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Action Alternatives and Solutions for a Market-Oriented Design of Web-Based Academic Offers

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ABSTRACT

In the context of the development on the educational market which is especially influenced by an increasing importance of knowledge in society, universities and professors stand the chance to serve existing customer segments better and to develop new business segments. Experiences made in traditional teaching as well as first findings in the field of electronic-based teaching via information and communication technologies (ICTs) facilitate a target group specific configuration of educational services and offers with academic contents according to the principle of "assembling on demand".

Educational contents and services can be distributed beyond the physical barriers of the university to globally acting target groups and customer segments. Acquired core competencies and approved marketable educational services can be transformed into profits and economic success. Despite these promising market conditions, the active participation of universities on the global education market is insufficient.

Despite these promising market conditions, the active participation of German universities on the global education market is insufficient. German public universities which enjoy a good reputation nationally and internationally in the academic community as well as in the economy, see their main duty as providing their students academic or scientific education. Thus a favourable positioning in national and international rankings in the field of education is desirable for the participating professors for reasons of image and reputation but the prospects of positioning in the profitable field of further education have only been used insufficiently so far. This is surprising in so far that professors at a university have a very good starting basis to collect experiences concerning the production of educational services in traditional as well as in e-learning-based teaching and learning scenarios through experiences made in their daily teaching and in research projects.

This article describes action alternatives especially but not exclusively for the German-speaking area which can put public universities in the position to be able to transfer their competencies to the further education market which is globalising and increasing in competition, and thus market their competencies. Starting points for a new positioning and the development of a profile in the educational sector are shown by the example of an e-learning co-operation among universities.

1 THE GLOBAL EDUCATION MARKET: CHANCES, PERSPECTIVES AND PRECONDITIONS OF PUBLIC UNIVERSITIES IN GERMANY

In the context of the formation of the knowledge society, the knowledge acquired in phases of further education is subject to increasingly massive and fast moving processes of change. [Kraemer et al., 2001]. The creation of awareness concerning the importance of knowledge leads to lifelong learning approaches which soften the boundaries between tertiary education and the following further education. Knowledge acquired according to the principle of building knowledge reserves, which does not lose in importance over the whole period of a working life, are a thing of the past [Scheer, 2000].

The integration of different ways for imparting knowledge into the individual learning process proceeds from schooling to advanced vocational training, from traditional seminars via tele-teaching to web-based courses and learning management systems.

Following these assumptions, knowledge is to be denominated as an economic good and the performance of knowledge building learning processes as a product resp. a service of specialized education providers. Education, and especially further education, is developing into a classic market where supply and demand meet and prices function as a market mechanism [Macharzina, 1999]. For universities, this means "that a student is not only a potential customer for the university for a period of five to six years but is interesting as a consumer of educational or further educational services practically life-long, for a period of 30 to 35 years" [Scheer, 2000, 182].

A global, market-oriented view of the customer segments of private demand (Education-to-Customer) and institutional demand (Education-to-Business) for education and further education seems advisable, if the universities do not want to cede segments of the changing education market, which correspond to their core competencies, to an increasing number of university-related or other commercial providers. German universities, especially compared to, for example, US-American universities, behave with restraint towards private as well as institutional demand on the growth market of further education [Hutzschenreuter, Enders 2002].

The reasons for this, among other things, lie in an only marginally defined market economic orientation of German universities and the lack of equivalent incentive systems and marketing opportunities. Knowledge about potential customer segments and their specific educational needs is scarcely existent and neither are there central contact points in the sense of a university-wide marketing organisation [Scheer, 2000]. Instead, bilateral negotiations between private as well as corporate customers of education and professorial providers of education shape the phase of designing offers.

Universities do not take a relevant position in these negotiations and the situation of the professors is inhibited by, for example, legal uncertainties concerning the marketing of learning contents. These restrictions lead to lengthy coordination and design processes among the participants. Transactions are prevented or at least hindered.

In addition to the creation of legally certain and acceptable incentive systems, German universities need to strategically reorient themselves towards taking the chances on the market. This means that educational offers orientate primarily towards expectations, needs, wants and quality concepts of the customer [Kotler, Bliemel, 1995, 66]. Universities must learn to identify their customers, to build knowledge about them and provide them with customer-oriented, individualised educational offers [Scheer, 2000]. This applies in equal measure to the process of education and to the following phases of in-firm further education. For this purpose, and with the help of flexible organisation structures, including the professorial level, as well as innovative technologies, strategies must be developed which implement intelligent solutions which are suitable for everyday use. The core competencies of the providers at university must be analysed and used efficiently by co-operations within the university, between universities resp. between universities and enterprises [O´Hara-Devereaux, Johansen, 1994]. A concentration on core competencies generally implies an increasing number of co-operations between providers to be able to produce services adequately and in line with the market [Hamel, Prahalad, 1995].

