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Development, Validation and Application
of a Model**

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Reputation in Higher Education: Development, Validation and Application of a Model

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Abstract

The purpose of this paper is to develop a reputation model for higher education programmes, provide empirical evidence for the model and illustrate its application by using Copenhagen Business School (CBS) as the recurrent case. The developed model is a cause-and-effect model linking image to reputation via rational and emotional evaluations as well as relevant corporate identity determinants. As reputation, image and identity are very complex concepts, it is important to determine which of the many elements should be included in the model. This paper discusses why a given aspect is important for higher education reputation and which relations exist between the included determinants from a theoretical perspective. It is demonstrated how the model and measurement system may be a useful management tool for the improvement of the reputation of a higher education. In this way, the model can help leaders of higher education institutions to set strategic directions and support their decisions in an effort to create even better study programmes with a better reputation. Finally, managerial implications and directions for future research are discussed.

Keywords: Reputation, image, corporate identity, higher education, structural equation modelling.

1. Introduction

1.1. Challenges for higher education institutions

The international knowledge society has challenged modern higher education institutions quite extensively in later years.

Higher education institutions should look at the employers' demands and expectations of future employees. Today, the employers demand that the competencies achieved by the graduates during their education match the companies' competency needs. In other words, the educations at higher education institutions should be developed to optimally stimulate the candidates' abilities to perform in the labour market. It is worth noting that this labour market is characterised by many different languages and cultures.

There is a need for 'global candidates', which is very pronounced in a country such as Denmark. This need is emphasised in a survey carried out by the Confederation of Danish Industries among 100 of its member companies; the survey showed that companies were looking for "employees with language and intercultural competencies and a technological understanding, capable of cooperating in global company environments". On this background, the Confederation of Danish Industries (2002, p. 7) recommended that educations incorporate a stronger global perspective and content.

The Association of Presidents of Danish Higher Education Institutions (2004, p. 7) also emphasizes the importance of this and points out that it is natural that Danish higher education institutions should educate labour for the Danish market, but as the market is increasingly being

globalised, there is a need for candidates with international-orientated competencies. As the Confederation of Danish Industries (2002, p. 10) highlights, there is a tendency towards "meta-national companies with global business processes, where the company, regardless of the number of subsidiaries, is characterised by a company culture and organisation that does not consider country borders".

The Confederation of Danish Industries' (2002, p. 3) survey also shows that there is a great need for "graduates within economics and business administration to practice their practical competencies more, that is, their ability to transfer theoretical knowledge to concrete action in the company" as well as for the graduates to be "capable of learning, managing and distributing knowledge within networks in the surrounding world".

These new competency needs require the study programmes to undergo innovation and product development, so new study programmes and learning types can be developed and existing study programmes continuously improved.

To be innovative today requires higher education institutions to be more open and enter into closer and more committed cooperation on research and teaching with the business community and others. This has resulted in the establishment of so-called employer panels, which are meant to provide advice on the development of the labour market's competency needs. In these panels, users, employers and graduates are given the opportunity of providing input - for example when new research and educations are being drafted. 'Innovation through a strengthened dialogue with

the surrounding world will clarify the educations' competency profile and the employment options for the students'. Only in this way will the higher education institutions succeed in educating the employees the companies need in future.

Higher education institutions are faced with a growing international education market that is increasingly being commercialised. The higher education institutions should offer educations of high quality that can measure up to the best international educations. This is a great challenge for the higher education institutions, which means that the teaching and research they offer should be so unique that students and researchers are willing to travel far to be inspired by these environments. The increased competition between the higher education institutions (not just the domestic competition in Denmark, but to an equal degree the competition between Danish and foreign higher education institutions) will result in the caution that higher education institutions should not take it for granted that the Danish students will automatically choose to study at Danish higher education institutions. In the last ten years, Danish students have become much more mobile, and many students leave to study for a shorter or longer period at a foreign institution. Thus, higher education institutions in Denmark have a common responsibility to ensure that, in the future, Denmark will also be able to maintain and attract the best students in fierce competition with the best higher education institutions abroad.

In recent years, higher education institutions have experienced a growing number of students with increasingly greater demands of not just the quality of teaching, but also of the international study environment to provide them with a competency profile to ensure interesting employment options after they graduate. The students demand quality in their education, which among other

things means that they perceive education as meaningful, developing, engaging and interesting and that they acquire knowledge and abilities that obviously qualify them for relevant jobs in the business community and provides career opportunities.

The higher education institutions are also facing increasing demands from stakeholders such as politicians, the government, partners, local society and others. The stakeholders demand that the universities of today "supply relevant services for resources (value for money), supply more relevant services for additional resources (more value for more money), and are effective, productive and responsible" (statement by Hans Peter Jensen, the President of Technical University of Denmark, at a Nordic conference about 'universities in a changing world').

Education is an ongoing process and a case of lifelong learning. Young people are no longer the only ones to be educated. Today part time-, open-, further-, e-learning educations etc. are available. The challenge for the higher education institutions is to offer more and better further educations to the business community, so they become capable of "attracting and maintaining competent education applicants from Denmark as well as from abroad" (the Association of Presidents of Danish Higher Education Institutions, 2004). As the Association of Presidents of Danish Higher Education Institutions writes (2004, p. 6), the "selection of further educations are being increasingly globalised and commercialised. Many different offers compete for the education applicants in an increasingly globalised education market".

All of these new challenges, which the higher education institutions have been facing in later years, have increased the competition for the best Danish and foreign students, for the best partnerships with the business community and foreign higher education institutions, for getting politicians' good graces, for external funding for research and teaching activities etc. And this trend is expected to continue.

1.2. Reputation in higher education

With these challenges and increasing competition, the reputation of the institution and its study programmes is essential for a higher education institution. A Danish higher education institution enjoying a good reputation abroad will have a better chance of attracting the most talented foreign students, thus demonstrating to Danish students that the educational programmes at the Danish higher education institution is of a high quality, internationally oriented, acknowledged and appreciated outside Denmark (the Association of Presidents of Danish Higher Education Institutions, 2004, p. 9). Similarly, a good reputation among employers will result in the higher education institution being positively distinguished from the other higher education institutions or knowledge institutions. This can lead to employers increasingly having confidence in and respect for the higher education institution and its study programmes; and in them ultimately choosing to recruit candidates from this higher education institution rather than from other institutions.

The reputation of a higher education institution and its study programmes will therefore have far-reaching consequences for all of its stakeholders and "raise many strategic and organisational questions, which reach far beyond the discussion of effective market communication and a seductive identity" (statement made by Professor Maiken Schultz in the leading Danish business

newspaper *Børsen*, 30 January 2004, p. 13). A good reputation will be significant for a higher education institution's success in future. Thus, in the following, we will be developing and subsequently empirically validating as well as demonstrating the application of a higher education reputation model using a Danish case.

The model is general in its structure and can be used on any study programme at a given higher education institution. In this paper, we use the study programme MSc in Economics and Business Administration at the Copenhagen Business School (CBS), Denmark as our example. As CBS is used as case both in the model development and the empirical study, we will briefly present the institution below.

1.3. About Copenhagen Business School

Copenhagen Business School (CBS) has more than 15,000 students and an annual intake of around 1,000 exchange students. This number of students as well as around 400 full time researchers and 500 administrative employees makes CBS the largest business school in Northern Europe (please visit www.cbs.dk for more information).

Strategically, CBS primarily focuses on three target areas:

- *International orientation.* CBS regards itself as a European university and strives to be among the top business schools in Europe. Research and teaching is structured in line with international standards, and CBS measures its level of quality in comparison with the top foreign universities.
- *Partnerships with the business community.* Co-operation with Danish and foreign business communities is a cornerstone in CBS' strategy. CBS develops study programmes that meet

the needs of business executives and employees for lifelong learning. CBS also participates in application-orientated research collaboration in connection with internationally oriented basic research. This includes joint research projects, the CBS Partnership Programme and an increasing number of new business research centres that perform research in collaboration with enterprises and organisations.

- *The learning university.* CBS seeks to provide a learning environment that focuses on learning and individualised skills development rather than teaching and mass education. At CBS, students are actively involved in the learning process, and new project and problem-based teaching methods are developed. For staff, CBS places emphasis on qualities such as innovative capability, flexibility, and the ability to gather and structure experience in the organisation.

CBS offers a range of study programmes, including 11 Bachelor programmes, 10 Master programmes, 9 Executive Master programmes and PhD programmes. In addition, CBS runs a series of study programmes through Open University as well as an International Summer University programme. CBS offers Denmark's most comprehensive range of university degrees in economics and business administration and modern business languages.

In the empirical study in section 4, we focus on one of the master programmes, namely the MSc in Economics and Business Administration. This programme is CBS' largest study programme offering 15 different specialisations in 2004, seven of which are taught in English.

2. Traditional reputation approaches and models

An important prerequisite for developing a higher education reputation model is to understand the contents of the applied theoretical terms. Unless we have a clear understanding of the terms, we cannot 'translate' them to empirically measurable units. Such an operationalisation requires a breaking down of the theoretical terms into their different components and mutual relations to obtain better insight into which factors are the most relevant compared to a higher education problem and therefore should be incorporated into our model.

In this paper, we will especially focus on terms such as corporate identity, corporate image and corporate reputation and their mutual linkages. We will be taking as our point of departure the general literature within the area and apply the relevant parts to a higher education context.

A corporate brand's reputation is created based on the organisation – i.e. its corporate identity. A corporate brand is built in the minds of external stakeholders such as customers, shareholders, the government, local communities etc., and the experience of a corporate brand is created on the basis of communication from and with the company. Here communication is conceived in very broad terms. Employees represent a significant factor for the external stakeholders' perception of the company as a brand – they should link the company and the external environment (Harris & de Chernatony, 2001). This point of view is also supported by van Rekom (1997, p. 412) who argues for a close connection between a company's corporate identity, corporate strategy and corporate image: "In the long term, management can influence the organization's identity, and,

depending on management's chosen corporate strategy, can realize an improved or repositioned corporate image".

In the next section, we will thus be discussing the terms corporate image and corporate reputation and the difference between them. In the following section, we will then be discussing the implication of the term corporate identity. The knowledge gained from the theoretical discussion will then be used to develop the frame of reference for the higher education reputation model, together with the knowledge we gain from a discussion of existing models and frames of reference in the area.

