Profit rations are considered as useful rations for managers and shareholders. This is because they focus on the relationship between the diverse parts of profit and the balance between them. Hence, decision makers could investigate these relationships and find changes in them through employing these profit rations (Abraham et al. 2008).

Net profit margin

This ratio concentrates on the effectiveness with which sales revenue of a business have been acquired to generate the net profit after taxation. Accordingly, net profit margin plays a significant role in forecasting the profits in the future (Abraham et al. 2008). It is computed as follows:

$$\text{Net profit margin} = (\text{Net profit after taxation}) \div (\text{Sales turnover}) \times 100 \quad (3)$$

Table3. Net profit margin

	06/2010	06/2011	06/2012
Net profit margin	12.63%	8.94%	3.38%

Source: Datanalysis, 2012

Table 3 indicates the net profit margin of Probiotec Ltd for 2010, 2011 and 2012. Based on this table it can be understood that there has been a decrease in Probiotec Ltd performance over the three years especially in 2012. It clearly shows that company could not fulfil the expectations of shareholders.

Working capital ratios (Liquidity rations)

Working capital rations focus on the liquidity and solvency of a firm. In principle, these ratios consider the ability of a company to make payment its liability. Moreover, managers could employ these ratios when they are making a short term strategy on the matters which are pivotal to company survival (Abraham et al. 2008). Followings are the most significant working capital ratios:

Current ratio

Short term assets could be compared with short term liabilities through employing current ratio (Abraham et al. 2008). In other word as it is argued in Atkinson, Young & Kaplan (2004), this ratio assesses the ability of the company to make payment its short term liability. Also this is a measure of short run liquidity (Atkinson, Young & Kaplan 2004). This ratio is calculated as follow:

$$\text{Current ratio} = (\text{Current assets}) \div (\text{Current liabilities}) \tag{4}$$

Table4. Current ratio

	06/2010	06/2011	06/2012
Current Ratio	1.43	0.67	0.71

Source: Datanalysis, 2012

Table 4 represents the current ratio of Probiotec Ltd for three years namely 2010, 2011 and 2012. From this table it can be seen that there has been a significant decrease of this ratio during the 2011 financial period. This ratio again has been increased in 2012 but it is not considered as a considerable increase in the liquidity of Probiotec Ltd. Overall, from this table it can be argued that although, the increase of liquidity of Probiotec Ltd during 2012 financial year is considered as positive performance of this company, this ratio is still less than 2010 financial period. Further to this, this table shows that the amount of short term liabilities have become more than short term assets during these three years despite the fact that this amount has been improved in 2012 compared to 2011.

Quick ratio (Liquid ratio)

Through this ratio the quick assets are compared with its short term liabilities. High quick ratio indicates the good position of a corporate (Abraham et al. 2008). There is a pivotal difference between quick ratio and current ratio so that to compute the quick ratio the amount of inventory will be excluded. This is because it is unlikely to liquidate the stocks in order to pay current liabilities (Atkinson, Young & Kaplan 2004). The formula would be as follow:

$$(\text{Current assets} - \text{stocks}) \div \text{current liabilities} \tag{5}$$

Table5. Quick ratio

	06/2010	06/2011	06/2012
Quick Ratio	0.58	0.29	0.28

Source: Datanalysis, 2012

Table above indicates the quick ratio of Probiotec Ltd during three years. As it can be seen from this table the amount of this ratio has been declined from 0.58 to 0.28 during these three financial period. It is clear that this ratio shows the bad liquidity position of Probiotec Ltd so that the liquid assets cannot cover the short term liabilities. It means these assets are not adequate to satisfy the short term liabilities.

Stock (inventory) turnover

Stock or inventory turnover concentrates on the times that a stock will be sold during a financial year (Investopedia, 2014). In other word, the value invested in stocks (inventories) would be compared to the cost of sale supported by this stock (inventory) in this ratio (Abraham et al. 2008). This ratio is calculated by formula below:

$$\text{Inventory turnover} = (\text{cost of sales} \div \text{inventory}) \qquad (6)$$

Table6. Inventory turnover

	06/2010	06/2011	06/2012
Inventory Turnover	3.34	4.85	4.63

Source: Datanalysis, 2012

According to table above, the inventory turnover ratio has been increased from 3.34 in 2010 to 4.85 in 2011 while this value has been decreased slightly from 4.85 in 2011 to 4.63 in 2012. When it comes to the inventory turnover period, as it can be seen in the table below, this value has a considerable decrease from 109.36 days in 2010 to 75.34 days in 2011. This amount has been increased to 78.77 days for 2012. From this table it can be argued that the best inventory turnover period is for 2011 financial period which is 75.34 days. Accordingly, the Probiotec Company's performance has been worsened in 2012 compared to 2011.

