EVALUATION GUIDELINES - Written examination

EXC 21221
Strategic Management Accounting

Department of Accounting, Auditing and Business Analytics

Start date:	29.05.2019	Time 09:00
Finish date:	29.05.2019	Time 14:00

For more information about formalities, see examination paper.

Part one – Financial Planning (50%)

Exercise 1a) (15%)

	1.1.2020	31.12.2020
Fixed assets (1)	60 000 000	69 000 000
Inventory (2)	17 550 000	15 550 000
Accounts receivable (3)	11 988 000	11 340 000
Bank deposits (4)	2 607 000	3 607 000
Total assets	**92 145 000**	**99 497 000**

	1.1.2020	31.12.2020
Share capital (5)	18 000 000	26 000 000
Premium fund (5)	3 600 000	6 600 000
Retained earnings (6)	4 200 000	4 867 200
Long-term liabilities (7)	39 000 000	44 000 000
Short-term liabilities (8)	9 216 000	0
Overdraft bank account (13)	6 990 000	5 318 000
Payable taxes (9)	780 000	1 192 800
Accounts payable (10)	5 700 000	6 300 000
Unpaid share holder dividend (11)	1 800 000	2 400 000
Other short-term liabilities (12)	2 859 000	2 819 000
Total equity and liabilities	**92 145 000**	**99 497 000**

(1) Fixed assets

Opening balance 1.1.2020	60 000 000
+ Investments	16 000 000
- Depreciation	4 000 000
- Book value of sold assets	3 000 000
= Closing balance 31.12.2020	**69 000 000**

(2) Inventory

Opening balance 1.1.2020	17 550 000
- Reduction	2 000 000
= Closing balance 31.12.2020	**15 550 000**

(3) Accounts Receivable

Monthly budgeted sales	14 000 000
Monthly credit sales, 90%	12 600 000
Paid same month, 20%	2 520 000
Paid one month later, 70%	8 820 000
Paid two months later, 10%	1 260 000
November sales, unpaid 31.12.2020	1 260 000
December sales, unpaid 31.12.2020	10 080 000
A/R per 31.12.2020 1 260 000 + 10 080 000 =	**11 340 000**

(4) Bank deposits

Opening balance 1.1.2020	2 607 000
+ Increased balance	1 000 000
= Closing balance 31.12.2020	**3 607 000**

(5) Share capital and premium fund

Paid by investors	11 000 000	
- Increase share capital, nominal value	8 000 000	New balance **26 000 000**
= Premium fund	3 000 000	New balance **6 600 000**

(6) Retained earnings

Opening balance	4 200 000
+ Budgeted profit after taxes	3 067 200
- New accrual for dividend	2 400 000
= Closing balance	**4 867 200**

(7) Long-term liabilities

Opening balance	39 000 000
+ New loan	10 000 000
- Payments on old loans	5 000 000
= Closing balance	**44 000 000**

(8) Short-term liabilities

Opening balance	9 216 000
- Payments	9 216 000
= Closing balance	**0**

(9) Payable taxes

Opening balance	780 000
+ Taxes for 2020, to be paid in 2021	1 192 800
- Paid taxes for 2019	780 000
= Closing balance	**1 192 800**

(10) Accounts Payable

Cost of goods sold	86 000 000
- Decreased balance of inventory	2 000 000
= Purchases	84 000 000
Monthly purchases	7 000 000
Paid same month, 30%	2 100 000
Paid one month later, 50%	3 500 000
Paid two months later, 20%	1 400 000
November purchases, unpaid 31.12.2020	1 400 000
December purchases, unpaid 31.12.2020	4 900 000
A/P per 31.12.2020 1 400 000 + 4 900 000 =	**6 300 000**

(11) Payable dividend

Opening balance	1 800 000
+ Accrued dividend, to be paid in 2020	2 400 000
- Paid dividend in 2020	1 800 000
= Closing balance	**2 400 000**