Many authors (e.g. Melewar & Jenkins, 2002; Balmer, 1995; Balmer & Greyser, 2003; Olins, 2002; Einwiller & Will, 2002; Harris & de Chernatony, 2001; Christensen & Askegaard, 2001; Ind, 1998; van Riel, 1992; van Riel et al., 1998) have in later years written comprehensive reviews of the literature in areas where differences and similarities between conceptual definitions have been discussed and put into systems. However, in spite of the growing interest in understanding and applying terms such as corporate identity, corporate image and corporate reputation, the literature does not yet present a consensus about the definition and measurement of the terms or their mutual influence.

2.1. Corporate image and corporate reputation

Gotsi & Wilson (2001) have studied the terms corporate image and corporate reputation and found two schools of thought: the analogous and the differentiated school; the analogue school being the oldest and the differentiated school being the present.

With the analogue school of thought Kennedy (1977), Boulding (1973), Abratt (1989), Dowling (1986), Ind (1997), Alvesson (1998) and others assume that corporate reputation = corporate image. Basically, image is perceived as synonymous with reputation, i.e. as identical or interchangeable terms. Several of the authors do not address whether there is a connection between the terms and others even leave out corporate reputation entirely from their terminology. Another aspect that characterises these authors is that they feel that corporate reputation takes a long time to establish and that it is an aggregated or accumulated experience. Kennedy (1977, p. 124), for example, says that “an image, whether of a product or company, takes many years to cultivate”, and Ind (1997, p. 21) defines a corporate image as “the picture that an audience has of an organization through the accumulation of all received messages”.

The other school, the differentiated school of thought, maintains that corporate image and corporate reputation are two independent terms. This school is divided into three views depending on how the relation between the two terms is perceived.

Firstly, authors such as Brown & Cox (1997), Brown & Dacin (1997), Grunig (1993) and O’Sullivan (1983) perceive corporate image and corporate reputation as different, but they do not address the relation between the two terms. They often emphasise negative associations in connection with image (Balmer, 1995) and the fact that image can have a manipulative effect. In line with this, Bernstein (1984) emphasises that corporate image is manufactured and hence is not a true reflection of the company’s reality, and O’Sullivan (1983) emphasises that the term implies a degree of falseness, since reality rarely matches the image. This negative perception of the image term has led to a sole focus on reputation and reputation management.

Secondly, authors such as Mason (1993) and Barich & Kotler (1991) believe that the relation is Corporate Reputation => Corporate Image (Gotsi & Wilson, 2001, p. 27). For example, Barich & Kotler (1991) believe that image represents the sum of beliefs, attitudes and impressions that a person or group has of an object and that corporate reputation as a variable, together with the level of public awareness, determines a firm's corporate image.

Finally, there is a third group of authors who work with a relation of the type corporate image => corporate reputation. Thus, these authors assume that image influences reputation. Balmer (1996), Bromley (1993) and Gray & Balmer (1998) agree with Fombrun (1996, p. 72), who formulates the relation as follows: "corporate reputation is a snapshot that reconciles the multiple images of a company held by all its constituencies". The implication of this definition is that corporate reputation is the accumulation of corporate images over time.

Markwick & Fill (1997) formulate the difference between corporate image and corporate reputation in the following way: "reputation is a reflection of the historical, accumulated impacts of previously observed identity cues and possible transactional experiences. Consequently, reputations are more durable than images and may represent a relatively consistent store of goodwill and support in favourable cases (positive reputations) or distrust and avoidance in adverse situations (negative reputations). Images may be altered relatively quickly as a result of organizational changes or communication programmes, whereas reputation requires nurturing through time and image consistency. By differentiating these two terms, managers are encouraged to consider the continuity of images and the necessity to build a store of positive reputation as a prerequisite for successful organization development".

In accordance with Markwick & Fill (1997), Formbrun (1996), Balmer(1996) etc. and following the differentiated school of thought, we also believe that image influences reputation and that corporate reputation is the accumulation of corporate image over time, which may thus be seen as the essence of corporate image in the long term. A strong and positive corporate image will all other things being equal lead to a positive corporate reputation, which will ultimately have a positive effect on the company's performance.

2.2. Corporate identity

Topollian (1984), Olins (1990) and Markwick & Fill (1997) define corporate identity as the organisation's presentation of itself to its various stakeholders and the means by which it distinguishes itself from all other organisations.

This definition contains two central elements. Firstly, a company's identity should be used to communicate to the world who you are. This central element of corporate identity is further supported by Alessandri (2001, p. 174) who, in his reviews of many different authors, finds that "practitioners and scholars seem to agree that corporate identity is very closely related to how a firm presents itself to the public". Secondly, a company's corporate identity is used as a means of differentiating oneself from others in the market.

Olins (1990) elaborates on the definition in the following way: "Corporate Identity is the articulation of what the organisation is, what it does, and how it does it and is linked to the way an organisation goes about its business and the strategies it adopts".

Throughout the years, many authors have studied which elements represent corporate identity; the table below sums a number of significant perceptions.

Table 1. Corporate identity elements

Birkigt & Stadler (1986)	Abratt (1989)	Schmidt (1995)	Olins (1995)	Balmer & Soenen (1999)	Hatch & Schultz (2001)
<ul style="list-style-type: none"> ▪ Behaviour ▪ Communication ▪ Symbols 	<ul style="list-style-type: none"> ▪ Organisation ▪ Communication objectives ▪ Functional communication objectives ▪ Development of structures and systems 	<ul style="list-style-type: none"> ▪ Behaviour ▪ Communication ▪ Corporate culture ▪ Market conditions ▪ Strategies ▪ Products and services ▪ Design 	<ul style="list-style-type: none"> ▪ Behaviour ▪ Communication ▪ Products and services ▪ Physical environment 	<ul style="list-style-type: none"> ▪ Soul ▪ Mind ▪ Voice 	<ul style="list-style-type: none"> ▪ Vision ▪ Culture ▪ Image

If Table 1 is applied to higher education, we feel that the following elements should be incorporated as drivers for a higher education reputation:

- Behaviour in the form of people skills and competencies,
- Strategy as corporate strategy and study board strategy
- Communication in the form of marketing communication, corporate communication and PR
- Products and services as reflected in the graduates and their competencies
- Corporate culture in the form of corporate values

3. A conceptual reputation model for higher education

The study programme whose reputation will be modelled is perceived as a sub-brand with the higher education institution as the master-brand according to Aaker & Joachimsthaler's (2000) brand relationship spectrum, which is related to the driver role that brands play. Driver role means the degree to which a brand drives the choice decision. For sub-brands the master-brand shares the driver role with sub-brands, either as co-drivers or with the master-brand as the primary driver (Aaker & Joachimsthaler, 2000, pp. 9-10; Aaker, 2004, pp. 44-48). For the employers of graduates from Copenhagen Business School (CBS), the reputation of the MSc programme is determined both by the study programme as sub-brand and the master-brand CBS. In CBS' communication and brand building of study programmes, the phrasing used is the CBS MSc programme or the MSc programme at CBS.

The link between a sub-brand and its master-brand is stronger than the link between an endorsed brand and its endorser (Aaker & Joachimsthaler, 2000, p. 14). Because of this closeness, the associations regarding the sub-brand may influence the master-brand, and vice versa, which may present both a risk and an opportunity.

In this connection, the master-brand is a corporate brand embodied by the higher education institution. According to Franzen & Bouwman (2001, pp. 194-195) “the associations that people make with the company behind the brand will be different from those that people make towards a product-related brand or sub-brand. *Corporate associations* can be divided into six categories:

1. General company characteristics: nationality, internationality, familiarity, history

2. Capacities of the company: competence, scope of activities, innovation potential, leadership
3. Economic characteristics: turnover, financial strength and profitability, general success
4. Product-related company associations: product credibility, product quality, design, service orientation
5. Cultural aspects of the company: Values, ethics, competitiveness, reliability, dynamics, progressiveness, environmental responsibility, social responsibility, attitude and behaviour towards personnel
6. People and relationships: leaders, founders, moments of truth, contact with personnel, customer orientation, responsiveness”

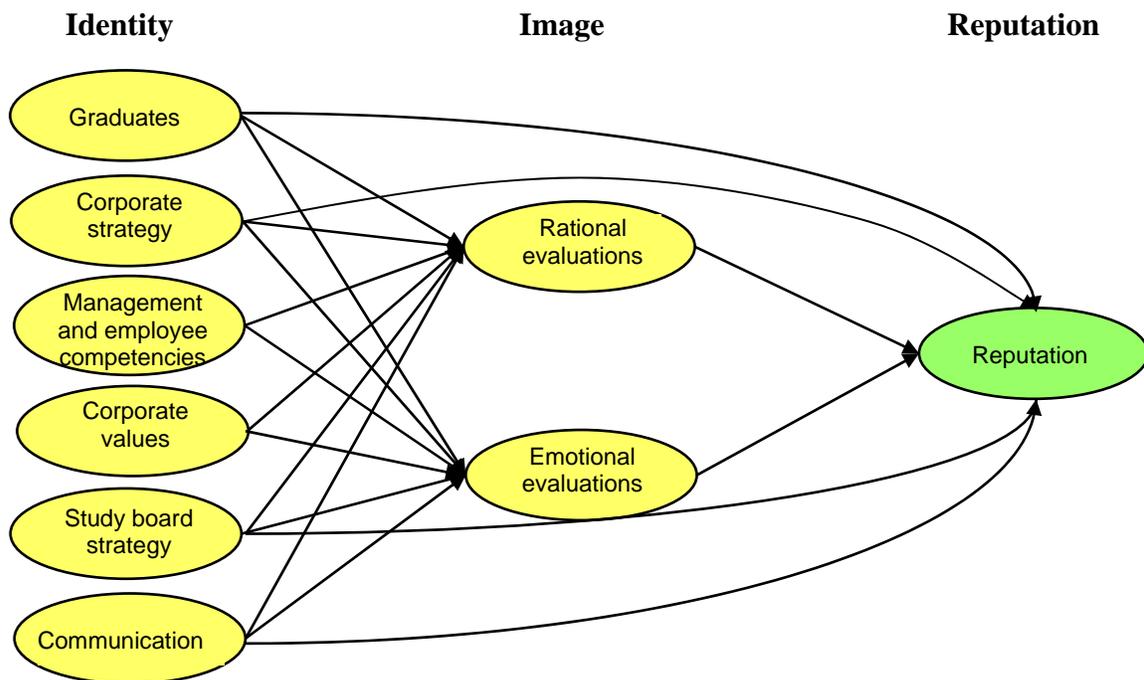
The image transfer from the master-brand (Copenhagen Business School) to the sub-brand (the MSc programme) is important and therefore several of Franzen & Bouwman’s (2001, pp. 194-195) six categories of corporate associations will be relevant to include in the higher education reputation model, which will appear from Figure 1 and the ensuing discussion.

