EXAMINATION QUESTION PAPER - Take-home examination

EXC 21221
Strategic Management Accounting

Department of Accounting, Auditing and Business Analytics

Start date:	19.12.2016	Time 12.00
Finish date:	21.12.2016	Time 12.00

Weight:	100% of EXC 2122
Total no. of pages:	7 incl. front page
No. of attachments files to question paper:	0
To be answered:	Individually

Answer paper size:	20 excl. attachments
Max no. answer of paper attachment files:	0
Re-sit	Ordinary

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The students shall answer the below questions *individually*. Candidates having shared solutions or parts of these will be treated and investigated as possible cheating by the Exam Office, if the graders report any suspicion on this. Help from non-students is also considered cheating.
If you quote or interpret text from other sources than your lecturing notes and material used in the classroom, you should refer to these. Upload your answers to DigiEx as *one document in A4-format*.

Part one (30%)

Question 1 (10%)

Most companies experience that they are not utilizing their resources optimally, and that excess capacity may prevail in various business processes and/or activity groups.

- Describe how a company can design costing models that enable management to analyze the cost of such excess capacity.
- Explain why excess capacity not merely represent a cost for the company but in some cases also can be regarded as an infrastructural success factor, which also may be critical for the company's ability to reach its overall and long-term goals.

Question 2 (10%)

A company can choose to analyze its cost drivers either on an overall business unit level or on a business process and activity level.

- Explain why cost driver analyses in general are regarded as a valuable tool in strategic cost management.
- Explain the difference between a cost driver analysis carried out to increase the understanding of underlying reasons for the costs of a *business unit as a whole*, and cost driver analyses that focus on *business processes and activities*.
- Give practical examples of various types of cost drivers that the management of a mid-size European manufacturing company may consider as relevant to analyze further.

Question 3 (10%)

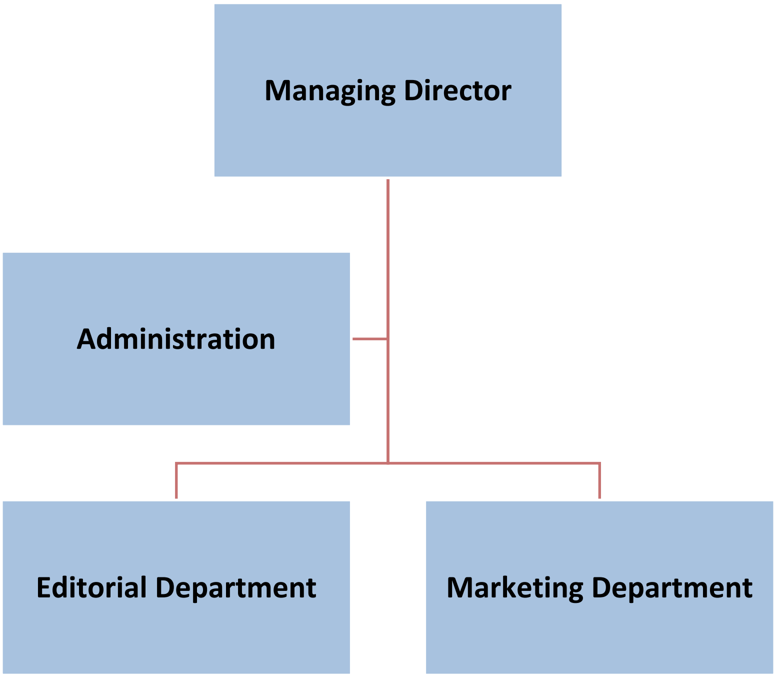
In 1985, the Harvard professor Michael Porter described a generic value chain model. At the same time, Japanese companies, mainly Toyota, had designed the framework for what we today call Lean Manufacturing. Another Harvard professor, Robert Kaplan, presented some years later the Balanced Scorecard model and followed this up with the corresponding strategy map.

- Explain the similarities between the thoughts that formed Porter's Value Chain and the principles that form Lean Manufacturing.
- Explain the similarities between the thoughts that formed Porter's Value Chain and the ideas behind the Balanced Scorecard.

