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**Introduction to Business Finance**

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# Question 1

## a)

**Profitability**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratios** | **Formula** | **20X2** | **20X1** |
| Operating Profit Margin | (Operating profit / Revenue) \* 100 | (22/200) | (10/190) |
|  |  | 11.00% | 5.26% |
| ROA | (Operating profit / Total assets) \* 100 | (22/198) | (10/156 |
|  |  | **11.11%** | **6.41%** |
| ROE | (Net Income / Total Shareholder's Equity) \* 100 | (14/78) | (4/71) |
|  |  | 17.95% | 5.63% |

**Table 1: Profitability Ratios**

(Source: Self-Created)

**Liquidity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratios** | **Formula** | **20X2** | **20X1** |
| Current Ratio | (Current Assets / Current Liabilities) | (66/60) | (54/62) |
|  |  | 1.10 | 0.87 |
| Cash Ratio | (Cash/ Current Liabilities) | (9/60) | (5/62) |
|  |  | **0.15** | **0.08** |

**Table 2: Liquidity Ratios**

(Source: Self-Created)

**Efficiency**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratios** | **Formula** | **20X2** | **20X1** |
| Inventory Turnover Ratio | (COGS / Inventories) | (157/25) | (160/24) |
|  |  | 6.28 | 6.67 |
| Debtor Turnover Ratio | (365/Net Sales/ Debtors) | 365/(200/29) | 365/(190/25) |
|  |  | 53 | 48 |
| Assets Turnover Ratio | (Revenue / Total Assets) | (200/198) | (190/156) |
|  |  | 1.01 | 1.22 |

**Table 3: Efficiency Ratios**

(Source: Self-Created)

**Gearing**

|  |  |  |  |
| --- | --- | --- | --- |
| **Ratios** | **Formula** | **20X2** | **20X1** |
| Debt to Equity | (Debt / Equity) | (60/78) | (23/71) |
|  |  | 0.77 | 0.32 |
| Debt to Assets | (Debt / Assets) | (60/198) | (23/156) |
|  |  | 0.15 | 0.16 |

**Table 4: Gearing Ratio**

(Source: Self-Created)

## b)

**Profitability ratios**

The profitability ratios such as operating profit margin a financial metric which indicates the percentage of operating profit secured from their revenue in the financial period (Nariswari and Nugraha, 2020). The computation indicates that the company of TT has been able to secure 11 per cent worth of operating profit in the year 20X2 and 5.26 per cent for the year 20X1. This indicates an increase in profitability. The ROA or return on assets indicates that the company has been able to receive a return on the employment of its assets worth 11.11 per cent for the financial year of 20X2 and 6.41% for the financial year of 20X1. The return on Assets has also increased for the company of TT in the financial year of 20X1 which indicates company growth. As per the computation, the return received by the equity shareholders of TT from the net profit secured which is computed through ROE has been 17.95% and 5.63% for the financial years of 20X2 and 20X1 respectively. This indicates an increase in the percentage that is returned to the equity shareholders from the firm's earnings in the recent year.

**Liquidity ratios**

The liquidity ratio is a financial metric which is used for the purpose of gaining an understanding of a business organisation's ability to meet its short-term obligations by utilising the current assets at the company’s disposal (Ningsih and Sari, 2019). The financial metric of liquidity ratio usually entails the current ratio and cash ratios. In the present context, the liquidity ratio for the company of TT as per the current ratio has been 1.10:1 in the year 20X2 and 0.87:1 in the year 20X1. The cash ratio for the company also exhibits a similar trend in figures as TT earns 0.15:1 and 0.08:1 for the years 20X2 and 20X1 respectively. Considering the liquidity ratios of the firm, it can be stated that the company of TT exhibits better financial ability in meeting its short-term liability obligations from the current assets and cash reserves of the company.