(12) Other short-term liabilities

The opening balance consists of:		
Payable salaries	180 000	
Payable interests	720 000	
"Something else"	1 959 000	(holiday pay and other accruals)
= Opening balance 1.1.2020	2 859 000	
The closing balance consists of:		
Payable salaries	220 000	
Payable interests	640 000	
"Something else", remains unchanged	1 959 000	
= Closing balance 31.12.2020	**2 819 000**	

(13) Bank overdraft facility
99 497 000 – 26 000 000 – 6 600 000 – 4 867 200 – 44 000 000 – 1 192 800 – 6 300 000 – 2 400 000 - 2 819 000 = **5 318 000**

Question 1 b) (10%)

	1.1.2020	31.12.2020	Change in 2020	Cash-flow impact?
Fixed assets	60 000 000	69 000 000	+ 9 000 000	Partially
Inventory	17 550 000	15 550 000	- 2 000 000	Yes
Accounts receivable	11 988 000	11 340 000	- 648 000	Yes
Bank deposits	2 607 000	3 607 000	1 000 000	Net effect
Total assets	**92 145 000**	**99 497 000**	**+ 7 352 000**	

	1.1.2020	31.12.2020	Change in 2020	Cash-flow Impact?
Share capital	18 000 000	26 000 000	+ 8 000 000	Yes
Premium fund	3 600 000	6 600 000	+ 3 000 000	Yes
Retained earnings	4 200 000	4 867 200	+ 667 200	No
Long-term liabilities	39 000 000	44 000 000	+ 5 000 000	Yes
Short-term liabilities	9 216 000	0	- 9 216 000	Yes
Overdraft bank account	6 990 000	5 318 000	- 1 672 000	Net effect
Payable taxes	780 000	1 192 800	+ 412 800	Yes
Accounts payable	5 700 000	6 300 000	+ 600 000	Yes
Unpaid share holder dividend	1 800 000	2 400 000	+ 600 000	Yes
Other short-term liabilities	2 859 000	2 819 000	- 40 000	Yes
Total equity and liabilities	**92 145 000**	**99 497 000**	**+ 7 352 000**	

Net change in cash flow

Increased balance bank deposit	1 000 000
+ Decreased balance overdraft account	1 672 000
= Net budgeted cash flow in 2020, to be explained	+ 2 672 000

Profit before taxes	**4 260 000**
- Paid taxes	780 000
+ Depreciation	4 000 000
- Gain from sales of fixed assets	1 000 000
+ Decreased balance of inventory	2 000 000
+ Decreased balance of A/R	648 000
- Decreased balance of short-term liabilities	9 216 000
+ Increased balance of A/P	600 000
- Decreased balance short-term liabilities	40 000

= Net cash flow from operational activities	472 000

- Investments in fixed assets	16 000 000
+ Selling old fixed assets (3 000 000 + 1 000 000)	4 000 000

= Net cash flow from investing activities	- 12 000 000

+ Borrowing long-term	10 000 000
- Paid installments on old loans	5 000 000
+ Payments from shares holders	11 000 000
- Paid dividend	1 800 000

= Net cash flow from financing activities	+ 14 200 000
= Budgeted net cash flow 2020	**+ 2 672 000**

Question 2 a) (10%)

Activity rate, Group 1	3 000 000/5 000 = 600.00
Activity rate, Group 2	1 000 000/2 000 = 500.00
Activity rate, Group 3	400 000/4 000 = 100.00
Activity rate, Group 4	2 000 000/10 000 = 200.00

	Rome	Paris	Madrid	Prague	Total
Production volume	1 000 units	800 units	600 units	200 units	2 600 units
Direct costs	1 000 000	1 200 000	1 200 000	800 000	4 200 000
Indirect costs, Group 1	180 000	420 000	1 200 000	600 000	2 400 000
Indirect costs, Group 2	100 000	200 000	50 000	400 000	750 000
Indirect costs, Group 3	20 000	100 000	100 000	80 000	300 000
Indirect costs, Group 4	120 000	80 000	800 000	600 000	1 600 000
Total indirect costs	420 000	800 000	2 150 000	1 680 000	5 050 000
Sum costs	1 420 000	2 000 000	3 350 000	2 480 000	9 250 000
Sum costs per unit	**1 420.00**	**2 500.00**	**5 583.33**	**12 400.00**	