Part two (40%)

In 2014, two young Norwegian entrepreneurs founded the book publishing company Media Nova AS. In the start-up year, the company made contracts with two authors and launched the two first books on the market in 2015. In 2016, two other titles were added to the catalog and two more will follow in 2017.
Media Nova AS has not made a profit so far, which has been according to the initial business plan. The company is now in the process of completing its budgets for 2017 and a crucial question is now if the company finally can start making money.

In December 2016, the organizational chart of the company looked as follows:



The company's cost structure is split in five cost centers:

Cost center	Description
Printing	Costs pertaining to the printing of the books is a 100% variable cost, if print volume is between 10 000 and 30 000 books per year.
Royalties	The authors of the books receive 12% of book sales price to retailer as royalty. This is paid in January each year, based on *actual sales volume last year*.
Editorial Department	This cost center comprises the costs of two editors, mainly payroll and other personnel costs. These costs can be considered as 100% fixed within our planning period, but will be subject to a 5% general increase in 2017.
Marketing costs	This cost center comprises the costs of two employees working with sales and marketing, both their payroll and personnel costs and other sales and marketing related costs. These costs can be considered as step costs, subject to a 20% increase in 2017.
Administration	This cost center comprises the cost of the Managing Director, her Personal Assistant, rent, telephone and other office costs as well as hired services, such as accounting, lawyers, graphic designers and auditing. These costs can also be considered as step costs, subject to a 10% increase in 2017.

We have also gathered the following information relevant for sales volume and income as well as printing volume and inventory.
Below you will find actual figures from 2015, forecasted figures for 2016 and budgeted figures for 2017:

	Author	Title	Published year	Sales price to retailer	Print costs per book
1	Doris Draugen	Modern Dog Breeding	2015	Kr 280.00	Kr 80.00
2	Otto Diesel	Vintage Tractors	2015	Kr 240.00	Kr 70.00
3	Biff Stroganov	Winter Poems	2016	Kr 220.00	Kr 60.00
4	Laurel Canyon	The Joy of Arctic Sailing	2016	Kr 320.00	Kr 100.00
5	Mogens Møll	Famous Danish Athletes	2017	Kr 300.00	Kr 90.00
6	Marcello DiVino	100 Best Political Scandals	2017	Kr 250.00	Kr 75.00

	Author	Title	Printed units	Sold units 2015	Sold units 2016	Sold units 2017
1	Doris Draugen	Modern Dog Breeding	18 000	9 600	4 400	2 500
2	Otto Diesel	Vintage Tractors	14 000	5 300	4 800	2 000
3	Biff Stroganov	Winter Poems	8 000	0	900	700
4	Laurel Canyon	The Joy of Arctic Sailing	25 000	0	11 500	7 200
5	Mogens Møll	Famous Danish Athletes	16 000	0	0	8 000
6	Marcello DiVino	100 Best Political Scandals	20 000	0	0	12 000

<u>Question 4 (5%)</u>

Calculate the sales income for 2015, the expected sales income for 2016 and the budgeted sales income for 2016.

<u>Question 5 (5%)</u>

Calculate the inventory value per 31.12.2015, the expected inventory value per 31.12.2016 and the budgeted inventory value per 31.12.2017.

The forecasted costs for 2016 are as follows:

Cost type	Cost center	Forecasted costs
Salaries and personnel expenses	Editorial	1 100 000
	Marketing	1 000 000
	Administration	1 200 000
Other operational costs	Editorial	100 000
	Marketing	600 000
	Administration	800 000
Depreciation	Administration	100 000
Financial costs	Administration	100 000

Question 6 (15%)

Present the *expected income statement (profit and loss) for 2016*, based on forecasted sales, and forecasted variable costs and fixed costs.
Present also the *budgeted income statement for 2017*, based on budgeted sales, budgeted variable and fixed costs. You may assume that the financial costs remain unchanged and the annual depreciation increases to kr 200 000.

Question 7 (10%)

Media Nova AS expects to have kr 1 800 000 as bank deposits 1st January 2017, of which kr 200 000 is locked on a specific bank account as a deposit for office rent collateral and kr 400 000 is locked on another bank account as employees' withheld taxes, to be paid 15th January 2017.