**Efficiency Ratios**

The efficiency ratios are a financial metric which indicates the ability of the company to utilise the assets of the firm for the purpose of generating a healthy revenue (Patin *et al.,* 2020). In the present context, the inventory turnover ratio indicates that the business organisation of TT has been able to secure an inventory turnover worth 6.28 times and 6.67 times of the years 20X2 and 20X1 respectively. The trend indicates a decrease which suggests that the company has been insufficient in the utilisation of its inventories for generating sales. On the other hand, debtor turnover for the company is 53 days and 48 days in the financial year of 20X2 and 20X1 respectively. The increasing trend in this regard suggests that the company takes a longer period to collect its receivables from its debtors in recent years. The asset turnover ratio indicates that the company of TT has an asset turnover worth 1.01 times in the year 20X2 and 1.22 times in the year 20X1, suggesting an inefficiency in the process of utilising assets for the purpose of generating sales.

**Gearing ratios**

The gearing ratio is a financial metric that denotes the financial leverage of a business organisation (Kassi *et al.* 2019). In the present context of TT, the company's Gearing ratio which is the debt-to-equity ratio has been 0.77 times for the financial year 20X2 and 0.32 times for the year 20X1. The debt-to-equity ratio therefore indicates that the company has been geared more towards debt in recent years which is a sign of liability risk due to higher financial leverage. The debt to asset ratio on the other hand exhibits 0.15 times and 0,16 times for the facial years of 20X2 and 20X1 respectively. This suggests that the creditors of the company have less control over the company assets in the year 20X2 than in the year 20X1.

## c)

From the above financial ratio analysis, it has been identified that the company has significant potential for growth due to an increase in profitability. Therefore, it can be stated that the sale revenue generation capability and the retainment of earnings have been high. Investors as a result are likely to be attracted due to the increase in the ROE percentage. The company’s liquidity can also be considered as a potential advantage for conducting its business operations as the company is more efficient with meeting its short-term liabilities that are payable within typically one year with cash reserves and other current assets of TT in the financial period of 20X2.

Considering the present market condition and the financial performance of TT, it can be stated that the automated system of bookkeeping can be considered a feasible investment for the company. Automated software will not only save up time resulting in better time management but also aid the company of TT in the avoidance of costly errors and enhance the management of essential transactions and documents of transactions. However, its integration can be costly due to the involvement of Artificial Intelligence (AI) and machine learning in the process of accounting and bookkeeping.

# Question 2

## a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Accounting Rate of Return** | | | | | | |
| **Years** | **Cash Inflows** | | **Depreciation** | | **Net Profit** | |
| **Software A** | **Software B** | **Software A** | **Software B** | **Software A** | **Software B** |
| 1 | £16,000 | £17,000 | £10,000 | £12,500 | £6,000 | £4,500 |
| 2 | £16,000 | £17,000 | £10,000 | £12,500 | £6,000 | £4,500 |
| 3 | £16,000 | £17,000 | £10,000 | £12,500 | £6,000 | £4,500 |
| 4 | £12,000 | £17,000 | £10,000 | £12,500 | £2,000 | £4,500 |
| Average Profit | | | | | £5,000 | £4,500 |
| Initial Investment | | | | | £40,000 | £50,000 |
| Accounting Rate of Return | | | | | **12.50%** | **9.00%** |

**Table 5: Accounting Rate of Return**

(Source: Self-Created)

## b)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Payback Period** | | | | |
| **Years** | **Software A** | **Cumulative Cash flow**  **(£ in million)** | **Software B** | **Cumulative**  **Cash flow**  **(£ in million)** |
| C0 | -£40,000 | -£40,000 | -£50,000 | -£50,000 |
| C1 | £16,000 | -£24,000 | £17,000 | -£33,000 |
| C2 | £16,000 | -£8,000 | £17,000 | -£16,000 |
| C3 | £16,000 | £8,000 | £17,000 | £1,000 |
| C4 | £12,000 | £20,000 | £17,000 | £18,000 |
| Payback Period  (In Years) | 3+(8000/16000) | **3.5** | 3+(16000/17000) | **3.9** |