Figure 1 shows the conceptual reputation model for higher education institutions formulated as a causal model. It is specified as a structural equation model with nine latent variables, each measured by a set of indicators, observed by survey questions to employers. The development of the model is based on relevant theories and empirical surveys as well as practical experience with the measurement of corporate reputation, corporate image, corporate identity, branding, brand performance and brand equity. The main inspiration comes from the Fombrun Reputation Quotient (Fombrun et al. 2000; Fombrun, 2001; Gardberg & Fombrun, 2002; Fombrun & van Riel, 2003, pp. 52ff), the Reputation Index (Cravens et al., 2003), the Reputation Excellence

Index model (Eskildsen et al., 2004), Melewar & Jenkins' (2002) corporate identity model, Olins' (1998) and Schmidt's (1995) corporate identity elements, Franzen & Bouwman's (2001, pp. 194-195) six categories of corporate associations, Keller's (2001a; 2001b; 2003) Customer-Based Brand Equity Pyramid and the present authors' work with brand equity modelling (Martensen & Grønholdt, 2003, 2004a, 2004b).

The arrows in the model show the hypothesized relationships between the variables. These relationships are supported by theoretical and empirical studies.

Figure 1: The higher education reputation model



The final response variable, reputation, is first and foremost a function of the employers' general image of the study programme and its graduates. With the employers, this image is reflected in a rational as well as emotional evaluation. Reputation is also a function of a series of mental associations with the employers, which are linked to a number of determinants for the organisation's identity: the education itself and the graduates competencies developed; the communication from the institution; and the strategy related to the higher education institution in general as well as for the study programme specifically. As mentioned earlier, the identity is determined by the way in which the organisation consistently, credibly and coherently presents itself to the employers and the means by which it distinguishes itself from all other organisations.

The rational and emotional image evaluations are influenced by the employers' mental associations that are linked to the following mix of corporate identity determinants, of which the first four determinants are the same as for reputation: education, corporate strategy and the study programme strategy, communication, management and employees' competencies and corporate values. As can be seen, several of these corporate identity elements are inspired by Olins' (1998) and Schmidt's (1995) corporate identity elements and Franzen & Bouwman's (2001, pp. 194-195) six categories of corporate associations.

In accordance with the model in Figure 1, the object for an organisation is to manage the corporate identity determinants in the left side of the model so that it can obtain a favourable corporate image - of a rational and emotional nature - among the employers of the institutions graduates. In time, this should result in a favourable reputation. It is hypothesized that the better the reputation among employers is, the greater the probability of the employers preferring graduates from the institution in question will be.

In the following, we will be arguing for the chosen identity determinants that appear in the left side of the model.

3.1. The model's identity determinants

One of the primary objectives of a higher education institution is to educate graduates who possess competencies that are relevant and in demand by the employers, so they can quickly benefit from them on the job. *The graduates* can thus be said to be the core offering of a higher education institution – and may be perceived as the product, if compared to traditional companies. We are interested in the educations' reputation among employers, and in this connection the product, the graduates and their competencies, play a natural role.

However, to produce graduates of value to the employers, *competent employees* are needed on a management as well as other levels in the organisation. Here, *employees* refer to the faculty as well as administrative staff.

The organisation's strategies are formulated based on the management's visions, the institution's mission, core issues and brand idea. We believe that the corporate strategy should be based on the corporate brand idea, including the fact that the objective of a higher education institution is to produce graduates that live up to employers' needs and demands.

We live in a society where the markets are often characterised by unpredictability, complexity, ambiguity, speed and change, which requires employees to be able to multi-task, be generically

competent as well as technologically competent, as well as be able to handle self-management, individuality and creativity. This makes great demands of the higher education institutions in their continuous development of the study programmes.

It is no longer enough for a leader of a higher education institution to be good at formulating visions, setting goals, developing strategies, forming partnerships, investing in new and better rooms and facilities. In future, the best education institutions will be distinguished by the best leaders, who are capable of mobilising the employees' creative abilities and individual talents and transferring this into innovation and performances that the students and employers experience as enriching and value creating, and will ultimately make the employers prefer graduates from their institution rather than others. Or it will make the graduates return to the education institution at a later stage to further educate themselves, participate in seminars, conferences and other arrangements, or become associated as teachers. For this reason, management must be good at handling the challenges they face and at seeing new possibilities and creating growth.

In this case, the model is formulated for the purpose of examining the reputation of a study programme and for this reason it is essential to include *the specific strategies for the study programme*, for which the study board is responsible, in addition to the corporate strategies. Strategies at this level should focus on two things specifically, i.e., how to give the programme a clear profile to create a strong brand and how to differentiate the institution's study programme compared to other institutions' competing study programmes to maintain the strong brand over time and perhaps create possibilities for growth.

Stuart (1998, pp. 357-373) perceives corporate personality as “the heart of the organisation embodying the corporate mission, corporate philosophy and core values of the company”. *Corporate values* are thus an expression of “what the organisation actually is” (Markwick & Fill; 1997) and the basis upon which the company builds its strategies, and which should definitely be communicated to the surrounding world via the management and employees. For CBS, the most important corporate values may be expressed as ‘international orientation’, ‘partnership with the business community’ and ‘the learning university’ (cf. section 1.3).

Communication covers three areas, i.e. the institution's marketing communication, corporate communication (from institution, management and employees) as well as general public relations via publicity in the media (Pelsmacker et al., 2004, pp. 8-12). All of these different types of communication are employed to translate the organisation’s identity to a corporate image held by employers and to ultimately create a reputation.

Further specified, the model is a structural equation model with nine latent variables, each measured by a set of indicators, observed by survey questions to employers. In the following, we will discuss the concepts of four of the nine latent variables and in this connection, among other things, emphasise the areas that should be included more or less as they are under each latent variable and indicate possible survey questions.

3.2. Graduates

For companies offering products (goods and/or services), the quality of these products in itself will be an important factor in the building of stakeholder attitudes. In principle, a higher education institution may be perceived as a service company with no physical product. The product is

intangible and reflects factors such as the graduates' academic and social competencies, whether the companies will be able to benefit from them when they are employed and whether they quickly become profitable after employment.

The product in a higher education context is thus created as a result of interaction between the institution's employees and the students, whether in a teaching situation, supervision situation, contact with the administrative staff etc. In the present higher education context, the students' competencies will thus have significant influence on the employers' perception of CBS and MSc programmes at CBS, when it comes to both image and reputation.

The higher education institution's image and reputation with employers in general and its study programmes specifically is thus a question of correspondence between the employers' expectations to the graduates' competencies and the actually experienced competencies.

As the product is thus intangible and very complex, and may also vary significantly in quality (partially reflected in the graduates' grades), it will be much more difficult to control and manage than if the case was a physical product. In accordance with Harris & de Chernatony (2001), customers and other interested parties in a traditional context prefer corporate brands with a clear and consistent presentation. If this point of view is transferred to a higher education context, it means that the quality of the education will play a deciding role for the employers' assessment of the education specifically and the education institution's reputation in general.

Competencies

We examine the quality of the graduates from an employer's point of view, and as representatives of the employers. 253 of Danish Industries has identified and measured the competencies of higher education graduates. The competencies may be divided into two categories with a number of competencies grouped under each category:

- Specialised competencies: in-depth knowledge of the field, wide scope within the field, language skills, IT skills, communicative skills, business knowledge, application of theoretical knowledge, ability to create results.
- Personal competencies: flexibility, commitment, cooperative skills, adaptability, motivation to learn/try new things, intercultural understanding through specific course themes, results orientation, and management skills.

Learning

The students' development of these competencies often takes place in a study environment, where the learning process and benefits from the learning process is essential (cf. section 1.3 about CBS as a learning university). Via a didactical holistic model for learning in higher education, Martensen & Grønholdt (2004 Student Evaluation) have isolated a number of underlying determinants that are controlling for the learning level specified in accordance with Bloom's (1956) taxonomy of cognitive learning objectives. These determinants are:

- Qualifications: the students' own personal and academic qualifications for pursuing the study programme.

- Settings: physical surroundings, time of teaching, availability of information to and about teaching, study secretariat, student guidance service, other service facilities, student environment etc.
- Objectives: the objective of the MSc programme, the students' knowledge of the goals, correspondence between own goals and the goals of the study programme as well as the teachers' elucidation of goals through the courses.
- Content: relating to whether the programme courses contribute to the fulfilment of study goals, and whether the programme is well organised with respect to objectives, courses, content, syllabi and exam types, workload etc.
- The learning process: relating to whether the courses are inspiring, whether the students gain an overview of the learning process throughout the period, whether they are clear on what the purpose of each course programme is, whether the classes reflect the purpose of the individual course programmes, whether the programme allows the student enough space for personal commitment and active participation in class, whether courses reflect exam requirements, whether during the programme the student has a sense of her/his own progress and deficiencies in the learning process, and whether the study environment is active and enthusiastic.

As the above-mentioned factors determine the learning and competencies achieved at a higher education institution, the faculty is not the only factor in the learning process; the students, the institution and the administrative staff also play a role.

Value

Another aspect the latent variable graduates should also reflect is whether the graduates via their education create benefit or added value for the employers. This particular issue is the 'raison d'être' for any higher education institution and further differentiates one institution from another. With the present increasing internationalisation movement encouraging students to take part of their education at a foreign university, it will be essential to the 'battle' for (the best) students to be able to offer something supplementary than other universities – to create value for the individual student and ultimately the employers.

