

A FINANCIAL ANALYSIS ON



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Introduction

The history of British Airways goes back to the beginning of civil aviation, which saw its launch shortly after World War I. The airline, then called Aircraft Transport and Travel Limited (AT&T) had its maiden voyage on the 25th of August 1919 FROM London to Paris. In 1924, AT&T Imperial airways was created by the merging of Handley Page Air Transport Ltd, The Daimlet Airway and British Marine Air Navigation Co. ltd and The Instone Air Line ltd. The airways created to be the main air travel instrument in the United Kingdom. They ran services from London to other European destinations, also pioneering flights into Africa, India and the Middle East (British airways, 2019). By 1940, a new airline, British Overseas Airways Corporation (BOAC) was created through another merger, and the decade saw the launch of the British European Airways and British South American Airways. These were launched to increase services to Europe and South America. A number of changes happened during the next three decades as the company kept purchasing updates equipment and aircrafts to meet their new demands and create more opportunities. By 1974, the British Overseas Airways Corporation and the British European Airways come together to form the present-day British Airways. In 1987, the airline became privatised and 10 years after, they unveiled their new corporate identity. A fleet on airbus aircrafts were added to their arsenal and by 1999, they announced the formation of a new global alliance – oneworld. By the 2000s, the International Airlines Group (IAG) was created and took over British Airways, and the airline has been involved in many joint business ventures with airlines such as Qatar airways, Malaysian airlines, Japan airlines amongst others (British airways, 1999).

British airways business model

British airways, which is managed by the International Airlines Group (IAG) have a business model which was created to maximize choice and value creation.



Fig.1. British airways business model

IAG Annual report (2019)

Unrivalled customer proposition

- IAG makes sure that British airways delivers premium quality in ensuring their customers' expectations are satisfied comprehensively. They are innovative and create organic options that stands them out from other competitors, as well as ensure the demands of their customers are always met (IAG Annual report 2019).
- British Airways ensures they are customer focused to win a disproportionate share in each customer segment (IAG Annual report 2019).

Value accretive and sustainable growth

- British airways are focused on creating organic and inorganic growth options to strengthen prevailing or pursue new global management positions (IAG Annual report 2019).
- They attract and develop the best people in the industry (IAG Annual report 2019).
- They set the industry standard for environmental stewardship, safety and security (IAG Annual report 2019).

Efficiency and innovation

- British airways focuses on reducing costs and improving competence; this is achieved by taking advantage of Group scale and synergy opportunities (IAG Annual report 2019).

- They also engage in Group-wide innovation and digital mindset to enhance productivity and best serve our customers (IAG Annual report 2019).
- They also push for incremental value with exterior business-to-business services (British Airways, 2020).

Change of management

British airways welcomed Sean Doyle as their new chief executive officer in October 2020. Sean has been a part of British Airways since 1998 where he started off as a financial analyst. His time at the airline saw him lead some senior roles such as the financial director of BA cargo, head of corporate strategy as well as the executive vice president of British Airways Americas. Prior to this appointment, he was the chief executive of Aer Lingus (British airways, 2020). This position was previously managed by Alex Cruz as he doubled as the chief executive officer and chairman of the airline. He became the chairman and CEO of British Airways in 2016. Alex started his career at American Airlines and later created his personal aviation consulting organization. After a while, he became the head of aviation at Accenture (British Airways, 2020).

Legal issues

Over 16,000 people signed a petition for British Airways to be fined in 2018. The law firm handling this, PGMBM states that the airline may face claims of over £800m stemming from a group action.

British Airways is liable to face charges that could be more than £800m in a group action over a 2018 data breach, according to a law firm. They anticipate that the over 400,000 customers and members of staff who had their data exposed could receive as much as £2000 each in compensation. The claim has been linked to a 2018 data breach where names, debit and credit card details, email addresses and other sensitive information got leaked (Sky news, 2021).