Support for the formulation of action alternatives can be deduced especially from approaches of the relationship marketing which will be attended to in the following chapter.

2 THE APPLICATION OF RELATIONSHIP MARKETING AS A SUCCESS FACTOR FOR THE CREATION OF MARKETABLE PRODUCTS FOR ACADEMIC EDUCATION

The main focus of the relationship marketing lies in the creation and implementation of customer relations which are difficult to imitate. In the case of a change of the provider or partner, high costs result from the respective change barriers.

Consequently, a success factor of academic education products is the integration of the customer into the whole value-added process. Knowledge of customer target groups as well as the interaction between market actors and the integration of customers are to the fore. The knowledge to be gained out of this puts education providers in the position to realise customer needs and structures of needs and to supply services for their precise satisfaction [Drucker, 1995]. This approach can be understood as "customizing the relationship" which is characterized by the existence of the following principles [Hildebrand, 1998]:

- The **Interaction** between provider and consumer of education presupposes mutual communication. Explicit mentioning of specific needs, suggestions, and desires as well as the "active listening" of the provider, which becomes apparent in the openness in the information behaviour towards the customer and encourages confidence, can be identified as critical for success. Directness and intensity of the interaction are of particular significance. As a special characteristic of institutional (Education-to-Business) relations the spectrum of the achievement of objectives of joint activities is relevant for decisions.
- The **Integration** of the customer means his or her inclusion in the whole development process of services on the basis of the described interaction between the partners. This process comprehends the interaction along the value-added process from product planning, product development, and production to the technological linking of the value-adding processes of the participants. This behaviour broadens the value-added chain beyond the bounds of the providers. Thus we must speak of a value-added network. The knowledge gain from the mutual information exchange puts providers of education in the position to realize customer needs and structures of needs and to supply services for their precise satisfaction [Grohmann, Martin, 2002]. If this approach is transferred to the design of academic education measures, consumers of education become long-term cooperation partners of the universities regarding design, development, testing and promotion of the quality of education products.
- The **Individualization** of the services constitutes the core of relationship marketing. In the context of the design of the education offers considered, this approach results in the design of target group oriented individual education offers. In the long run this results in a change of the quality of the education offers from a turning away from the mass product education via mass customisation to a complete tailoring of education offers according to the desires of potential target groups.
- In the context of this article, **Selection** means that a complete individualization of the design of education offers cannot be justified from efficiency viewpoints. Moreover, do not all customer segments have the same profitability. Rather, it is decisive to identify target customer segments promising in the long run and to provide them with integrated education offers. Thusly gained criteria for efficiency must flow into the individualization of the design of the services.

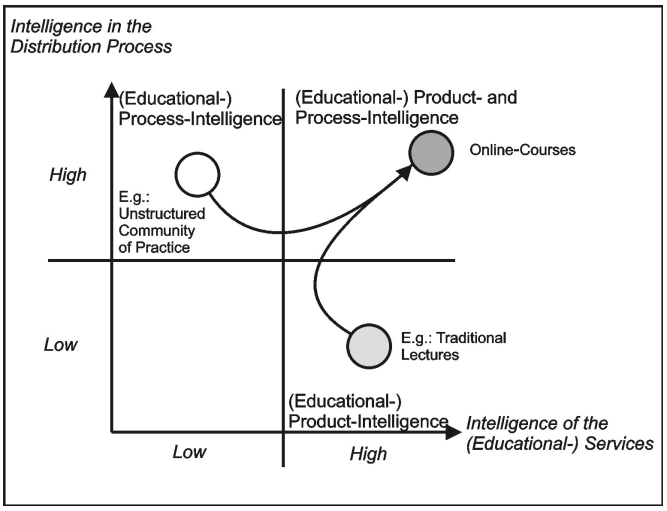
To be able to accommodate the claims of different target group segments more precisely an economically sustainable middle course between a mass and an individual appeal must be found. Starting points are the identification of segment comprehensive demands on the supply of education and further education services. On the part of the education consumers, demands on the taking of the "good education" for a consideration mainly consist in the securing of the up-to-dateness of contents, individuality of learning relations, just-in-time provision of learning contents, richness of method knowledge, and the provision of integrated educational offers and programmes [Bentlage, Hummel, 2001]. A differentiated view regarding the different potentials of the respective target segments can lead to more differentiated offers in these fields. It seems advisable to view the learning process from schooling via university education to in-firm further education as a whole.