$$\text{Inventory turnover period} = (\text{inventory} \div \text{cost of sales}) \times 365 \qquad (7)$$

(Assuming 365 in a financial year)

Table7. Inventory turnover period

	06/2010	06/2011	06/2012
Inventory Turnover period	109.36 days	75.34 days	78.77 days

Source: Datanalysis, 2012

Debtor turnover period

This ratio investigates the link between debtors and credit sales so that it shows the period that a debtor could pay back its credit sale as liability in a financial year (Abraham et al. 2008). This ratio is calculated as follows:

Debtor turnover period= (Debtors ÷Credit sale) × 365 (8)

(Assuming 365 days in a financial year)

Table8. Debtor turnover period

	06/2010	06/2011	06/2012
Debtor turnover period	46.84 days	43.88 days	42.75 days

Source: Datanalysis, 2012

Table 8 shows the debtor turnover period of Probiotec Ltd for three years. This ratio has been decreased during these three years. This value has been become 42.75 days for 2012 financial period which shows a better performance of Probiotec Ltd compared to last two years. Hence, the control of debtors' position has been enhanced and the period that the credit is taken has been decreased.

Creditor turnover period

When it comes to creditor turnover period this ratio indicates that how long will it take that the Pribiotec Ltd pay back its credit purchases to the suppliers as creditors in a financial year (Abraham et al. 2008). This ratio is computed as follows:

Creditors turnover period = (Creditors ÷Credit purchases) ×365 (9)

Table9. Creditor turnover period

	06/2010	06/2011	06/2012
Creditor turnover period	55.48 days	58.34 days	56.45 days

Source: Datanalysis, 2012

Regarding this table the ratio of creditor turnover period has been raised from 55.48 days to 58.34 days in 2011 and then has been declined to 56.45 in 2012. Based on the table above it can be argued that ability of Probiotec Ltd to pay back its credit purchases to the suppliers has become better compared to 2011 financial period. Hence, they can satisfy the expectations of suppliers. Also it shows that Probiotec Ltd's performance to meet its liabilities has become better.

Times interest earned ratio

As it is argued in Atkinson, Young & Kaplan (2004), times interest earned ratio is another liquidity ratio and also a measure of financial risk. This ratio concentrates on the ability of a company to meet its interest payments as it is required. Moreover this author argues that this interest should be paid with cash not income otherwise the ability of the company to meet its interest payments may not be measured with this ratio (Atkinson, Young & Kaplan 2004). This ratio is computed by:

Time interest earned ratio = (EBIT ÷interest expense) (10)

(EBIT = earnings before interest and taxation)

Free cash flow

Free cash flow focuses on the excess of cash flow which is acquired by operations and is over the value of cash required for investment to get behind the company and to sustain it (Atkinson, Young & Kaplan 2004). This ratio is computed as follows:

Free cash flow = (net cash flow from operations – net cash flows from investment activities – cash dividends paid) (11)

Financing ratios

In essence these ratios concentrate on financial risk which is involved with firm's financial structure (Abraham et al. 2008). Also it could be argued that the higher the ratio the more financial risk (Atkinson, Young & Kaplan 2004).

Net gearing ratio

Net gearing ratio is a kind of financial ratios which attempt to assess the financial risk. Accordingly, capital is compared to borrowed funds by employing this ratio. Moreover, this ratio is referred to as leverage ratio and is a measure of financial leverage (Investopedia 2014).

Table10. Net gearing ratio

	06/2010	06/2011	06/2012
Net Gearing	41.42%	46.26%	37.83%

Source: Datanalysis, 2012

Table above indicates the net gearing ratio for Probiotec Ltd during three financial years. This ratio has been increased from 41.42% in 2010 to 46.26% in 2011 and then has been declined to 37.83% in 2012. From this data it can be understood that the 2011 financial year is the riskiest year for Probiotec Ltd while this risk in shareholders claim has been decreased in 2012 financial period.

Investment performance ratios

Investment performance ratios are a category of ratios that focus on the performance of firms from the landscape of an equity shareholder or investor (Abraham et al. 2008).