For this reason, the term added value is a central term within the branding theory discussed by authors such as Murphy (1992), Kapferer (1997), de Chernatony and McDonald (2003). Naturally, the authors have slightly different views of the term. De Chernatony and McDonald (2003), for example, are more concerned with discussing how 'added values' are created, whereas Kapferer (1997), for example, focuses more on how to administrate and maintain these added values once they are created.

According to de Chernatony and McDonald (2003), a brand may create added value if its signalling power and quality is high, if the significance of the price is downplayed at the expense of the added value, if the brand has customers who are strongly loyal, and if it cannot be immediately replaced by other products. These characteristics distinguish generic products from brands. If transferred to our context, it means that a higher education institution aiming to create added value should educate talented and competent graduates with special abilities of particular relevance to the business community; and that candidates via their education should aim to

achieve a high level of knowledge and competency resulting in fast profitability for the companies.

A higher education institution scoring high on the above-mentioned characteristics will in all likelihood be perceived by employers as an institution that educates better graduates than other institutions and in general differentiates itself positively from other similar institutions. This will have a positive effect on the employers' respect for the institution and they will have great faith in the institution in general and be proud to attract and hire its graduates. All in all, an education that creates added value will be noticed by employers and mentioned positively to other interested parties. In this way, the graduates will ultimately have a positive influence on the reputation of the study programme and the higher education institution.

3.3. Communication

Here communication includes three categories (Pelsmacker, 2004, pp. 8-12):

- Corporate communication
- Marketing communication
- Public relations

According to Blauw (1994), corporate communication may be defined as "the integrated approach to all communication produced by an organisation, directed at all relevant target groups. Each item of communication must convey and emphasise the corporate identity" (cited by van Riel, 1995, p. 25).

Three conditions should be emphasised in relation to this definition: firstly, that it is an integrated approach to the communications activities generated by all functional departments of the company; secondly, that the communication is directed towards all relevant target groups, which should be understood broadly as many different stakeholders (e.g. customers, suppliers, investors, authorities and the public); and finally that the communication should support and strengthen the company's identity.

Van Riel (1995, pp. 26) writes that "corporate communication is an instrument of management by means of which all consciously used forms of internal and external communication are harmonised as effectively and efficiently as possible, so as to create a favourable basis for relationships with groups upon which the company is dependent". He points out that corporate communication is a management tool aimed at ensuring an adequate degree of consistency across all communication, both internal and external, thus making sure that the organisation's different stakeholders get a clear perception of who and what the company is, ultimately ensuring that the basis of a relationship exists.

The significance of consistent communication has also been emphasised by Ind (1998) who argues that "if you communicate in a consistent tone it confers credibility on what you say, helps people to understand your message and achieves economies of communication".

In addition to ensuring consistency across different communication forms, Ind (1998, p. 28) also recommends that marketing communication in particular should contain a number of elements such as:

- A realistic reflection of the company's identity (survey question)

- Relevant and motivating for the target group (survey question)
- Unique and not just a replica of a successful competitor's communication (survey question)

The first point refers to the fact that in general the organisation should communicate in accordance with its core values. Student, employers and other stakeholders should feel that the institution and its study programmes live up to the promises given through its communication. If this is not the case, it may either create a credibility gap or result in the communication being perceived as irrelevant. As Ind (1997, p. 73) writes, "communication strategies should always be a unique reflection of an organisation". Thus, generally, it is important to ensure consistency between the organisation's communication and core values, which requires management to be proficient in communicating the company's vision and values to the surrounding world (survey question).

The next point relates to the notion that communication should be relevant and motivating for the employers. Therefore, the communication should take as its point of departure the motives and needs the employers aim to fulfil by hiring graduates from the higher education institution. Relevant and pertinent communication can help create and maintain the employers' interest and involvement, which may form the basis of a stronger relationship, in which the employers see the use of hiring graduates from the education institution in question. Conversely, relevant communication probably will not have a positive effect on the relationship; a likely assumption would be that it will have a negative effect on the employers' associations and attitude to the education specifically and the institution in general. For this reason, the communication should be based on the overall idea and value positioning with adjustments to different stakeholders, so that the same message is not

necessarily conveyed to all. All in all, the company's communication should be consistent and relevant for the selected target groups (survey questions).

The company's communication should be distinguished from other communication and not just be a replica of the competitors' successful campaigns. The communication should be based on a unique value positioning with a clear direction, creating a clear understanding with the stakeholders. In addition to the communication being relevant for the target group, this means that you should focus on "a unique product for the few – rather than a fairly good product for the masses" (Kunde, 2001, p. 111) (survey question).

Ind (1997, p. 75), however, points out that the differentiation need not be radical, but may be based on subtle or clever differences. This could prove necessary within the different CBS MSc programmes, offering different specialisations (lines) in the marketing area, as students, employers and others may experience difficulty distinguishing between the lines. For communication purposes, the value positioning may also provide adequate differentiation. If all other higher education institutions promote themselves through the education of internationally competitive graduates, CBS would probably not be able to use this as the only basis of differentiation in its communications. A more pronounced value positioning is required, the purpose of which is to be distinguished from others and to dare to be different, at the same time representing something unique in the eyes of the stakeholders.

Marketing communication includes (Hutton, 1996):

- Traditional mass-media advertising
- Corporate advertising

- Sales force and channel communications, trade shows, direct marketing, sales promotions, etc.
- Product publicity, brochures and other collateral materials, sponsorships, etc.

For a higher education institution, marketing communication serves to supply information about the institution and its study programmes and attract new students to the institution. In addition to the above-mentioned categories, the communication also includes the institution's web site and open day events.

Public relations refer to media reports about the company and its activities. Positive press is an advantage for the company, as the communication emanates from a seemingly neutral source and thus appears as even more credible than the company's own communication (survey question). In contrast, the company will be very vulnerable to negative press, as in these cases the press will often be found more credible than the suffering company. Berlingske Nyhedsmagasin (Denmark's leading business magazine) has carried out a survey among business managers regarding the company's management of bad press. The result showed that the companies that without hesitation accepted responsibility and the consequences of their actions leading to the crisis suffered the least damage to their image. Thus, it is not enough to just renounce the press' claims; this will not increase the credibility of the company. The company has to come forward and demonstrate that they really accept responsibility (Berlingske Nyhedsmagasin, 2002).

3.4. Rational and emotional evaluations

Innovativeness

An organisation's ability to be creative and innovative is one of its most vital competencies, since it reflects the organisations' ability to generate future earnings. In a higher education context, this means that the employers should regard the institution and its study programmes as interesting, exciting and innovative. In a higher education context, future earnings are among other things created by a sufficient student basis, which in Denmark can release public funds; additionally, external funding and corporate sponsorships may be achieved for research projects.

Aaker (1996a) also found that innovation is one of the most important corporate brand associations. According to Aaker (1996a, p. 118), a corporate brand perceived in consumers' minds as innovative is often associated with being modern and up-to-date. Other consumer associations typically linked to an innovative organisation is its ability to anticipate customer demands, to be creative, to navigate the market successfully, to be a party in market creation and to continuously find new directions and reinvent itself.

In a higher education context, being innovative means conducting research on a high international level and communicating this research – together with other state-of-the-art knowledge – through the study programmes. In a higher education context, the necessity of knowledge transfer is a key issue. However, to be innovative also means that the institution must continuously adapt or develop its education portfolio to employers' needs and demands. These are precisely the abilities that characterise good education institutions and distinguish the best and highest ranking institutions from others in an international benchmarking context.

Customer orientation

One of the primary purposes for a higher education institution such as CBS is to achieve student and employer satisfaction. This requires the institution to be customer oriented - to listen, analyse and act based on stakeholders' needs and demands and to strive to live up to their expectations. It is vital for an organisation wishing to be customer oriented to take as its point of departure the customers' (students, employers, etc.) perception rather than the organisation's own perception. This is true both in relation to the development of the master programme, its different courses and examination forms and "the added values" supporting the master education. In this context, added values could e.g. be good and fast service from the study administration and other secretariat functions, the extent and availability of electronic journals from the library, institution opening hours in general and the library specifically, the adequacy of suitable teaching and group rooms etc.

Being customer oriented may also be seen as an opportunity for a higher education institution to differentiate itself from other education institutions and thus create added value for stakeholders. According to Aaker (1996a, p. 127), a corporate brand associated with customer orientation will stimulate a feeling of "friendship" in the minds of the consumers, which can give the consumer a sense of respect, honesty and reliability towards the corporate brand and thus ultimately strengthen the relationship to the company.

Differentiation

In theory and practice about branding, it is argued that a brand should differentiate itself from its competitors and offer the market something unique (see e.g. Aaker, 1996a, 2004; Keller, 2003).

Unlike a product brand, a corporate brand makes it possible for a company to position itself in the minds of the consumers with a broader and more varied image than usually possible through the product itself. As Keller (2000, p. 115) puts it, "a corporate brand is distinct from a product brand in that it can encompass a much wider range of associations. A corporate brand thus is a powerful means for firms to express themselves in a way that is not tied into their specific products or services".

Associations created based on the company's identity, such as the company's culture, core values, people, strategies and products, express that which makes the company unique and special, which may then serve as the point of departure for differentiation. Aaker (1996a, p.115) expresses it as follows, "the basic premise is that it takes an organisation with a particular set of values, culture, people, programs, and assets/skills to deliver a product or service. These organisational characteristics can provide a basis for differentiation, a value proposition and a customer relationship". Taking for instance its core values and strategies as the point of departure, an organisation may thus create associations that make the consumer experience an emotional value in addition to the more functional attributes.

Trust and credibility

Several authors believe that an essential and very important part of a brand is the trust consumers have in the brand living up to their expectations, both regarding functional and emotional benefits (Aaker, 1996a, p. 245; Jacobsen, 1999; Kapferer, 1997, pp. 15, 18-20). The consumers' trust should be earned by the organisation and it may be seen as a prerequisite for the development of an attitude-based relation between the consumer and the organisation. As Gobé (2001, p. xxix) writes, "Honesty is expected. Trust is engaging and intimate. It needs to be earned".