**Table 6: Payback Period**

(Source: Self-Created)

## c)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Net Present Value of the Projects** | | | | | |
| **Years** | **Cash Inflows** | | **Discounting**  **Factor @ 10%** | **Discounted Cash Flows** | |
| **Software A** | **Software B** | **Software A** | **Software B** |
| 1 | £16,000 | £17,000 | 0.9091 | £14,545 | £15,455 |
| 2 | £16,000 | £17,000 | 0.8264 | £13,223 | £14,050 |
| 3 | £16,000 | £17,000 | 0.7513 | £12,021 | £12,772 |
| 4 | £12,000 | £17,000 | 0.6830 | £8,196 | £11,611 |
| Present Value of the Cash Flows | | | | £47,986 | £53,888 |
| Less: Initial Investment | | | | £40,000 | £50,000 |
| NPV of the Projects | | | | **£7,986** | **£3,888** |

**Table 7: Net Present Value**

(Source: Self-Created)

## d)

The above computation indicates the accounting rate of return, the computation of the payback period and the net present value of Software A and Software B. By considering the results of the three computations above it can be advised to the TT company that the company’s software development for initiating the online model of business operations should be in favour of choosing Software A for following reasons:

*Higher Accounting Rate of Return*: The accounting rate of return which has been computed in the above section indicates that Software A has the potential to deliver a 12.50 per cent of return from the initial investment committed by the company of TT which is worth £40000 for Software A. On the other hand, the company of TT has invested £50000 for software B which upon computation reveals a return worth only 9 per cent at the end of the same financial period. Considering the above comparison, it can be deduced that software A is a viable plan in terms of return rates.

*Lower payback period*: The payback period denotes the number of years which will be taken by the company of TT for recovering the amount of investment. The present scenario indicates that Software A will be taking 3.5 years to recover the initial investment for Software A. In comparison, software B is estimated to be taking 3.9 years as per the computation of the payback period. The lower payback period indicates an attractive and fruitful investment which can be considered desirable for the company of TT (Hutchinson *et al.* 2020).

*Higher Net Present Value (NPV)*: The computation of NPV reveals the difference between the present value of the cash inflows and cash outflow present values for a financial period. The capital budgeting technique has allowed an understanding of the financial data revealed by both software projects of TT company. The computation of NPV for software A shows a value of £7,986 whereas the NPV of software B is worth £3,888. Considering the information presented it can be deduced that the future value of Software A is higher resulting in it being considered as a viable option.

## e)

Online businesses that utilise the business models of eCommerce are considerably benefited from the use of financial technologies or Fintech. Payment processes have been considerably disrupted due to the rise of fintech. Businesses can utilise fintech to estimate the best alternative available for investment, track the spending of money transfers and even conduct financial technology-based budgeting. In the present context of TT, the adoption of fintech can provide the following benefits.

*Digital Banking*: Banking facilities can be availed by the company of TT such as conducting online transactions of business, checking the required deposits and transferring funds for business activities. Facility visits in banks will not be necessary for TT as opting for loans and credit will be conducted through digital technologies. Delays in marketplace pay-outs as an eCommerce vendor will also be absent due to the adoption of fintech in online businesses.

*Stores beyond borders*: Typical boundaries are absent for stores that specialised in online businesses due to the adoption of Fintech. With the absence of geographical barriers, TT can be benefited in its expansion of the market as consumers from the global market can purchase any product of the company and pay for it while not being physically present in a TT store. FinTech such as secure wallets have enabled business organisations to adopt a more transformed process of payment while driving in the e-commerce market (Wewege *et al.* 2020). FinTech also allows online businesses to provide services and benefits such as advance payments and options of refund to the respective customers even if such customers are located beyond the borders of a nation.