Cash per share

According to a study by Subramanyam & Robert (2001), cash per share is computed as formula below:

Cash per share = (Cash ÷ number of shares outstanding at the end of the period) (12)

Table11. Cash per share

	06/2010	06/2011	06/2012
Cash per share $	0.05	0.02	0

Source: Datanalysis, 2012

According to the table 11, the cash per share for Probiotec Ltd has been declined during three financial periods.

Overall analysis and discussion

In terms of company's liquidity, based on the data given, Probiotec Ltd has not had an appropriate performance generally. Regarding the current ratio although, the increase of liquidity of Probiotec Ltd during 2012 financial year is considered as positive performance of this company, this ratio is still less than 2010 financial period. Further to this, the amount of short term liabilities have become more than short term assets during these three years despite the fact that this amount has been improved in 2012 compared to 2011. Also, some researcher argue that this ratio should be between 1 and 2 to have a good liquidity position while this value for Probiotec Ltd is less than 1. According to the quick ratio the company has a bad liquidity position so that the liquid assets cannot cover the short term liabilities. Moreover, based on the inventory turnover period the company has had a variable performance so that its performance has become better from 2010 to 2011 but then, it become worse from 2011 to 2012. It is necessary to say that the performance of the company in debtor turnover period and creditor turnover period has become better. The control of debtors' position has been enhanced and the period that the credit is taken has been decreased. Also, the ability of Probiotec Ltd to pay back its credit purchases to the suppliers has become better compared to 2011 financial period. From all data given it can be argued that the company has some issue with its liquidity. It is hard for the company to cover the short term liabilities through the liquid assets.

Recommendations

In response to the need to improve the performance of the company in terms of liquidity and therefore bringing satisfaction to investors and shareholders, some recommendations are provided as follows:

1- The company should increase its sale.

2- The period of credit being taken should be decreased.

3- The company should ponder overhead costs in order to find whether or not there is an opportunity to decline them.

4- The company should find the unproductive assets and then get rid of them due to they cannot generate revenue.

5- Although, that ability of Probiotec Ltd to pay back its credit purchases to the suppliers has become better compared to 2011 financial period, it can have a negative impact on liquidity risk. Hence, it is recommended that the company should negotiate with the suppliers to increase payment terms and therefore keep the money longer.

6- The company should decrease the money that is taken for non-business use like owner's draws.

7- The prices should be always adjusted due to increase in costs and market change. Hence, the company should always check the profitability on its products to make sure they are profitable.

8- The company should sweep the funds into an interest bearing account as long as they are not needed and then sweep them back to the operating account when the company need them.

Accounting Systems

Finance is considered as the life-blood of every commercial companies. When it comes to the financial accounting, in order to measure and record a corporation's transactions and then communicate the outcomes of these transactions to users, especially shareholders, owners and managers to make pivotal financial decisions, an information system is designed and operated through a process of financial accounting. Further to the above, measuring and recording the transactions of a corporation are considered as the first main function of financial accounting and refer to double-entry bookkeeping. Also, communicating the results of the transactions is considered as the second main function of financial accounting and refers to providing final accounts. These two major functions of financial accounting can be fallen apart into further functions such as the recording and controlling of business transactions, maintaining accuracy in recording, facilitating the efficient allocation of resources, meeting the requirements of the law, presenting final accounts to the owners of the business and presenting other financial reports and analysis. On the other hand, all accounting functions can be divided into two distinct functions namely historical or stewardship function and managerial function. All these functions are involved with a process mentioned above using various systems of accounting. In addition, when it comes to the accounting system, all mentioned functions and all company's data are captured, maintained and reported by the accounting systems. In view of the above, this paper will argue that one system cannot be sufficient to maximize the usefulness of the information emerged in Probiotec Ltd from investigating the functions of financial accounting. The reason for this relates to the significance of having various accounting systems.