From a consumer perspective, trust helps to reduce the perceived risk linked to the purchase or use of an organisation's products (Feldwick, 1999, pp. 21-24). Trust also provides assurance of quality, reliability, etc. and is thus a factor in providing the consumer with the experience of dealing with a credible and reliable organisation – a factor that is important in connection with the consumer's decision process. Thus, the organisation should be careful not to communicate values that they cannot live up to. In the worst case, consumers will lose faith in the organisation and leave them for their competitors.

Another dimension of this aspect is credibility. It is important for organisations to have high credibility. Many empirical studies show that the consumers' perception of an organisation's credibility plays a central role for their perception of and attitude to the organisation, its products and communication (MacKenzie & Lutz, 1989; Goldberg & Hartwick, 1990; LaBarbera, 1982). For example, LaBarbera (1982) found that if corporate credibility was not present, then the organisation's communication would not create a favourable response.

The organisation's credibility also plays a significant role for the consumers' future relationship with the organisation. Thus, Laroche, Kim & Zhou (1996) found that familiarity with a brand seems to affect consumers' faith in the brand, which will in turn influence their brand relationship. Lafferty & Goldsmith (1999, p. 114) found that "...in the case of high corporate credibility, when the brand attributes are lacking, the reputation of the firm may give the consumers more confidence that the product is a good one and make them significantly more willing to purchase the brand". Fombrun (1996) presents a similar argument, namely, that "...consumers' perceptions of the trustworthiness and expertise of an organisation are part of the

information they use to judge the quality of the organisation's products and therefore whether they want to buy them or not".

Therefore, being a credible organisation considerably influences the consumers' attitude toward the brand and its communication, and eventually the consumers' future relationship with the organisation and its products. For this reason, the organisation should make a real effort to find out what they need to do to create high credibility among consumers. This advice may also be transferred to higher education institutions and their stakeholders.

Feelings

Today, the consumers take excellence in functional features for granted. In future, the consumers will require brands to "dazzle their senses, touch their hearts, and stimulate their minds". They want brands to "deliver an experience" (Schmitt, 1999, p. 57). Therefore, brands should help make life more exciting, and create added value by giving the consumers a number of positive sensorial experiences that will remain in their emotional memory on a level beyond need. Brands should provoke excitement and evoke a higher experience than simply product-function. Brands should create positive feelings with us – we need to feel touched emotionally (Kunde, 2001). People want brands with more promise than simply 'cleaner and whiter teeth'. They want an intense and fantastic experience. In this way, the kind of memorable emotional brand relation that will establish brand preference and create brand loyalty is achieved.

We believe that the term *feelings* is also justified in a higher education context. The demand for brands to provoke excitement and evoke a higher experience than simply product-function and to create positive feelings with consumers, touching them emotionally, means that MSc graduates

from CBS should differentiate themselves from other graduates on specialised competencies, e.g. in-depth knowledge of their field, a broad scope of knowledge, application of theoretical knowledge and ability to create results. In future, employers expect that graduates from a higher education institution possess some of these specialised competencies. For an institution to survive in the long run, such specialised competencies will quite simply be a prerequisite.

The graduates' own personal competencies, e.g. flexibility, commitment, cooperative skills, adaptability, motivation to learn/try new things, and management skills, will thus play a central role for the employers' feelings. In future, employers will be more impressed by softer competencies. These softer competencies will to a higher degree be touching the employers hearts, stimulating their minds and giving them a feeling of prestige when hiring a graduate from a particular institution.

In addition to survey questions in relation to the reputation model, the employers were also asked about the importance they placed on different specialised and personal competencies when hiring a recently graduated MSc candidate, and to what degree a recently graduated MSc candidate from CBS live up to their competency needs. This part of the survey shows that personal competencies play a central role for employers, and that the personal competencies most valued by the employers are the graduates' motivation to learn/try new things, their commitment, cooperative skills and adaptability.

4. An empirical study

4.1. Methodology and data

As mentioned in section 3.1, the conceptual model in Figure 1 is specified as a structural equation model with nine latent variables, each operationalised by a set of survey questions to the employers. The questions used to operationalise the model were developed based on literature studies and existing reputation, image and identity measurement instruments, and designed in a generic way meaning they were formulated in general terms, allowing them to be used across different types of higher education institutions and study programmes. One of the methodology's central elements is the use of a harmonised model and measurement instrument with generic questions, so the estimated results can be compared across study programmes and institutions.

To validate the higher education reputation model, a survey was conducted during the spring of 2004 using CBS as a case study. The data includes approximately 150 Internet interviews with employers of MSc graduates from CBS. A questionnaire was designed consisting of 52 generic questions measuring the model's nine latent variables. The questionnaire was supplemented with approximately 40 questions, examining the employers' knowledge of and involvement in CBS and the MSc programme as well as the employers' assessment of the competencies of MSc graduates from CBS. We also added six screening and background questions. Most of the questions were formulated as statements, to which the respondent was asked to rate her/his level of agreement on a 5-point scale (from 'strongly disagree' to 'strongly agree').

Based on the data collected, the model in Figure 1 was estimated using a partial least squares (PLS) method (Fornell & Cha, 1994; Chin, 1998). PLS estimates the performance level for each of the nine latent variables and impact scores between the variables.

4.2. Initial data analyses

Several analyses have been carried out to select and assess the final items and provide methodological validation of the latent variables in the reputation model.

The original item list contained 52 survey questions, of which 44 items were retained (3-7 items correspond to each of the nine latent variables), based on the results of several repeated analyses.

Analyses of internal consistency reliability were also carried out. Cronbach's alpha coefficient was first calculated for the items of each latent variable. The items that did not significantly contribute to the reliability were eliminated for parsimony purpose, and some of the items were substituted. In the study, Cronbach's alpha ranged from 0.69 to 0.92 for eight of the nine latent variables based on the reduced items. These values are at the level with or clearly higher than the generally recommended lower limit of 0.70 for Cronbach's alpha (Hair et al., 1998, p. 118; Robinson et al., 1991), indicating that all the items in each latent variable form a single, strongly cohesive and conceptual construct. Only one latent variable did not fulfil this prerequisite, namely education, which only achieved a Cronbach's alpha of 0.59. Nevertheless, we have opted to accept the variable and its items.

Furthermore, explanatory factor analyses were conducted to examine whether the items produced the proposed factors and whether the individual items were loaded on their appropriate factors as

hypothesised. A factor analysis using a varimax-rotation technique was conducted on all items and the results supported the proposed nine-factor solution.

Finally, confirmatory factor analyses based on the correlation matrix of the items were conducted to assess the items of the latent variables more rigorously. Specifically, the confirmatory factor analyses were used to detect the hypothesised uni-dimensionality of each construct, which the results supported.

These initial results provided evidence of reliability and construct validity.

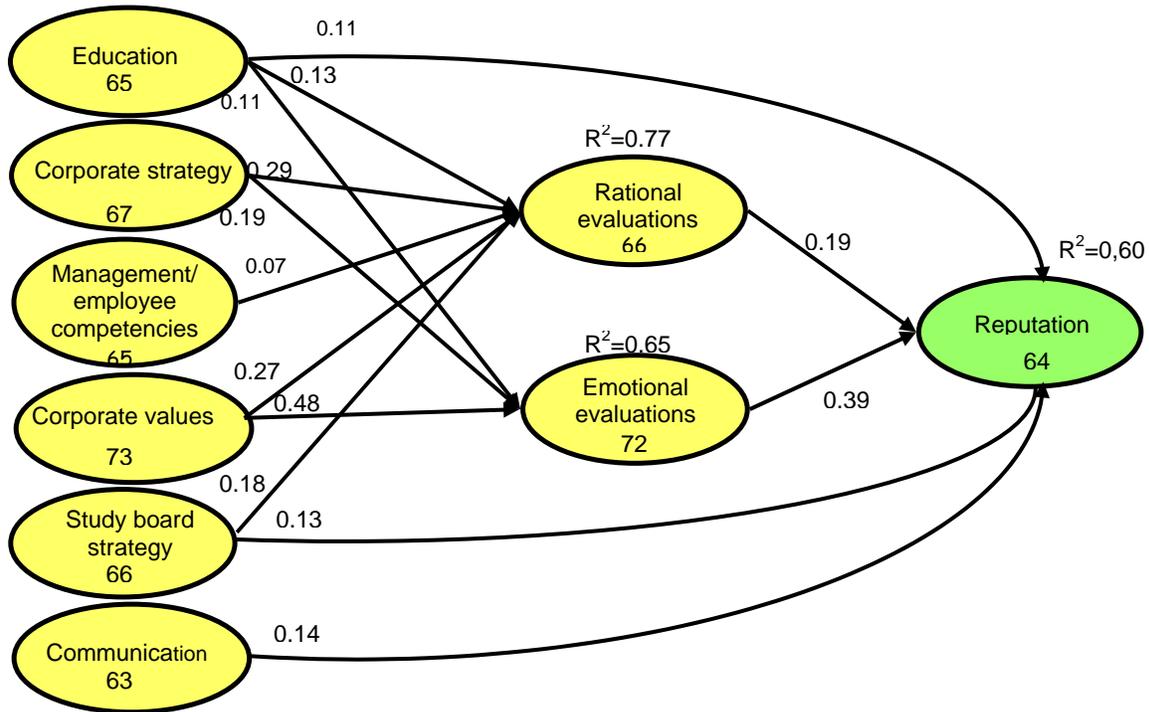
4.3. Estimation and validation of the model

Figure 2 shows the estimated model for CBS' MSc programme with performance indexes for each latent variable (these are shown inside the circles) and impact scores between the latent variables (these are illustrated by the arrows).

The performance index for a latent variable is estimated by a weighted average of scores from the corresponding indicators (survey questions), transformed from the original 5-point scale to a 0- to 100-point (poor-to-excellent) scale. For example, graduates have an estimated performance index of 65 as shown in Figure 2.

An impact score represents the effect of a change in the performance index of 1 point in a latent variable. E.g., a 1-point increase in the performance index for education directly results in a 0.13 increase in the rational evaluations' index, in a 0.11 increase in the emotional evaluations' index and in a 0.11 increase in the reputation index as shown in Figure 2.

Figure 2: Estimated CBS MSc Programme Reputation Model



All the relationships between the latent variables shown in Figure 1 have been tested, and only the significant relationships are shown in Figure 2.