3 POSSIBLE COURSES OF ACTION FOR PUBLIC UNIVERSITIES

For universities, research projects in the field of web-based education are a starting point to gain experience with the planning and realisation of corresponding educational offers. Here, the identification of potential customers, the satisfaction of their needs with the help of diversified educational products as well as intelligent organizational structures can be tested without being under the pressure of acquiring customers or developing suitable products to meet the demand. The danger of the so-called short time horizon, the misestimation in dealing with problems which are rather being solved according to a short-term effectiveness instead of an analysis of future conditions can be counteracted [Porter, 1997].

The classification of intelligently structured teaching organisations is illustrated by means of the displayed adaptation of the knowledge

Fig. 1: Portfolio: Intelligence in the Distribution Process and Intelligence of the (Educational) Services [according to Porter/ Millar, 1985].



intensity portfolio according to Porter, Millar [1985]. Analogous to the original procedure, the virtualisation of the academic way of imparting knowledge has the intention of contributing to a market-oriented design of educational offers and of creating new business segments and profits. The classification is done by estimating the intelligence in the chosen distribution channel as well as the intelligence of the educational service. In this context, innovative systems and educational products are considered to be intelligent.

As the figure shows, intelligence regarding the distribution process is low in the original academic process of imparting knowledge although the services, and thus the intelligence in the educational service in general, have to be rated high. The reason for this is that the process of imparting high-quality academic contents through classic seminars or lectures is relatively inflexible because of fixed times and places. Out of the passivity of the service recipients, which is characteristic for lectures, the design of contents presents itself as a transference of the teacher's perspective to the learners (in/out view) [Winand, Kortzfleisch, Heller, 1998]. The interest cluster resp. the freedom of choice only take place in a corridor which is limited by the available course offers in the course of studies of the home university as well as by the resources available (e.g. lecture halls). Restrictions on capacities and supply are counterproductive to the flexibility favoured on part of the learners. Interaction points for a coordination of the learners' and teachers' demands are used only sporadically. The low intelligence in the performance of the "unstructured communities of practice" in the sense of a web-community is determined by the unstructured presentation of content and the lack of editorial intervention to avoid information redundancies and remove out-dated information. This can result in frustration, high costs for searching, and in an information overload.

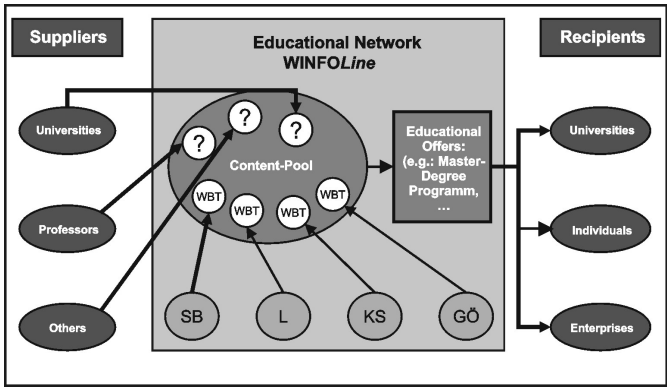
A web-based medium for the distribution of information, however, facilitates an on-demand access independent of place and time to solve problems at the time they appear [O'Hara-Devereaux, Johansen, 1994]. Compared with classic lectures, the use of electronic media holds the perspective of a stronger overlapping of phases of working and learning which is in line with the market [Euler, 1992]. Web-based studies integrate the complementary strong points of both systems into an all-inclusive offer while largely avoiding specific weaknesses. The high-quality contents are delivered to the customer on demand via innovative infrastructures.

The value added for the consumer lies in the up-to dateness and richness of the contents, and the freedom to choose from a wide variety of courses and accompanying services. This flexibility reaches from the mass customization of educational offers, e.g. in the context of master's studies, to the configuration of educational offers for in-firm further education centred on needs. When viewed as a whole, the virtualization of academic education processes presents itself as business process (re)engineering for universities [Hammer, Champy, 1993]. The reorientation and repositioning through elements of e-learning can be denoted as learning process (reengineering).

Because of the connection of the academic background of universities and the existing possibility of certification, universities have the opportunity to position themselves on the e-learning education market as Learning Service Providers (LSPs). What LSPs offer, covers several areas which can be provided individually or as a package, depending on the target consumer segments (private or institutional customers).