Question 2 b) (5%)

Activity group 1: 3 000 000 – 2 400 000 = 600 000
Activity group 2: 1 000 000 – 750 000 = 250 000
Activity group 3: 400 000 – 300 000 = 100 000
Activity group 4: 2 000 000 – 1 600 000 = 400 000
= Total costs for excess capacity: **1 350 000**

Question 2 c) (10%)

The new order does not influence the indirect costs as long as we have the available capacity to deliver the additional order. The increase in direct costs will be 400 * $ 1 500 = $ 600 000.
With a profit contribution of $ 200 000, the company must offer the order at 800 000/400 = **$ 2 000 per unit.**

The costs for the utilized capacity will change as follows:
Activity group 1: 1 050 – 700 * 600 = 210 000
Activity group 2: 600 – 400 * 500 = 100 000
Activity group 3: 1 500 - 1 000 * 100 = 50 000
Activity group 4: 600 – 400 * 200 = 40 000
Change in costs for utilized capacity: **$ 400 000**, which is the same as the reduction of costs for excess capacity.

Part two – Value Creation and Financial Performance Management (50%)

Exercise 3 (10%)

1. Strategy development – The Balanced Scorecard shall give us important information about how a company is able to execute its strategies, so therefore the right place to start is to develop a strategy.
2. Setting targets – The goal-setting process is a consequence of overall strategic priorities. We will have defined overall and long-term goals as well as more short-term targets in different relevant areas.
3. Defining critical success factors – A critical success factor as a condition that has to be met in order to reach a goal. When we know what we want to achieve, next step is therefore to define areas where we need to gain full control to succeed.
4. Designing a strategy map – A strategy map is a visualization of the critical success factors and how they are related to each other. This helps us to describe important cause and effect relationships and shows us where we have to improve our performance first.
5. Defining Key Performance Indicators – A KPI measures the degree of control we have of a given critical success factor. Hence, we need to know what is critical in a strategic sense before we start to find out what and how to measure performance in various areas
6. Performance measuring – When we have defined KPIs with a high degree of validity and reliability, we need to find out how and how often we shall measure and how to interpret our findings
7. Entering data in a scorecard – When we have measured, we need to report in a way that the recipients of our reports easily can get relevant information to help them in their daily operational priorities
8. Performing controlling activities – In some areas we will probably conclude that we have not yet reached our targets and the progression is slow. Management need to direct resources to these areas to ensure future performance improvement.

Exercise 4 a) (5%)

A cost driver is a factor that determines the level of costs in a company. We can study these factors both on an overall business level as well on an activity/business process level. If we have an overall approach, a company may conclude that many of Michael Porter's listed generic cost drivers are relevant:

1. Economies of scale – Companies that produce in higher volumes are able to utilize the resources better and cost per unit drops.
2. Learning/improving routines – Companies learn, both from their successes and failures, and this learning contribute to a better use of the resources.
3. Different levels of utilization of production capacity – We shall later learn more about the costs of excess capacity.
4. Connected activities – The more successful the company is to linking the various processes and activities to each other, the more efficient the operations are.
5. External collaboration agreements/sharing information – Strategic alliances, sharing resources for research, development and marketing.
6. Vertical integration – When the company wants to have a better control of the supply chain, investing in both the company's various suppliers as well as the companies that distributes the goods and services.
7. Right timing for launching new activities – Many good ideas were launched too early, while other activities came too late to create sufficient value.