The estimated model in Figure 2 shows that the reputation of the CBS MSc programme is created as an interactive result of rational and emotional evaluations and as a direct effect of education, communication and the study board's strategy.

In this case, the emotional factors are twice as strong as the rational factors; the reputation of a given CBS master education is thus far more influenced by emotional factors such as trust in and respect for CBS educations as well as whether the employers associate prestige with hiring graduates from CBS. Since education is an intangible product, it will be more difficult to relate to the

reputation of the education in a rational fashion, and experience has furthermore shown that when it comes to intangible products, in most cases the heart controls our attitudes and decisions. The rational evaluations reflect conditions such as differentiation, innovation and customer orientation, which are difficult for the respondents to weigh without some knowledge of the field.

In the sample forming the basis of the empirical analysis, 92% were generally familiar with the Danish MSc programme within economics and business administration, and among these 92% approximately 1/3 had no knowledge of the MSc programme at CBS or only knew of the name, approximately 1/3 had slight knowledge of the CBS MSc programme and approximately 1/3 knew something or quite a lot of the CBS MSc programme. Since only 1/3 of those who had knowledge of the MSc programme know the CBS MSc programme well or very well, we have to conclude that CBS has an awareness problem among the employers. This may be one of many reasons why the rational evaluations only achieved a performance index of 66 versus the emotional evaluations that achieved an index of 72; if asked to evaluate something you have little knowledge of, you usually give it a neutral score.

It can also be observed that two of the model's determinants only influence the rational evaluations and not the emotional ones, namely management and employee competencies and the MSc study board. Consequently, the fact that the CBS faculty and management are talented and competent does not significantly influence the employers' trust in and respect for the MSc programme at CBS. Presumably, all the other higher education institutions also have competent people, which is only what you would expect of an institution wishing to brand itself on the international scene.

The MSc study board strategy, addressing among other things development and profiling of the MSc programme as well as differentiation compared to other MSc programmes, influences the rational evaluations, that is, the perception that the MSc programme is innovative, customer oriented and differentiated, which was also in accordance with our a priori expectations. A priori we had also expected that the emotional evaluations would be directly affected; however, this relation is not supported statistically.

Finally, we had expected that communication would influence all three performance variables, however, as Figure 2 shows, communication only influences reputation. This is puzzling as here communication relates to whether CBS' communication is experienced as open and honest, whether the information given to the employers is relevant, the management is successful at communicating visions and goals to the surrounding world as well as participating in the public and finally whether the employers feel that CBS receives positive mentions in the media. All these relations would initially seem to influence employers' trust in and respect for the CBS MSc programme and their perception of the programme as innovative, customer oriented and unique. Still, the relations are not statistically significant. The missing relation may be due to the fact that CBS communication to employers has not always been sufficiently systematic or coordinated. Recently, the CBS management upgraded the area and strengthened the Communications Department; hopefully in future this will change the role of communication in the creation of a good reputation.

The highest performance index in the estimated model is achieved for corporate values with an index of 73; emotional evaluations are at the same high level with an index of 71. The CBS Graduate School has thus positioned itself strongly in the employers' minds (and hearts) as a trusted and respected study programme. The employers feel that CBS lives up to its values, as they get the

feeling that CBS is serious about its responsibility as a learning university, that CBS educates graduates that are competitive on an international market and that CBS is internationally oriented. So CBS has been good at influencing the more affective parts of the employers.

By estimating the model in Figure 2, we have achieved a satisfactory level of explanatory power. The model is able to explain 60% of what drives reputation, 77% of what drives the rational evaluations and 65% of what drives the emotional evaluations. (R^2 is 0.60, 0.77 and 0.65 respectively). These findings indicate good support for the developed model.

Furthermore, the validation of the model shows that the proposed division between rational and emotional evaluations was a good idea, since the impact from these two areas is quite different under certain conditions and it is possible to study the effect of the six determinants not only on reputation, but also on the intermediate image dimension of a both rational and emotional nature. Subsequently, this could provide useful knowledge on how the determinants influence the employers, which can be used in the strategic planning process and in the management of the communications effort.

5. Application of the model

Based on the impact scores in Figure 2, the total impact, i.e. the direct and indirect impacts, on reputation may be calculated. These numbers are shown in Table 1.

The highest total impact score is obtained for corporate values: a 1-point improvement in the corporate value index increases the performance index for reputation by 0.24. CBS' corporate values thus greatly influence the reputation of the MSc programme. This merely confirms our

previous point of reference, in which CBS takes as its point of departure the sub-brand strategy. The focus should be on the MSc Programme with its 15 lines, which by themselves may be perceived as strong sub-brands. However, CBS should be the more visible player and function as the master-brand and driver of the MSc programme, since the image transfer from CBS is substantial, cf. Table 2. As CBS has managed to clearly position its values in the minds of employers (index of 73) and they also find these values very important (impact score of 0.24, which is the highest impact among all determinants), the CBS Graduate School and the MSc study board at CBS should take advantage of this in future communications with employers.

Table 2: Effect of a 1-point improvement in the determinants on reputation

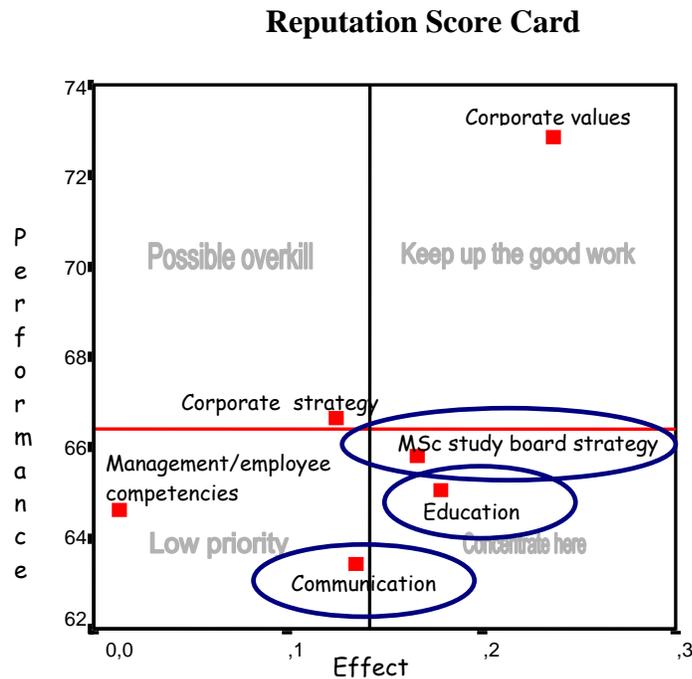
	Effect on reputation
Graduates	0.18
Corporate strategy	0.13
Management and employee competencies	0.01
Corporate values	0.24
Study board strategy	0.17
Communication	0.14

The estimated total impact scores (from Table 2) and performance indexes (from Figure 2) can be combined by categorising each of the determinants into an importance-performance map (Figure 3) called a Reputation Scorecard. Such a data presentation is both appealing from a managerial viewpoint and useful in assessing the MSc programme's reputation and strategy development.

Each determinant may be placed in one of the four cells in the map. The lines separating the respective cells are based on the average impact scores and performance indexes, respectively. The

four cells can be interpreted in managerially useful ways (Rust et al., 1996, pp. 265-267; Johnson, 1998, p. 23; Johnson & Gustafsson, 2000, pp. 12-14, 142-145; Christopher et al., 2002, pp. 70-73).

Figure 3. Impact versus performance in driving CBS MSc programme reputation:



In the upper-left cell, performance is strong and impact is low. At best, this suggests maintaining status quo. In some cases, there may be opportunities for transferring resources from the areas in this cell.

In the upper-right cell, performance is strong and importance is high. This area presents competitive strengths and therefore the organisation should continue the good work.

The lower-left cell represents an area where the organisation is not doing particularly well, but it does not matter. It is best to ignore these areas – at least they should have very low priority.

The lower-right cell represents the area of the greatest opportunity. This area is important, and the organisation is not doing well. The organisation should concentrate its effort here, and add resources to this area.

Figure 3 fairly clearly shows that improvements are needed within three areas. Firstly, CBS should improve the CBS master-education; the employers find the education very important, but also feel that CBS performs relatively poorly in this area compared to the other obtained performance levels. It is important to note that the performance index of education is 'relatively poor', which not necessarily means that the performance in itself is poor, but compared to the other latent variable, this is the variable that has the lowest performance index (together with communication). Nevertheless, no matter how well you perform, it can always be improved – continuous improvement is required.

The latent variable communication achieves a poorer performance evaluation and as communication borders on the primary improvement area, it should be the second area to receive extra resources.

Thirdly, the MSc study board should try harder to live up to the published strategies about a clearer profiling of the MSc programme as a whole as well as individual specialisations.

If CBS Graduate School wants to improve its reputation, it needs to make an effort to improve in three areas, namely within *the quality of the graduates*, *the MSc study board's strategy* and *communication*. But what do these areas refer to in more concrete terms? How important are the individual areas for the employers in general? And how do the employers perceive the

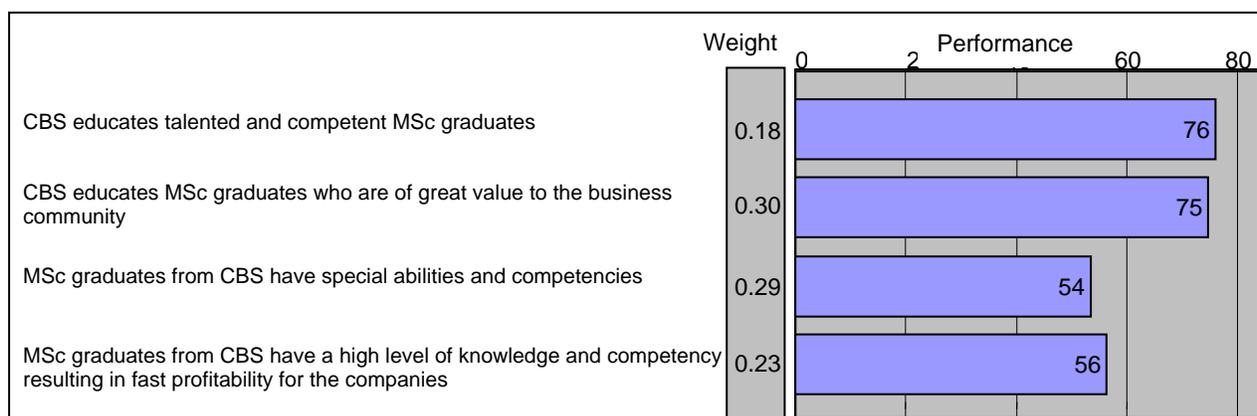
performance within these areas? Lets briefly look at this in the following, using Figures 4, 5 and 6 as our point of departure.