Calculate how much *new capital in the form of equity and/or loans* that Media Nova AS will need in order to maintain its cash reserves during 2017, based on the following assumptions:
- The net working capital, which is expected to be kr 1 600 000 1st January 2017, will increase by 30%
- The company will invest kr 800 000 in new sales and marketing software
- Payable corporate tax in 2017 is 25.0% of bottom line profit in 2016

Question 8 (5%)

The cash flow calculations are further based on:
- Customers (bookshop retailers) pay on average after 45 days
- The printing costs are paid on average after 15 days

How will customers paying after 30 days instead of 45 days and paying for printing costs after 30 days instead of 15 days influence your cash flow calculations?
You may assume that the change takes place early in the year so it has an effect on all transactions for 2017. You may disregard the effect of Value Added Tax and also assume that revenues and costs are evenly distributed throughout the year.

Part four (30%)

Realis AS is a company that develops and owns commercial real estate. The company currently owns approximately 800 000 m^2 shopping centers, office space, hotels and car parks in the Oslo area. The development projects consist of both total renovation of outdated premises as well as construction of new ones. External contracting companies do all the building and renovation work.

The company has currently 19 employees, working in four different organizational departments:

- Administration and finance
- Market and sales
- Development
- Technical operations

Realis AS has recently completed its strategy plan for 2017-2020, which is built on *three strategic themes:*

- Build for the future
- Preserve the values
- Create attractive and efficient rent objects

The company sums up the strategy plan as follows:

The real estate business is complex and competition in many of the market segments is stronger than before. Our shareholders have invested more than 400 million kroner in the company and the overall and long-term goal is to secure a high return on their investment. We will need to exploit our revenue potentials to a maximum and we need attractive properties suited to our tenants' needs. If a tenant chooses not to renew the lease, it may often be ten years before we can hope to get the company back as a customer. Customer retention and loyalty is therefore crucial, but such loyalty is the consequence of success in many areas. Realis AS thinks that one way to create customer satisfaction is to increase the intensity in following up their needs and complaints. We shall secure a future operational capacity that enables us to follow up our customers much better than what we have done previously and we need to strengthen our Technical Operations Department and recruit highly experienced personnel.
Preserving property values requires improved maintenance processes. We shall invest in an IT-based system to handle maintenance and repair jobs better, with a focus on improved project control, resulting in increased performance at a lower cost than today.
We need to develop competence in all four departments and make sure that key personnel do not leave the company. Realis AS shall be one of the preferred employers in the professional real estate market, with good incentive and bonus programs.

Building for the future requires efficient market behavior when new projects are recognized and planned for development. When property development decisions are made, projects must be planned well before building work commences. We will not succeed with this without collaborating better with our various partners - architects, consulting engineers, contracting firms and sub-contractors.
Within our strategy time frame, almost all operational and financial costs can be considered as being fixed and unavoidable. Hence, good profits are made when these costs are covered and this can only be secured when the rent revenues are good and the available unrented space is kept to a minimum. Effective market operation is therefore critical – we want the most attractive tenants and we need to offer efficient and well-functioning areas to let.
Although interest rates are expected to be low in the near future, financial costs are a large part of our total costs and a correct loan to value ratio seems to be 75-80% on newer property and 60-65% on property older than 10 years. Such optimal financial gearing is not alone sufficient; we need to improve our relations with the banks to secure competitive low-cost funding.
Our goals are to make Realis AS within the end of 2020 the preferred company, both for investors, customers and employees in the real estate industry. We will not succeed in this without a constant focus on gaining necessary control over critical success factors as well as measuring our own development in these areas systematically during the next four years.

Realis AS wants to implement a Balanced Scorecard model in 2017 and turns to you for advice. Not all members of management are fully aware of the potentials and pitfalls of Balanced Scorecard systems and you have agreed to make a presentation to management and other key personnel of the company.

Question 9 (10%)

In your presentation, you decide to focus on *six key areas*:

- How to make strategies operational
- Explaining strategic perspectives
- Finding the critical success factors
- Explaining the strategy map
- Finding relevant Key Performance Indicators (KPIs)
- Challenges pertaining to measurement and reporting in critical areas

What are the most important messages you want to convey at the meeting? Present your arguments in a bullet format, with a headline on each main message and necessary explaining text to elaborate further.

Question 10 (10%)

Extract from the strategy summary what you consider as critical success factors and place them in the corresponding strategic perspectives.

Question 11 (10%)

Define Key Performance Indicators that may be relevant as well as practically measurable for Realis AS in the future.