PART B

Liquidity ratios for the last five years for British airways

Quick and cash ratios

$$\text{Quick ratio} = \frac{\text{Current asset} - \text{Inventory}}{\text{Current liability}}$$

$$\text{Cash ratio} = \frac{\text{Cash}}{\text{Current liability}}$$

$$2019 = \frac{4638 - 152}{6724} = 0.667$$

$$= \frac{1158}{6724} = 0.172$$

$$2018 = \frac{4193 - 171}{6125} = 0.657$$

$$= \frac{1240}{6125} = 0.204$$

$$2017 = \frac{4341 - 128}{5653} = 0.745$$

$$= \frac{836}{5653} = 0.157$$

$$2016 = \frac{4165 - 126}{6079} = 0.663$$

$$= \frac{672}{6079} = 0.111$$

$$2015 = \frac{3400 - 139}{5700} = 0.572$$

$$= \frac{845}{5700} = 0.148$$

Current ratio 2019

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

$$= \frac{4638}{6724} = 0.689$$

Current ratio for 2018

$$= \frac{4193}{6125} = 0.685$$

Current ratio for 2017

$$= \frac{4341}{5653} = 0.768$$

Current ratio for 2016

$$= \frac{4165}{6079} = 0.685$$

Current ratio for 2015

$$= \frac{3400}{5700} = 0.596$$

Evaluation of ratios

Current ratios

Here are the current ratios for British Airways from 2015-2019. In 2015, the current ratio was 59.6%, 2016 saw it rise to 68.5%, 2017 also went up to 76.8% while in 2018 it dropped to 68.5% and rose slightly to 68.9% in 2019. All these ratios are indicative that the total amount of current assets of the airline over the respective years. In 2016, there was a significant increase in their current interest-bearing deposits which directly impacted the total current assets; there was also a big increase in their trade and other payables which also increases their liabilities. This can further mean that the airline made some significant purchases that increased their liability portfolio. By 2017, they had substantially reduced their trade and other payables overhead but incurred another one called the deferred revenue on sales tickets – this can be attributed to the increase in their current ratio. In 2018 and 2019, despite the increase in tax payables, this could have been a result of the reduction of their current interest-bearing deposit and financial instruments.

Cash ratios

This is the metric of a company's liquidity, focusing on the ratio of a company's total cash and cash equivalents in comparison to its current liabilities (Kenton, 2020). British Airways had various cash ratios over the five-year period of 2015-2019. In 2019, the airline had a ratio of 17.2%. It was slightly higher in 2018 as it was 20.4% and then it dropped to 15.7% in 2017 and further declined to 11.1% in 2016 and had a little rise in 2015 as it climbed to 14.8%. The rise in 2018 can be attributed to the increase in cash and other equivalents recorded in 2018 compared to 2017. It can also be said that they hit a low in 2016 because of the high cost associated with trade and other payables. From 2017 onwards, there was also the introduction of another liability parameter called deferred revenue on ticket sales – this addition may be linked to the subsequent increased ratios.

Comparison of British Airways and Virgin Atlantic

British Airways	2015	2016	2017	2018	2019	Virgin Atlantic 2019
Cash ratio	14.8%	11.1%	15.7%	20.4%	17.2%	63.5%
Current ratio	68.9%	68.5%	76.8%	68.5%	59.6%	14.3%

*Author's calculation of the ratios for British Airways and Virgin Atlantic
(Jan. 2021)*

The above is a comparison between British Airways and one of their competitors, Virgin Atlantic. The data shows that the cash ratio of Virgin Atlantic for 2019 is more than triple of British Airways. Cash ratios are usually used to calculate a firm's capability to pay their cash or cash equivalent resources (Kenton, 2020). In an unlikely event that Virgin Atlantic declares bankruptcy, their cash ratio would inform creditors on the worth of current assets that could be converted into cash, as well as the percentage of the current liabilities the cash or cash equivalent assets could handle. McClure (2020) further adds that there are good reasons for a company to have lots of cash on their balance sheet – one of which is that it indicates a strong company

performance. Another reason why Virgin Atlantic has a higher cash ratio in 2019 is because their current liabilities is lesser than that of British Airways. This further means that Virgin Atlantic has lesser obligations (liabilities) to handle.