- **Application Service Providing**: The provision of professional learning management systems (LMS) and undertaking the technical operation. At this point, partnerships with commercial providers seem advisable.
- **Content Providing**: The provision of (academic) learning contents. In most cases employees of the university, e.g. professors, will have to take over the providing of content because they are the ones who have to work the content out first.
- **Content Service Providing**: The provision of services for the organisational and editorial handling of learning processes, their handling as regards content as well as their certification.

Fig. 2: Structure of the Educational Network WINFOLine [Bohl et al., 2002]



- **Learning Service Administration**: The provision of administrative services for the operation of the learning management system. These are not prime tasks of traditional universities.

In the case of a complete delivery of all services we must speak of full-learning-service provision. Cooperation's with partners from the academic as well as the business sphere are thinkable for all areas and to be aspired. At this point, concentration on the core competence of each supplier of services seems indispensable.

4 CASE STUDY "EDUCATIONAL NETWORK WINFOLINE"

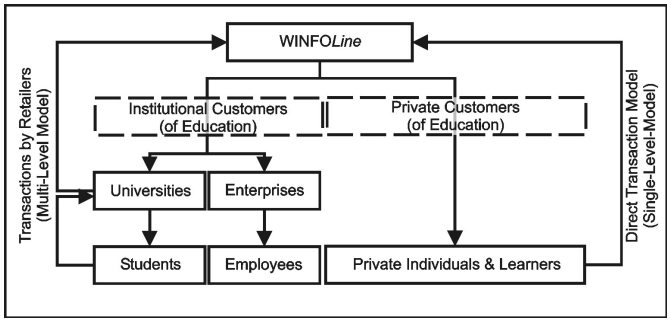
The educational network WINFO*Line* (http://www.winfoline.de) serves as an example for an approach to a solution for the design, marketing, and distribution of academic, e-learning based educational offers in the field of information systems which will be presented in the following.

A content and educational product pool forms the centre of the educational network. This pool contains web-compatible educational offers of different providers. Their modular structure in combination with consumer-specific determined support services facilitates the configuration of various educational offers.

Consumers can have an individual educational offer configured for them from the services offered to integrate it into their existing educational organisation and educational activities or, as a retailer, to transfer it on to further target groups (employees, students).

The educational network acts as a broker in the sense of a cybermediary and coordinates the levels of providers and consumer. The role of cybermediaries "...has been to select among various choices

*Fig. 3: The Transaction Model of the Educational Network WINFO*Line



in the world. They act as *gatekeepers*, filtering and analyzing choices in order to help users reach a specific outcome" [Bollier, 1996]. Models for the settling of accounts, financing, exchange, and organisation flank the service spectrum. These services contribute to the creation of transaction-oriented general frameworks for the exchange of educational services among the partners.

An important profit potential is the increase in the number of possibilities to choose partners who obtain services. The following are counted among the defined consumer groups:

- **Universities** which do not offer a course of studies in information systems but build it with the help of WINFO*Line* services and thus want to broaden their course portfolio horizontally. Universities which already offer courses of studies in the field of information systems and want to extend their offer with the help of WINFO*Line* practise vertical extension.
- **Private individuals** who want to continue their academic education in the field of information systems and who get the certifiable educational contents from the educational network WINFO*Line*.
- **Private individuals** who want to continue their academic education in the field of business informatics and who get the certifiable educational contents from the educational network WINFO*Line*.
- **Enterprises** which employ the contents of information systems in training and further education and procure these educational services externally due to economic externalisation and outsourcing decisions.
- **Enterprises** which market the contents of information systems in extended scenarios to end customers and procure parts of their services externally.

As can be seen, the services of WINFO*Line* are directed at a multitude of consumers to satisfy their specific needs for education. Corresponding to the structure of a network, the providers of services are recruited from different fields [Bohl et al., 2002].

The virtuality of the WINFO*Line* educational offers serves as a unique selling proposition compared to other approaches in academic education. The decentralised sources of supply for the educational offers are a result of the virtualisation and cause an increase in efficiency of the whole educational process. Also, discontinuously starting qualification measures can be carried out and insufficient qualification offers can be adjusted [Kortzfleisch, 1998]. This means that the resource problem of the traditional academic education system can be counteracted and, due to their modularity, the offers can be marketed further.

Further profit results from a consolidation of chair-specific competencies due to WINFO*Line*'s underlying idea of a network. The consumers of educational offers benefit from the various competencies of renowned professors who are affiliated with the educational network (best-of-peer). This contributes positively to the educational services' profiles and is a distinguishing feature in the market. Furthermore, the educational network realises a dynamic offer of courses of studies, which, on the one hand, contributes to up-to-dateness and quality assurance of teaching, and, on the other hand, offers consumers a broad spectrum of fundamental as well as more sophisticated courses.

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