8. Strategic decisions – Porter understood early that strategic choices influence level of costs and that many of these decisions create irreversible and therefore unavoidable fixed costs.
9. Localization – It costs more to operate in Norway than for instance in Vietnam and it costs more to operate in Oslo than in Narvik.
10. Legal requirements and regulations – The more regulations the company has comply with, such as for instance required minimum wages or the need to document the work in detail, the higher the personnel costs will be.

We find an alternative presentation in Riley's list:
The six operative drivers say something about the company's ability to create an efficient operative management:

1. The degree of employee involvement in problem solving
2. Quality Management
3. The degree of capacity utilization
4. How well functioning the production systems are
5. Product design (concerning production efficiency)
6. The ability to develop a cooperation with suppliers and distributors

The four structural drivers are:

7. Economies of scale and effects of cooperation with others
8. Experience
9. Utilization of technology
10. Diversity of product and service range

A company needs to understand its own cost behavior, not only what part of the costs that are variable, fixed or step costs, but important cause and effect relationships. If the company wants to create an advantage over its competitors, it needs to understand what causes the level of costs so that actions can be made to try to reduce them.

<u>Exercise 4 b) (10%)</u>

The nine sources for organizational waste are:

1. Errors and defects: "Do it right once and for all" and avoid errors that create extra work and dissatisfied customers!
2. Overproduction: Do not produce the goods before we need them! (This is actually a part of the Just in Time-principle)
3. Unnecessary warehousing: Ties up capital and warehouse costs! Keeping more goods in stock than what we need now does not add to the value creation (This is also related to Just in Time)
4. Waiting: Unproductive time! The extra time does not add extra value to the goods or the services produced
5. Transportation: Meaning both unnecessary physical transportation and flow of information also ties up unproductive time!
6. Unnecessary movements (particularly in the production process): Is also counterproductive!
7. Unnecessary tasks: Do not use time on activities that in the eyes of the customer/user don not add value to the product!
8. Unnecessary product attributes: Waste, if customer is not willing to pay for it! Simplify where customers don't have specific preferences or needs

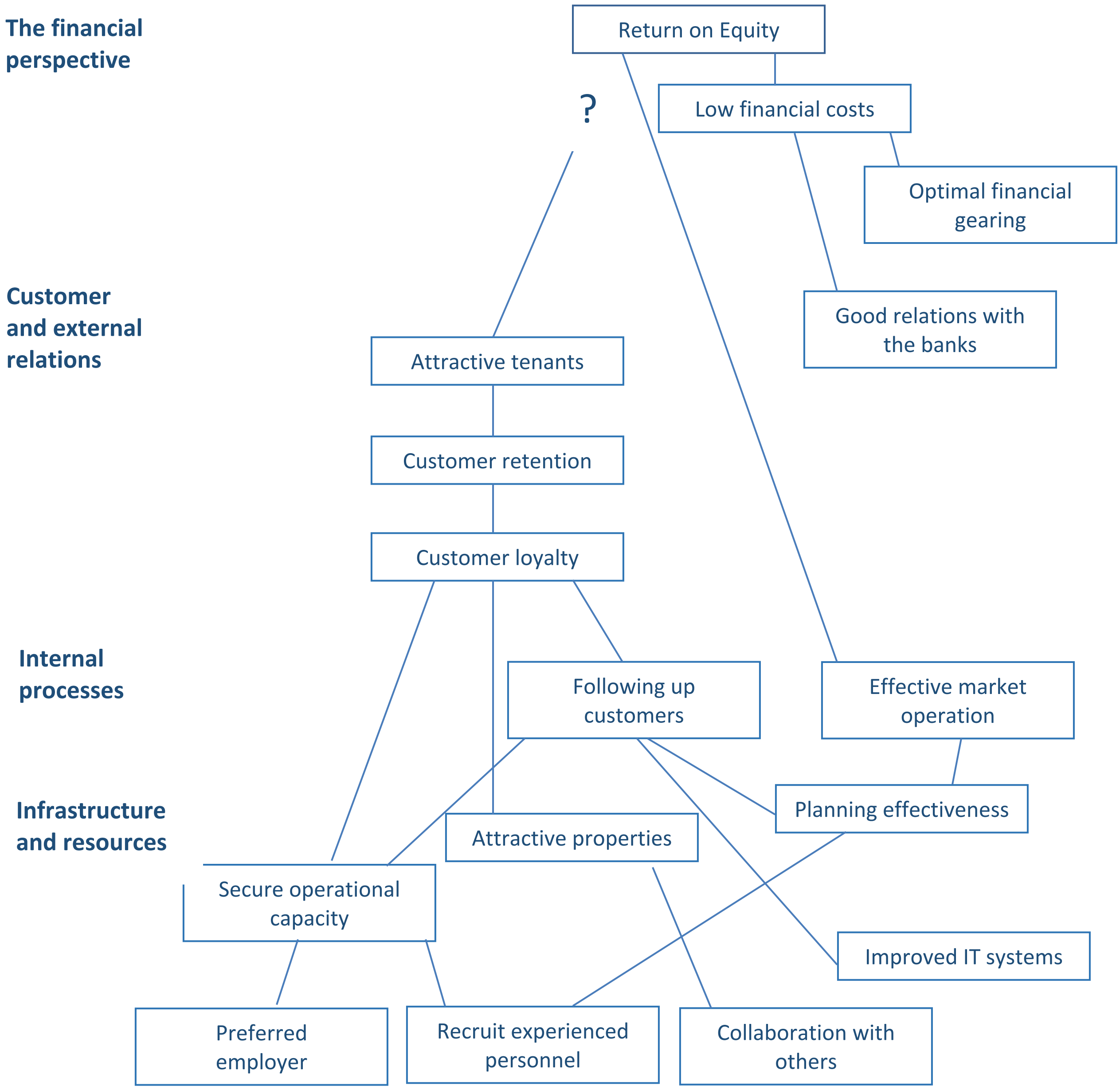
Exercise 5 a) (5%)

