Abstract
The paper will discuss the application of the value chain principles used in education and learning and this will be exemplified in a model. Based on that model the paper focuses on the differences in value-added activities depending on whether the aim is individual life-long learning (i.e. Diploma or MBA programmes) or strategic competence development in organisations.
During interviews with individual students and companies, combined with an internal workshop, two realistic scenarios were selected as a part of a strategy process within the college. One scenario focuses on the individual competence development, where the aim is the formal life-long learning with examination and accreditation. The second scenario focuses on a more dynamic market situation, where the agenda is set by the strategic and specific competence need in organisations.
The paper concludes that the two different aims also entail two different value chains, which require different competences at the university, in its value-adding activities.

Keywords: Life-long learning, value chain, strategy, competence

1. INTRODUCTION
This paper is based on a MBA-project concerning strategy analysis and strategy development within the department of continuing education at Vitus Bering Denmark, University College conducted in the summer of 2007 [1]. It represents an example on how to deal with university strategy within the area of life-long learning. The context is Danish and the market situation may be different in other countries, but some of the models and methods for strategy development are universal.

2. THE VALUE CHAIN
In strategy analysis and strategy development the value chain model is one way of thinking. The value chain concept was used in accounting analysis some years before Professor Michael Porter suggested that it could be used in strategy analysis as well [2]. The definition of “the value chain”, according to Lynch [2], is: “The value chain identifies where the value is added in an organisation and links the process with the main functional parts of the organisation”.
In the definition, it is important to stress that the value is defined by the user or customer of the company’s products or services. Porter’s value chain is illustrated in figure 1 and is developed mainly for item or product manufacturing businesses. Porter divides the activities into two groups: The primary activities, which are typically directly involved in the logistic product flow, and the support activities, which deals with more indirect activities. When used in strategic analysis, Porter focuses on the added value that each activity contributes with. Furthermore, Porter focuses on the contribution to the competitive advantage of the company that each part might make.
This model of the value chain is difficult to apply in companies and organisations that deliver different kinds of services. Other researchers have come up with other models for other types of businesses. Stabell and Fjeldstad [4] define their three models on the basis of the value creating logic as illustrated in figure 2.

<table>
<thead>
<tr>
<th>Value creation logic</th>
<th>Value chain</th>
<th>Value shop</th>
<th>Value network</th>
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</thead>
<tbody>
<tr>
<td>Transformation of inputs into products</td>
<td>(Re)solving customer problems</td>
<td>Linking customers</td>
<td></td>
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</table>

Figure 2: Three different models based on the value creation logic. Stabell and Fjeldstad [4]

Stabell and Fjeldstad agree with the value chain model when it comes to traditional product production. They see the value shop as the model when it comes to services as medical care, consultancy and education. And they recommend the value network model when it comes to services like distribution, banking and warehouses.

Especially the value shop model may prove inspirational when working with strategy development within universities and education. The model is illustrated in figure 3 and, as with the value chain; it consists of the same four general support activities, but different primary activities. Aside from the differences in primary activities, the big difference is that Stabell and Fjeldstad see the educational service or competence development service as a continuous or circular process. When you have recognised the need for competence development, you plan and choose the way to get that knowledge, you learn and you test or practise your new knowledge and competences. Then you recognise the need for new knowledge – and the process starts again.

We combine this way of thinking with some of the principles in Kolb’s learning circle [5], the theories and models within the buying process [6] and the thinking within organisational learning [7] and strategic competence development [8]. Based on that we came up with a very simple, but useful model for strategic analysis of the value chain or value shop within lifelong learning.

This model is illustrated in figure 4 and consists of the same four support activities as in Porters model, but only contains three different primary activities. Naturally, you can divide both the primary and the support activities into more detailed parts. As both Kolb and Stabell & Fjeldstad, we also see the value chain for competence development as a continuing circular process.

The marked area / circle in figure 4 indicates that our college and most universities by tradition have most of their focus on the primary activity related to the individual learning process which take place at the university, both when it comes to ordinary education and continuing education. It is a way of thinking, where we decide what the individual student needs to know. All of our study programmes are developed by us, offered within the
university facilities, to a market with individual students who are expected to move to the campus, be seated in a class room with a minimum number of students and one lecturer, teaching a specific subject, at a specific time and duration decided by us. All our support activities are dedicated to this primary activity. We have buildings dedicated to classroom lecturing, we have all kinds of regulations and systems which support this, like semester plans, time scheduling systems, human resource management systems, salary systems, recruiting systems and so on.

How much effort do we put into the other primary and support activities in this value chain model, and in what direction shall we develop ourselves? That was the overall challenge for our strategy process.

3. THE STRATEGY PROCESS

With analysis and actions aimed at both the external environment and the internal resources we started our strategy process, which is still in progress. We collected different types of statistics, interviewed different companies and our customers, participated in conferences and did some experiments with new activities in other parts of our value chain model.

According to Drejer & Printz [9] managers and other key persons within any organisation will have a considerable influence on the vision and strategy of the organisation. Their judgement and values, together with their creativity, will lay the foundation for the strategy.

With this in mind, we chose to invite managers and internal and external key persons to participate in a workshop. The purpose was to identify both the internal and external key factors which will influence the conditions for continuing education and life-long learning the coming years in Denmark.

The process took place in our “Idea-workshop” and was supported by two professional facilitators and different types of information technology, white boards etc.

The process was divided into four main activities.