The figures show the observed average score (once again on a 0-100 scale) for the indicators (survey questions) that reflect the measurement of each of the latent variables. The figures also list their weight, which is estimated using PLS, and these weights are used when performance index for every latent variable is calculated as a weighted average of the observed indicators.

Figure 4 shows that as far as the area graduates goes, there are two sub-areas that achieve poor performance, but are very significant to the employers:

- MSc graduates from CBS have special abilities and competencies
- MSc graduates from CBS have a high level of knowledge and competency resulting in fast profitability for the companies

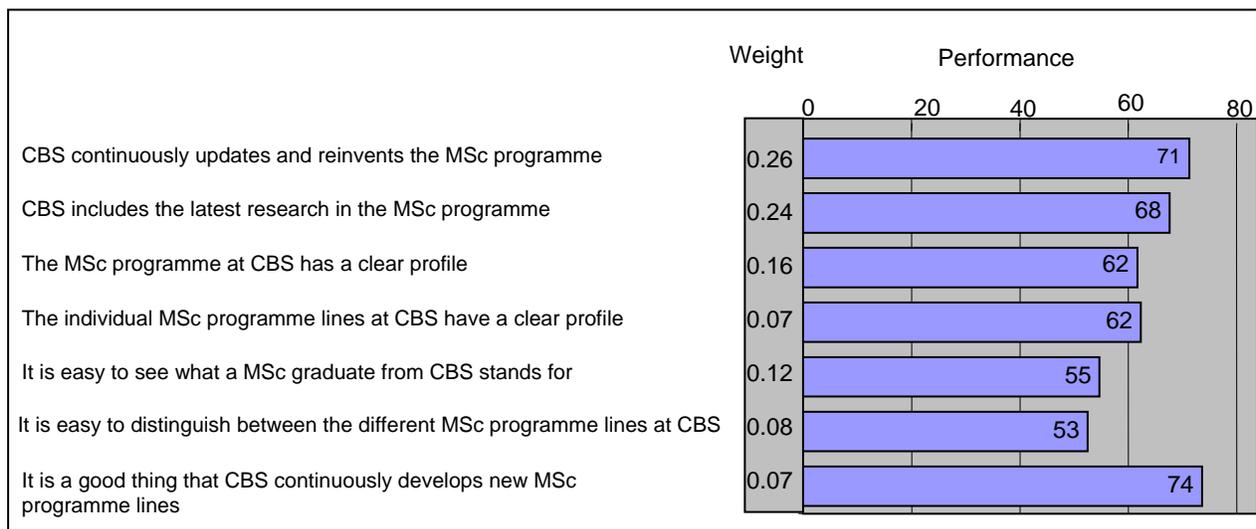
Figure 4. Weight and performance for the indicators of graduates



This means that CBS educates competent graduates of great value for the business community, however, they are not particularly distinguished from graduates from other higher education institutions – they are neither better nor worse than other graduates – and therefore they do not contribute any faster to the companies’ bottom line than their peers from other institutions. In conclusion, the CBS Graduate School should make more of an effort to differentiate and distinguish itself positively from other similar MSc programmes, resulting in MSc graduates from CBS being perceived as unique in relation to other similar graduates with clear advantages; e.g. by increasing their business understanding, so they become better at creating results fast.

A more specific illustration of the MSc study board's strategy is shown in Figure 5, which clearly demonstrates that the MSc programme at CBS lacks a clear profile for the programme as whole as well as for the individual specialisations (lines) specifically. Thus, the employers find it hard to see what the MSc graduates stand for and which competencies they have specifically acquired as a result of following one of the 15 specialisations.

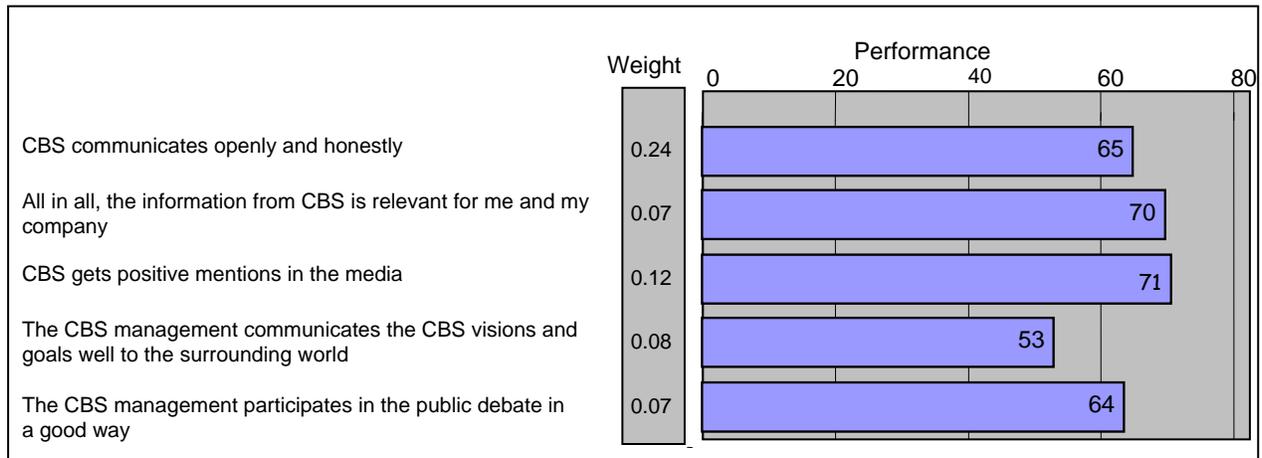
Figure 5. Weight and performance for the indicators of MSc study board strategy



If the CBS MSc study board wishes to strengthen the MSc programme's reputation, they should make a more active effort to implement the strategy of increased awareness of and a more positive attitude to MSc graduates from CBS. In the communication with the employers, CBS should thus prioritise information about the competencies a MSc graduate from CBS generally achieve through her/his studies, whether these are *specialised competencies* such as creating results, greater business understanding, better abilities to communicate with other people, including people with no special knowledge of economics and business administration, or more *personal competencies* such as understanding the necessity of continuously improving and learning new things, learning throughout one's studies that the ability to work in teams and cooperate with others often yields better results than individual performances, but great flexibility and commitment is needed, as well as an understanding of the notion that while the process is important, only the creation of results counts at the end of the day.

The last area that should be improved according to the Reputation Score Card in Figure 3 is communication. The details are shown in Figure 6.

Figure 6. Weight and performance for the indicators of communication



The employers do not think that the CBS management makes enough of an effort to communicate the CBS visions and goals to the surrounding world (performance index of 53); however, this is not very important to the employers (weighting 0.08). On the other hand, CBS' performance is mediocre when it comes to open and honest communication (index of 65), which is otherwise relatively important to the employers. Open and honest communication achieves a weighting of 0.24, which is twice as much as the second most important area 'positive mentions in the media' achieving a weighting of 0.12. With an index of 71, it is fair to say that CBS' performance in the media is generally positive, which also means that researchers have been successful in communicating research results, making them understandable and interesting for the industry and society. The mentions in the media may thus be seen as a specific area of strength and management will find it advantageous to encourage and promote researchers to communicate their research results in popular form.

6. Managerial implications

The benefit and practical implications of the model and its measurement instrument are evident. For a higher education institution, the model and measurement system may be a useful management tool in three different ways:

- *Tracking performance* across the model's variables.
- *Benchmarking*. Using a battery of similar questions, the model may be used consistently for different study programmes and different higher education institutions over time. In this way, it represents a unique platform for benchmarking. It can help answer questions such as: How does a particular study programme perform in relation to other study programmes at the same institutions or other institutions?
- *Support for reputation management and strategy development*. Which determinants should have low priority or high priority? What is the effect of various improvement activities for reputation? In which areas should efforts be concentrated to improve the reputation and, in turn, to create a better and more competitive education institution?

7. Conclusion and future research

The conceptual Higher Education Reputation Model is specified as a structural equation model with latent variables. Each of the latent variables in the model is operationalised by a set of indicators, observed by survey questions to employers of higher education graduates. The indicators and questions are designed in a generic way, which means that they are flexible and can be applied across different study programmes and institutions.

The cause-and-effect model provides a comprehensive means of covering important reputation, image and identity topics, as well as a better understanding of which associations a higher education institution and its graduates create in the minds of employers.

The model was validated and applied to the MSc programme at Copenhagen Business School. The estimation of the model shows that the model structure provides a very good explanation of reputation and our validation further provides strong support for the developed model and the associated measurement instrument.

The model may be used both descriptively and normatively in support of management's decisions on actions for the improvement of reputation (as perceived by employers) of a given study programme. Our example has demonstrated that the use of the model's results yields clear recommendations for areas of improvement.

By measuring the model, we are given the possibility of obtaining information concerning reputation, employers' associations and evaluations of the study programme, its graduates and the mutual relations between them. The determinants' impact on the reputation is crucial for the future efforts to attract the 'best' students and to ensure that employers prefer the institution's graduates to other graduates from competing institutions. The goal is thus to create a good enough reputation among employers to influence them to recruit graduates from the study programmes and institution.