Challenges when implementing a well-functioning Balanced Scorecard model may occur in areas such as:

- Defining specific, measurable and quantifiable targets in relevant areas
- Extracting critical success factors; conditions that have to be met to reach a specific goal
- Defining Key Performance Indicators with a high degree of validity and reliability
- Ability to measure and report periodically
- The interpretation of our findings
- Our ability to define areas that need more attention and resources to close any gaps that may occur
- Our ability to use this information to implement actions to improve performance in critical areas

Exercise 5 b) (10%)

An indicative solution can be:



The strategy map is a tool that will help us to visualize important cause and effect relationships and how the critical success factors relate to each other. The strategy map can also help us to see if there are areas that are not covered sufficiently by the strategy plan.
If Realis' goals are to be the preferred real estate company, not only for investors, but also for the customers and in the market, there could be critical success factors that the strategy plan has left out, such as:

- How do we follow up other financial drivers for ROE than low financial costs, such as
  - The average rent per m^2
  - The portion of available space hired
  - The average remaining duration of the contracts
  - The operational costs in per cent of the rent
- How do we follow up other drivers for customer satisfaction than only focusing on increased customer support, such as:
  - Premises with high perceived functionality
  - Premises with high perceived quality and esthetic attributes
- How do we follow up drivers for employee satisfaction? One thing is to have as a goal to be the preferred employer in the industry, but how can Realis succeed in this area?

<u>Exercise 5 c) (10%)</u>

Suggested financial KPIs:

- Return on Equity (lag)
- Average rent per m^2 (lead)
- Portion of available space vacant (lead)
- Loan to value ratio (lead)
- Operational costs in per cent of rent revenues

Suggested non-financial KPIs:

- Portion of the customers that renew the rental agreement
- Portion of complaints from the customers that are handled by the company after for instance 24 hours (can we weighted according to a criticality index)
- Portion of the customers who recommend Realis to others (may indicate loyalty)
- Retention rate of employees (portion that have left the company for instance the last twelve months)