The current ratio for Virgin Atlantic for the year ending 2019 was 14.3% whilst that of British Airways was 59.6%. Fernando (2020) explains the current ratio as a ratio that checks the strength of an organization to pay short-term responsibilities within a year; this also helps investors to understand how a company can use their current assets to settle current debt and other payables. Therefore, it can be inferred that British Airways has a higher advantage with creditors and potential investors in the event they want to liquidate some of their assets to settle off some debts. However, this needs to be checked with what the aviation industry pegs as the average current ratio. In the event that Virgin Atlantic's ratio is low, that may be a sign of impending issues; and if British Airways has a high current ratio, this may be indicative of the management not putting their assets to effective use (Fernando, 2020).

Recommendations

British airways should find a way to reduce their current liabilities. The addition of the deferred revenue on ticket sales has impacted their ratios and the elimination of this should help the company reduce their liabilities. They can also find a way to reduce their tax liabilities as well. If this is achievable, then this should also give them some sort of competitive advantage over their peers with limited liabilities. With the fluctuations happening with forex globally, they may also want to consider investing some of the cash available to them so that it can yield some sort of revenue to the airline. The interest-bearing long-term borrowings had a remarkable rise from 2018-2019, if the airline can find ways to reduce their borrowings, it would also help in the reduction of the overall liabilities. Increasing their share capital may also create extra revenue of the airline as this can attract tentative investors. They may also be able to make a new offer of stock as this can help increase their share capital.

PART C

Calculate the payback period, accounting rate of return and net present value of the below:

Year	A	B
0	-85	-90
1	10	25
2	20	30
3	40	35
4	55	40

Payback period

project A

$$10+20+40=70$$

This means a portion of year four is needed to break even. We need 15 to break even (85-70 = 15)

$$\frac{15}{55} = 0.27.$$

Therefore, project A has a payback period of 3.27 years.

Project B

We need 90 to break even, so: 25+30+35 = 90

Therefore, project B has a payback period of 3 years.

Based on the above, it is recommended that the project to be invested in should be project B. This is because it has a shorter payback period which means that original capital invested in project B will be realised after three years; whilst if the company chooses to invest in project A, they will get their ROI in a little over three years' time.

Accounting rate of return

According to corporate finance institute (2017), the accounting rate of return is the average net income an asset is estimated to produce, and this is then divided by its average capital cost. The result is usually in percentage. To calculate the accounting rate of return for the above projects, we need the formula: $\frac{\text{Annual average accounting profit}}{\text{average capital employed}}$

To calculate the annual average accounting profit = $\frac{\text{total profit}}{\text{number of years}}$

Project A

Total inflow = 10+20+40+55= 125

Total profit: 125-85 = 40

Annual average profit = $\frac{40}{4} = 10$

The accounting rate of return or ROCE 1 IS $\frac{10}{85} = 0.112$

ROCE 2 = $\frac{10}{42.5} = 0.235$

Project B

First, we calculate the total cash flow. 25+30+35+40=130

Total cost = 90

Total profit = 130-90 =40

Therefore, annual average profit = $\frac{40}{4} = 10$

The accounting rate of return or ROCE 1 is $\frac{10}{90} = 0.111$

ROCE 2 = $\frac{10}{45} = 0.222$

The above accounting rates of return are very similar with minimal difference to the final figures. Whilst it may be logical to invest in project B because of its slightly lower rate, it may also be

worthwhile to consider project A. The distinguishing factor between both can be the current tie value of money which is said to be dynamic. That being said, the profit margin is very slim so if the option to invest in both projects are available, then it can be considered, if not, then project B can be said to have a slightly higher rate of return.

Net present value

Gallo (2014) defined net present value as a way of calculating return on investment, for either project or an expenditure. This gives an individual making strategic decisions insight on whether an investment opportunity is worth the while. Fernando (2020) further states that the formula to calculate the new present value is $\frac{Rt}{(1+i)^t}$

Rt = Net cash inflow outflows during a single period

i = Discount rate or return that could be earned in alternative investments

t = Number of timed periods

NPV for project A

$$-85 + \frac{10}{(1+10.5\%)^1} + \frac{20}{(1+10.5\%)^2} + \frac{40}{(1+10.5\%)^3} + \frac{55}{(1+10.5\%)^4} = 6.966$$