1. An overview of collected data on market trends.
2. A SWOT analysis.
3. Identification of internal and external factors which will influence the life-long learning business in Denmark now and in the future.
4. Development of different scenarios

This process and the results were documented in a small report. The workshop revealed an extensive list of factors that, according to these participants, will influence the life-long learning business in the future. Of these, the following key factors were identified:

- Traditional institution vs. Client oriented
- In-side out / Low market understanding vs. Out-side in / High market understanding
- Less strategic focus vs. High strategic focus
- Low level of innovation vs. High level of innovation
- Internal resource focus vs. Networking and alliances
- Keep everything in-house vs. Sub-supplier, communities

- High status of public edu. vs. Low status of public edu.
- Calm market, less competition vs. Dynamic market, high competition
- Individual based demand vs. Company based demand
- Education on individual basis vs. Strategic based education
- External education & training vs. Internal education & training
As this list of factors indicates, all factors point in one of two different directions. There is the very traditional public institution that only sees the market from an “in-side-out” point of view. At the other end of the scale there is the very client and market oriented institution with an “out-side-in” point of view. And of course you will find all types of combinations in between.

![Diagram showing the matrix of public education status and market competition]

Figure 6: Illustration of one of the scenario matrixes. Hansen [1]

Based on the identification of key factors, we used the “Matrix Approach” [10] and developed different scenario matrixes; one of them is shown in figure 6. Each quadrant represents a specific type of institution in a specific type of market.

The next step was to evaluate the different scenarios. This was done partly by intuition and partly with reference to Burton et al. [11] theories on organisational fits and misfits. In several of the scenarios there were too many misfits between the institutional strategy and the market situation (red quadrants 2 and 4).

The relevant and attractive scenarios (green quadrants 1 and 3) were selected and evaluated in relation to the value chain of competence development.

4. THE SCENARIOS

The relevant and attractive scenarios can be summarized in the following two descriptions:

- **Scenario A (First quadrant in the matrix in figure 6):**

  A dynamic market, where the strategic competence development within the companies sets the agenda. An educational institution or any other supplier, who can create competence development processes which develop the participants and the organisational behaviour in accordance with the vision, values, goals and strategy of the company, will be preferred.

  The educational supplier will be responsible for the whole process of the competence development within the company. Which means that, based on the strategy formulated by the company, the educational supplier will be involved in mapping the need for competence development within the company as well as planning, implementing and evaluating the learning activities.

  The formal and public life-long learning will not have high status and value, whereas the effect of the competence development within the company will be measured and appreciated.

  The organisation, which can deliver this service, needs to be highly market oriented, act as a consultant and, by virtue of networking and alliances, be able to deliver exactly the problem solving processes and educational services that are needed within all parts of the ”value chain” of competence development, at the right time and place.
**Scenario B (Third quadrant in the matrix in figure 6):**

A more stable market, where the main driving force is the need and the demand for developing the individual’s formal competencies. The focus will be at formality, level, brand and the community which you will become a part of.

A high level of individualism where it is the personal and individual career that matters. The status and value of public examination and accreditation is high.

The service will be concentrated in the learning and competence development part of the value chain, but related to the individual student’s context and career development.

The organisation, which can deliver this service, is a more traditional university, which is system oriented with high academic standards and accreditations. At the same time the university has the individual focus which is visible and practised both in the marketing and in the service the university deliver.

These short descriptions are of course very general and it is up to the management to decide which vision and strategy to follow. Illustrated in the value chain model, it could look something like figure 7.

<table>
<thead>
<tr>
<th>Individual level</th>
<th>Group level</th>
<th>Organisational level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure</strong></td>
<td><strong>Human Resource Management</strong></td>
<td><strong>Technology development</strong></td>
</tr>
<tr>
<td><strong>Procurement</strong></td>
<td><strong>Identification of competence needs</strong></td>
<td><strong>Learning and competence development</strong></td>
</tr>
<tr>
<td>Scenario B: Promotion of brand career possibilities</td>
<td>Scenario A: Consultancy concerning competence needs related to strategy. Developing and planning dedicated learning programs</td>
<td>Scenario B: Evaluation and control of performance and results. Continuous contact with company</td>
</tr>
<tr>
<td>Scenario B: Study and learning at university, teaching and supervising</td>
<td>Scenario A: Development of learning programs inside or outside the company</td>
<td>Scenario A: Focus on behavioural development and results in accordance with company strategy</td>
</tr>
<tr>
<td>Scenario B: Promotion of community or alumni</td>
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</tbody>
</table>

What we found was that it is possible to deliver services in both value chains, but you need to develop a strategy, and both primary and support activities and competencies in both chains. The chains are different and the service and value adding activities are different.

An important discussion is the discussion on the definition of value and what creates value for the customer/student. In a service like competence development the customer/company/student plays an important role in the definition of the “problem” which has to be solved. In that respect the communication between the service provider and the customer will have a crucial effect on the value, Pitta et al. [12].

### 6. CONCLUSIONS

The paper illustrates how the value chain model and value chain thinking can be used in the strategic development of the role of universities in the life-long learning business.

During interviews with individual students and companies combined with an internal workshop, two realistic scenarios were selected as a part of a strategy process within the college. One scenario focuses on the individual competence development, where the aim is the formal life-long learning with examination and accreditation. The second scenario focuses on a more dynamic market situation, where the agenda is set by the strategic and specific competence need in organisations.
The paper concludes that the two different aims also entail two different value chains, which require different competences at the university, in its value-adding activities – both in the primary activities and in the support activities.

References