Accounting systems play an important role in financial accounting. This is because there is a link between accounting systems and the success of companies and shareholders in making crucial decisions. Firstly, most or all of a company's activities plus all functions of financial accounting are touched by accounting systems. As it is argued in Heagy and Lehmann (2008), all data derived from a company such as hours worked, staff on leave days, units processed and etc., are captured, maintained and reported by the accounting systems in order for managers to make significant decisions. Also, regarding these authors the internal and external activities of a company are touched by accounting systems. For instance, in terms of external activities accounting systems have an important impact on them through providing financial statements for users and through sending the transaction documents to sellers, customers and employees. In terms of internal activities, these activities are effected by accounting systems through product costing and budget tracking. Accounting systems monitor the budget and authorized expenses to prevent and detect embezzlement and theft accordingly. Due to the pervasive impact of accounting systems, the performance and efficiency of accounting systems, also the quality of accounting data are a big deal for managers (Heagy & Lehmann, 2008). The evidence clearly indicates that one system not only cannot touch all mentioned functions and activities, but also cannot have an appropriate performance and therefore reach the goal of financial accounting which is providing useful information to make pivotal financial decisions. Secondly, having sufficient and comprehensive information can ensure the numerical figures, promote the performance of financial accounting's functions and therefore provide an appropriate financial report for users. As it is argued in Toth (2012, pp. 91-93), accounting information systems can gather all comprehensive information mentioned above to enhance the activity of the companies in the case of several points such as: providing update statements, providing enough information for book keepers and tracking liquidity (Toth 2012, pp. 91-93). Belfo and Trigo (2013, p. 537) discuss that an accounting information system (AIS), which gathers, maintains and processes accounting data used for decision making, is consisted of three main subsystems namely the management reporting system (MRS), financial reporting system and general ledger system (FRS&GLSC) and transaction processing system(TPS) (Belfo & Trigo 2013, p. 537). Further to the above, there are two systems to record business transactions namely single entry book keeping and double entry book keeping (Clarke 2005). Further research shows that management accounting is suffering from financial accounting's precedence. For instance, when performing product costing, dedicating the fixed costs to produces based on machine hours is not suitable. From this evidence it can be argued that only one cost system is not adequate so that companies need a system for each aim. The same accounting systems are not able to prepare information for financial accounting. Hence, each function should have its own accounting information system (Kaplan 1988 cited in Rom & Rohde 2007, p. 47). Thus, based on the evidences given, it can be understood that to enhance the performance of functions, reach the purpose of financial accounting and providing appropriate information for stakeholders more than one system should be used in Probiotec Ltd since useful information emerge from various types of accounting systems regardless of how large or small the entity is.

Limitations of financial statement analysis

There are many general limitations that can have a significant impact on financial statement analysis. This paper attempts to discuss these limitations.

As it is argued in Jackling (2004), there are four main themes for these limitations namely the issues of allocation and classification, employing many historical information, the problem of not having the non-financial information and the sufficiency of financial statement to satisfy users' information needs. Also, this author argues that the first three themes mentioned above are considered as inherent limitations that make the financial statement an imperfect one. This is because for instance, they provide lots of historical information rather than using future transections to improve the entity's operations (Jackling, B 2004). Furthermore, According to a study by Ball and Kothari (1994), financial statement analysis is similar to selecting a new car. It is obvious that there are different cars to be chosen as well as various features like price, reputation and power which should be taken into account when buyers are choosing a new car. These authors argue that comparing Ferrari and Toyota brands are as tough as comparing a big oil company with a small textile company so that to compare that two brand of cars mentioned above the buyers should rely on the gas mileage and get rid of the rest of the features like price. From this argument it can be understood that the financial statement analysis could be relied by external users only as a general guide to evaluate the capacity of a firm's business. Different industries, changing economic environment like changes in fuel costs and also accounting principle could be some limitations of financial statement analysis accordingly. (Ball & Kothari 1994). In addition, Yongkui (2013) discusses that there are at least two limitations on financial statement analysis which are related to focusing on the results of value creation rather than the process of value creation in financial statements and also not reflecting the information about intangible assets to represent profit, revenue and other factors (Yongkui 2013). Further to the first limitation mentioned, Kaplan and Norton (1998) argue that the external users of financial statements are not only concerned with the results of value creation but also they are concerned with the process of value creation which can help to recognize the future landscape of a company when exchanges have taken place (Kaplan & Norton 1998). Moreover, regarding Dennis (1995), some matters are not put on financial statements which could be considered as another limitations of financial statements like changes in senior management, loss of main customers and the competitive environment. This author also argues that past financial performance is not a precise and comprehensive factor to forecast the future performance of a company. When it comes to the accuracy this author argues that accuracy is not guaranteed by audited statements while even these statements are subject to a degree of manipulation (Dennis, MC 1995). Another studies indicate that mislead the user, not useful for planning, wrong judgment, comparison not possible and qualitative aspects are significant limitations that financial statements are suffering from (Account-Management-Economics 2009). Finally when it comes to the limitations of financial ratio analysis as particular, Atkinson, Young and Kaplan (2004) argue that comparing two corporations with different business lines is not meaningful despite the fact that they are competitor of each other. Even when both corporations have similar business lines, the comparison of ratios might be meaningless due to employing different accounting conventions. Further to the above, due to the impact of unknown economic explaining tends in a single corporation's financial ratio could be tough (Atkinson, Young & Kaplan 2004).