NPV for project B

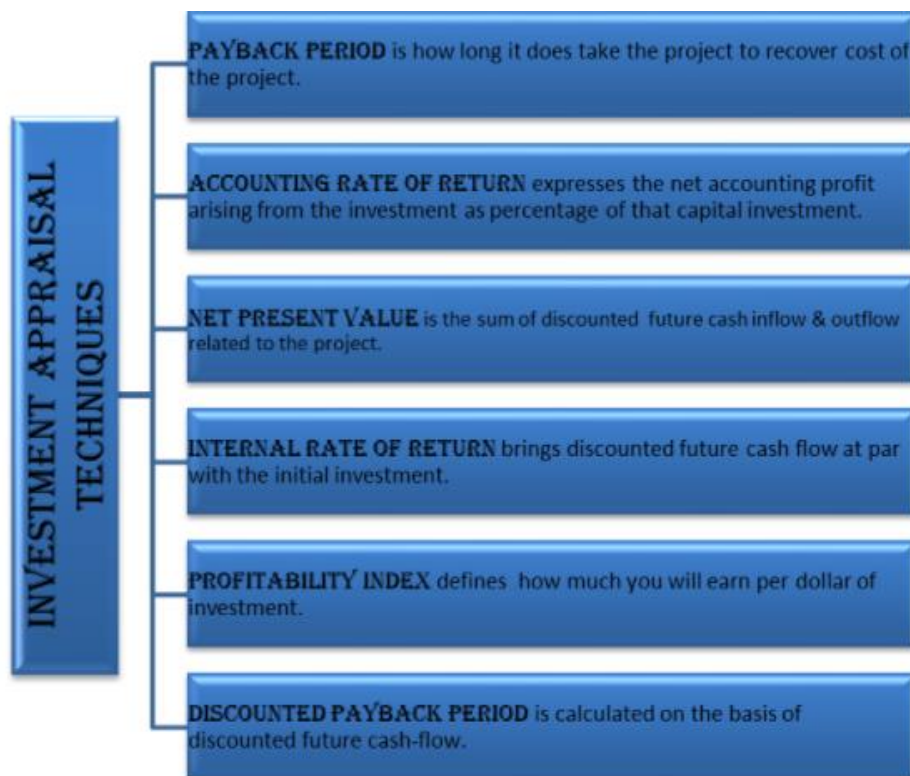
$$-90 + \frac{25}{(1+10.5\%)^1} + \frac{30}{(1+10.5\%)^2} + \frac{35}{(1+10.5\%)^3} + \frac{40}{(1+10.5\%)^4} = 9.964$$

Project A has a net present value of 6.97 while project B is approximately 10. From the above calculation, it can be said that project B has a higher value than A which means that project B has the chance of a higher return of investment. The organization should invest in project B because of its projected return of revenue rate.

Capital investment appraisal

This aspect of management accounting deals with the managerial decisions made by organizations about the assets or projects to be invested in as well as creating a finance plan for them, all for the aim of fulfilling the company's mission (Harris and El-Massri, 2011). These appraisals are carried out to locate possible options that can produce high returns on invested capital. Different organizations make use of diverse techniques to execute capital investment analysis as this involves calculating the expected value of forthcoming cashflows from the project, cost of financing as well as the risk-return of the project (Kenton, 2020).

There are different types of investment appraisal techniques: payback period, accounting rate of return, net present value, profitability index and internal rate of return. For the purpose of this report, only the accounting rate of return, net present value and payback period will be focused on.



Investment appraisal techniques, (Borad, 2019)

Accounting rate of return

Kurian (2013) defines accounting rate of return as a ratio that expresses profit before interest and taxation, usually for the accounting period as a percentage of the capital. It is also called return on investment or return on capital. It is usually calculated using the below:

$$\frac{\text{average annual profit}}{\text{Initial investment}}$$

Advantages of the accounting rate of return

Here are some of the advantages of this investment appraisal technique

- Calculation of the ARR is straightforward; it's also easy to understand the payback pattern over the life of a project (Cleartax, 2021).
- This investment appraisal is suitable for small scale investors as they can make use of it often to make financial decisions (Cleartax, 2021).
- Besides measuring the current progress of a project, it also projects the profitability of the investment (Cleartax, 2021).
- It recognizes the notion of net earnings (earnings after tax and depreciation) This is important in the appraisal of an investment proposal (Account learning, 2011).