*Transparency*: It can be stated that online transactions tend to be perceived as suspicious, unlike physical transactions. Therefore, the element of transparency is considerable in terms of transactions using fintech, banking and e-commerce. Therefore, it is implied that a customer's bank account is to be linked with the fintech platform for the customer to engage in online transactions. Both the company of TT and its customers have the benefit of experience in transaction transparency as the E-Commerce websites images in payment procedures for executing the purchase.

*Digitised customer service*: Customer services are automated by the execution of fintech in online businesses it is estimated that more than 50% of businesses utilise digital technology such as chatbots for achieving excellence in customer services. This allows business organisations of TT to establish real-time communication with its online customers and retailers. With these improvements, chatbots have the potential to deliver individual recommendations in aspects of finances that are based on the behaviour and individual profiles of the customers. This has significantly eliminated the presence of human errors.

# Question 3

To

The Chairperson, Caroline

TT Ltd.

The following sections entail briefing notes on the advantages and disadvantages of budgetary approaches which can be explored by the company of TT. Furthermore, this particular note also entails information regarding issues on budgetary slacks and the main sources of debt finance which can be utilised by the company of TT Limited.

## a)

*Incremental budgeting*

This budgetary approach consists of the development of a budget based on past budgets. The incremental budget therefore consists of initiating the budget of the present year by adding or subtracting incremental amounts for covering the inflation that was present in the previous budget. The core advantage of incremental budgeting is its quickness and convenience in its maintenance. The incremental budget also suits stable organisations that have decent and acceptable historic figures in financial statements (Agustiawan *et al.* 2022). However, the incremental budget can also consist of the errors and inefficiencies which were present in the previous budgets. In other words, economically inefficient activities have the potential to reflect on the current budget which has been prepared based on the previous budgets as per the incremental budgeting approach.

*Zero-based budgeting*

Zero-based budgeting is the process and approach of budgeting that requires every business's costs to be justified by the benefits that are expected within the financial period. Zero-based budgeting has been an approach developed as an alternative to the incremental budgeting approach. Through this approach, business organisations such as TT Limited have the potential to develop a budget based on budgets and actual results of previous periods along with consideration of other factors such as inflation and non-changes. The core advantages of zero-based budgeting are its ability to detect inefficient and obsolete business operations for their discontinuation. Staff engagement also increases for the preparation of budgeting due to its sheer nature of requiring considerable financial information (Mamadiyarov, 2020). However, budgeting based on the current approach will only be focused on benefits that are of shorter terms and detrimental towards the benefits that are of longer terms.

*Rolling budgeting*

The approach of rolling budgeting consists of developing a budget through consistently adding new accounting periods in the case where the earliest accounting period is expiring. The core advantages of a rolling approach to budgeting are its reduction in uncertainty by incorporating planning and control on a budget of accurate nature. However, the rolling budgeting approach consistently contributes to poor time management and cost incurrence due to its nature of constant information needs for its functioning which requires constant updating and resources.

## b)

Budgetary slacks are generally cushions that are created within a budget by the management of a business organisation for increasing the probability of the actual organisation's performance exceeding that which has been projected in the budget. The budgetary slacks have the potential to introduce mediocrity within a business organisation (Ortynsky *et al.* 2021). This significantly contributes to the decrease in the market competitive position of the firm while also introducing demotivation in the workforce due to a lack of productivity within the business organisation.

## c)

The main sources of debt financing that can aid the business organisation of TT Limited are as follows:

Business lines of credit: These are accounts which allow access to a pool of funds that can be withdrawn when required by the company and only pay interest for that particular amount **(**Saarinen, 2021).

Invoice factoring: Invoice factoring on the other hand is a type of invoice financing which can be used for selling outstanding invoices to a third party to the business for the purpose of funding a cash flow.

Business credit cards: These are credit cards that are linked to business accounts that are generated with a limit in accordance with the credit score of the business.

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