Conclusion

From evidences given and analyzing data a conclusion can be drawn that, Probiotec Ltd should improve its liquidity position and also the performance of its company to satisfy the view of shareholders. In addition, this company should always investigate the internal and external factors impacting on company's performance in order to succeed in making crucial decisions in the future. Using two accounting systems is another issue to be surmounted to improve the usefulness of the information derived. To tackle these issues it is recommended that the company should increase its sale as well as reducing the period of credit being taken. Probiotec Ltd should also improve the department of the financial accounting through employing better accounting systems both in quantity and quality.

References

About (2013). Probiotec Company, viewed 17 June 2014, < http://www.probiotec.com.au/about/>.

Abraham, A, Glynn, J, Murphy M, Wilkinson B. (2008). Accounting for managers, Cengage Learning EMEA, London.

Atkinson, AA, Young, SM & Kaplan, RS. (2004). Management accounting, 4th edn, Pearson/Prentice Hall, Upper Saddle River, N.J.

Ball, R & Kothari, SP. (1994). Financial statement analysis, McGraw-Hill Internation, New York.

Belfo, F & Trigo, A. (2013). Accounting information systems: tradition and future directions. Procedia Technology, 9(1), 536-546.

Clarke, EA. (2005). Accounting: an introduction to principles and practice, 5th edn, Thomson Learning, Southbank, VIC.

Datanalysis (2012). Morningstar, viewed 17 June 2014, <http://datanalysis.morningstar.com.au.ezproxy.uow.edu.au/af/dathome?xtm-licensee=datpremium>.

Dechow, PM. (1994). Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. Journal of accounting and economics, 18(1), 3-42.

Dennis, MC. (1995). The limitation of financial statement analysis. Business Credit, 97(2), 32.

Functions of accounting (2014). Accounting theory, viewed 15 June 2014, <http://accountingtheory.weebly.com/functions-of-accounting.html>.

Garrison, RH, Noreen, EW & Brewer, PC. (2003). Managerial accounting, McGraw-Hill/Irwin, New York.

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Gearing ratio (2014). Investopedia, viewed 8 June 2014,<http://www.investopedia.com/>.

Heagy, CD & Lehmann, CM. (2008). Accounting Information Systems: A Practitioner Emphasis, Thomson Custom Solutions.

Inventory turnover (2014). Investopedia, viewed 7 June 2014, <http://www.investopedia.com/>.

Jackling, B. (2004). Accounting: a framework for decision making, McGraw-Hill, Sydney.

Kaplan, RS & Norton, DP. (1998). The balanced scorecard: translating strategy into action, Harvard Business Review Press, USA.

Kozack, S, Dennis, MC. (2001). Some of the many limitations of financial statement analysis, Covering credit company, viewed 16 June 2014,<http://www.coveringcredit.com/business_credit_articles/Credit_Risk_Analysis/art300.shtml>.

Limitation of Financial Statement Analysis. (2009). Account-Management-Economics, viewed 16 June 2014, <http://accountlearning.blogspot.com.au/2010/02/limitations-of-financial-statement.html>.

Probiotec Limited Financial Report (2012). Financial Report, s.l.: Probiotec Limited.

Probiotec Ltd details (2014). Bloomberg Businessweek, viewed 17 June 2014, <http://investing.businessweek.com/research/stocks/snapshot/snapshot.asp?ticker=PBP:AU>.

Rom, A & Rohde, C. (2007). Management accounting and integrated information systems: A literature review. International Journal of Accounting Information Systems, 8(1), 40-68.

Toth, Z. (2012). The current role of accounting information systems. Club of Economics in Miskolc, 8(1), 91-95.

Will, I, Subramanyam, KR & Robert, FH. (2001). Financial statement analysis, McGraw-Hill Internation, New York.

Yongkui, ZH. (2013). Limitations of Financial Statements and Disclosure of Core Information. Journal of Applied Sciences, 13(13), 2505-2511.