Disadvantages of the accounting rate of return

Here are some of the pitfalls of this investment appraisal.

- It does not factor in the time value of money. Time value of money can be explained as the money available at a current time has more value than the same amount of money in the future – this is due to its potential earning capacity. This means that two different investments can bring about unequal streams of revenue. If a certain project brings in more revenue early and the other has revenue later, the accounting rate of return does not allot a higher value to the project that yields profit earlier (Murphy and Berry-Johnson, 2020).
- Accounting rate of return does not consider the effect of cash flow timing. For example: if an organization is thinking of investing in a five-year project with an initial capital of £5000 and this does not bring in revenue until the fourth or fifth year, this means that the accounting rate of return would not consider the lack of cash flow for the first three years.

This further means the organization will have to survive those initial three years without any positive revenue from the project (Murphy and Berry-Johnson, 2020).

Net present value

This investment appraisal technique considers how much an expected flow of revenue from a project is worth in current currency. This shows whether the revenue will be suitable to cover the initial investment of the project or any other cash outflows. Net present value is calculated by reducing the expected future cash flow with a precise rate in order to arrive the financial value in today's terms (Kenton, 2020). The formula for calculating this is:

$$-capital\ investment + \frac{cashflow}{(1 + i)^t}$$

i=Required return or discount rate

t=Number of time periods

Advantages of the net present value

- It considers the idea that a future pound is worth less than the present value of pounds. Every period of the net present value has discounted cashflows by another period of capital cost (Motley fool, 2015).
- It shows if an investment will yield value for the company and how much the yield will be (Motley fool, 2015).
- It also considers the cost of capital as well as risk inherent in making future projections. For example, a ten-year cash flow projection will be less than the projected cashflow of the next year. This means that future projected cash flows have a reduced impact on the net present value, more than the predicted cash flows that can happen sooner (Motley fool, 2015).

Disadvantages of the net present value

- Due to the fact that net present value calculations need the selection of a discount rate, they can be undependable if the wrong rate is used. There is also a possibility that the investment will not have the same level of risk throughout the whole period. For example, how would an organization calculate the net present value if the investment had a high

risk of loss for the first year but a relatively low risk for the last four years? The company can make use of different discount rates per period; however, this may make the model a bit more complex and might require pegging all five discount rates (Gallant, 2020).

- Another shortfall is that it makes use of some sort of speculation about the cost of capital of the organization. In a scenario where the capital cost lowers, this will result in inferior investments; if too high, it will result in letting go of a number of good investments (Motley Fool, 2015).
- It is also not useful in comparing two different projects; this is because if the method used gives back the answer in pounds, then the size of the output will be determined by the size of the input (Motley Fool, 2015).

Payback period

This can be explained as the time when the net cash flow of project equalises with the initial cash investment of the project. It is the duration of years taken to recover the initial investment made on a project (Alamgir, 2019).

Advantages of the payback period

- Payback period is simple to understand and calculate. When working on a sketch of a proposed project, it is possible to do a quick calculation of the payback period without any elaborate analysis (Bragg, 2020).
- Risk focus: This investment appraisal technique analyses how fast an investment will yield its returns, which has a measure of risk. So, this can be used to compare the possible risk of projects that have different payback periods (Bragg, 2020).
- Liquidity focus: Payback period usually favours projects that have quick return investment times, and this brings about investments which have a higher degree of short-term liquidity (Bragg, 2020).

Disadvantages of the payback period

- This technique does not consider the time value of money. If for example, £4000 is invested annually to create an investment of £40000 over a ten-year period, it may look profitable today, but the amount invested will not be the same value come ten years (Cleartax, 2021).
- Payback period only focuses on the cash flows up until the initial investment is realised. It does not consider the cash flows that surface the following years. This may cause an organization to overlook a project that has the potential of generating large revenue in following years (Borad, 2018).

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