References

- Aaker, D.A. (1996a). *Building Strong Brands*. New York: Free Press.
- Aaker, D.A. (1996b). "Measuring Brand Equity Across Products and Markets", *California Management Review*, Vol. 38, No. 3, pp. 102-120.
- Aaker, D.A. (2002). *Brand Leadership*. London: Simon & Schuster.
- Aaker, D.A. (2004). *Brand Portfolio Strategy: Creating Relevance, Differentiation, Energy, Leverage, and Clarity*. New York: Free Press.
- Aaker, D.A. & Joachimsthaler, E. (2000). "The Brand Relationship Spectrum: The Key to the Brand Architecture Challenge", *California Management Review*, Vol. 42, No. 4 (Summer), pp. 8-22.
- Abrat, R. (1989). "A new approach to the corporate image management process", *Journal of Marketing Management*, No. 1, pp. 63-76.
- Alessandri, S.W (2001). "Modeling corporate identity: A concept explication and theoretical explanation", *Corporate Communications: An International Journal*, Vol.6, No. 4, pp. 173-182.
- Alvesson, M. (1998). "The business concept as a symbol", *International Studies of Management and Organisation*, Vol. 28, No. 3 (Fall), pp. 86-108.
- Ambler, T. (1992). *Need-to-know-marketing*. London: Century Business.
- Association of Presidents of Danish Higher Education Institutions (2004). *Internationalisering af de danske universiteter: Vilkår og virkemidler*. Copenhagen, Denmark: Association of Presidents of Danish Higher Education Institutions (in Danish).
- Balmer, J.M.T. (1995). "Corporate Branding and Connoisseurship". *Journal of General Management*, Vol. 21, No. 1, pp. 22-46.
- Balmer, J.M.T. (1996). *The Nature of Corporate Identity: An Explanatory Study Undertaken within BBC Scotland*, PhD Thesis. Glasgow, UK: Department of Marketing, University of Strathclyde.
- Balmer, J.M.T. (2001). Corporate Identity, Corporate Branding and Corporate Marketing – Seeing Through the Fog. *European Journal of Marketing*, Vol. 35, No. 3/4, p. 248.
- Balmer, J. M. T., and Soenen, G. B. (1999) "The Acid Test of Corporate Identity Management", *Journal of Marketing Management*, Vol. 15, No. 1-3, pp. 69-92.
- Balmer, J.M.T. & Greyser, S.A. (2003). *Revealing the Corporation: Perspectives on Identity, Image, Reputation, Corporate branding, and Corporate-level Marketing*. London: Taylor & Francis Books.
- Barlow, J., & Maul, D. (2000). *Emotional Value: Creating Strong Bonds with Your Customers*. San Francisco, California: Berrett-Koehler Publishers.
- Barich, H. & Kotler, P. (1991). "A framework for marketing image management", *Sloan Management Review*, Winter, pp. 94-104.
- Berlingske Nyhedsmagasin (2002). "Guld Imageanalyse 2002", No. 16, 6 May (in Danish).
- Bernstein, D. (1984). *Company Image and Reality: A Critique of Corporate Communications*. Eastbourne: Holt, Rinehart and Winston, The Advertising Association.
- Birkigt, K. & Stadler, M.M. (1986). *Corporate Identity: Grundlagen, Funktionen, Fallbeispiele*, 3rd Edition. Landsberg am Lech: Verlag Moderne Industrie.
- Blauw, E (1994). *Het Corporate Image, vierde geheel herziene druk* (4th Edition). Amsterdam: De Viergang.

- Bloom, B.S. (Ed.) (1956). *Taxonomy of Educational Objectives: The Classification of Educational goals. Handbook I: Cognitive Domain*. New York: Longmans.
- Boulding, K.E. (1973). *The Image*. Ann Arbor, Michigan: The University of Michigan Press.
- Bromley, D.B. (1993). *Reputation, Image and Impression Management*. Chichester: John Wiley & Sons.
- Brown, T.J. & Cox, E.L. (1997). "Corporate associations in marketing and consumer research: a review", *Corporate Reputation Review*, Vol. 1, No. 1/2, pp. 34-38.
- Brown, T.J. & Dacin, A. (1997). "The company and product: corporate associations and consumer product responses", *Journal of Marketing*, Vol. 61, No. 1 (January), pp. 86-84.
- Chin, W.W. (1998). "The Partial Least Squares Approach to Structural Equation Modelling". In Marcoulides, G.A. (ed.), *Modern Methods for Business Research* (pp. 295-336), Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Confederation of Danish Industries (2002). *Vind eller forsvind i den globale økonomi: Hvordan får vi verdens bedste salgs- og marketingmedarbejdere*. Copenhagen, Denmark: Confederation of Danish Industries (in Danish).
- Cooper, A. (1999). "Everything you wanted to know about 'brand equity tracking' but were afraid to ask", *Journal of Brand Management*, Vol. 6, No. 3, pp. 153-160.
- Cravens, K., Oliver, E.G. & Ramamoorti, S. (2003). "The Reputation Index: Measuring and Managing Corporate Reputation", *European Management Journal*, Vol. 21, No. 2, pp. 201-212.
- Christensen, L.T. & Askegaard, S. (2001). "Corporate identity and corporate image revisited - A semiotic perspective", *European Journal of Marketing*, Vol.35, No. 3/4
- Christopher, M., Payne, A., & Ballantyne, D. (2002). *Relationship Marketing: Creating Stakeholder Value*. Oxford, England: Butterworth-Heinemann.
- Crosby, L.A., Evans, K.R., & Cowles, D. (1990). "Relationship Quality in Service Selling: An Interpersonal Influence Perspective", *Journal of Marketing*, Vol. 54, July, pp. 68-81.
- Dacin, P.A. & Brown, T.J. (1997). "The company and the product: Corporate associations and consumer product responses", *Journal of Marketing*, Vol. 61, No. 1, pp. 68-84
- Dart, C. (2002). *Brands are alive*. Available from www.brandchannel.com/papers.asp.
- de Chernatony, L. & McDonald, M. (2003). *Creating Powerful Brands – in Consumer, Service and Industrial Markets* (Third edition). Oxford, England: Elsevier/Butterworth-Heinemann.
- de Chernatony, L. (2001). *From Brand Vision to Brand Evaluation: Strategically Building and Sustaining Brands*. Oxford, England: Elsevier/Butterworth-Heinemann.
- Dolak, D. (2001). *Building A Strong Brand: Brands And Branding Basics*. Available from www.davedolak.com/whitepapers/dolak4.htm.
- Dowling, G.R. (1993). "Developing your corporate image into a corporate asset", *Long Run Planning*, Vol. 26, No. 2, pp. 101-109.
- Doyle, P. (1998). *Marketing Management and Strategy* (Second edition). London: Prentice Hall.
- Einwiller & Will (2002). "Towards an integrated approach to corporate branding – an empirical study", *Corporate Communications*, Vol. 7, No. 2.
- Engel, J., Blackwell, R.D., & Miniard, P.W. (1994). *Consumer Behaviour*. Dryden Press.
- Eskildsen, J., Kristensen, K., Vestergaard, T. & Schmidt-Laugesen, C. (2004). "Corporate Reputation as a Strategic Performance Measure", In Neely, A., Kennerley, M. & Walters, A. (eds.) *Performance Measurement and Management: Public and Private - Papers from the 4th International Conference on Performance Measurement and Management - PMA 2004, Edinburgh, UK, 28-30 July* (pp. 355-362). Cranfield, UK: Performance Measurement

- Association (PMA) and Centre of Business Performance, Cranfield School of Management, Cranfield University.
- Faircloth, J.B., Capella, L.M., & Alford, B.L. (2001). The effect of brand attitude and brand image on brand equity. *Journal of Marketing Theory and Practice*, Vol. 9, No. 3, pp. 61-75.
- Feldwick, P. (1999). "Defining brands". In Cowley, D (Ed.) *Understanding Brands, by 10 people who do*. London: Kogan Page.
- Feldwick, P. (2002). *What is brand equity, anyway?* Henley-on-Thames, Oxfordshire, UK: Admap Publications.
- Fombrun, C.J. (1996). *Reputation - Realizing Value from the Corporate Image*. Boston, Massachusetts: Harvard Business School Press.
- Fombrun, C.J. (2001). "Corporate Reputations as Economic Assets". In Hitt, M.A., Freeman, R.E. & Harrison, J.S. (eds) *The Blackwell Handbook of Strategic Management* (pp. 289-312). Oxford, UK: Blackwell Publishers.
- Fombrun, C.J., Gardberg, N.A. & Server, J. (2000). "The reputation quotient: A multi-stakeholder measure of corporate reputation", *Journal of Brand Management*, Vol. 7, No. 4, pp. 241-255.
- Fombrun, C.J. & van Riel, C.B.M. (2003). *Fame and Fortune: How Successful Companies Build Winning Reputations*. Upper Saddle River, New Jersey: Financial Times Prentice Hall, an imprint of Pearson Education.
- Fornell, C., & Cha, J. (1994). Partial Least Squares. In P.P. Bagozzi (Ed.), *Advanced Methods of Marketing Research* (pp. 52-78). Cambridge, Massachusetts: Blackwell.
- Franzen, G. (1999). *Brands and advertising: How advertising effectiveness influences brand equity*. Henley-on-Thames, Oxfordshire, UK: Admap Publications.
- Franzen, G. & Bouwman, M. (2001). *The Mental World of Brands: Mind, memory and brand success*, Henley-on-Thames, Oxfordshire, UK: World Advertising Research Center (WARC).
- Gardberg, N.A. & Fombrun, C.J. (2002). "The Global Reputation Quotient Project: First Steps towards a Cross-Nationally Valid Measure of Corporate Reputation", *Corporate Reputation Review*, Vol. 4, No. 4, pp. 303-307.
- Gobé, M. (2001) *Emotional Branding: The new Paradigm for Connecting Brands to People*. New York: Allworth Press.
- Goldberg, M.E., & Hartwick, J. (1990). "The Effects of Advertiser Reputation and Extremity Claim on advertising Effectiveness", *Journal of Consumer Research*, Vol. 17, September, pp. 172-179.
- Goldsmith, R.E., Lafferty, B.A., & Newell, S.J. (2000). "The Impact of Corporate Credibility and Celebrity Credibility on Consumer Reaction to Advertisements and Brands", *Journal of Advertising*, Vol. 29, No. 3, pp. 43-54.
- Goodchild, J., & Callow, C. (2001). *Brands - visions and values*. Chichester: John Wiley and Sons Ltd.
- Gotsi. M., & Wilson, A.M. (2001). "Corporate reputation: seeking a definition", *Corporate Communications*, Vol. 6, No. 1, p. 24.
- Gray, E.R. & Balmer, J.M.T. (1998). "Managing image and corporate reputation", *Long Run Planning*, Vol. 31, No. 5, pp. 685-692.
- Gregory, J.R. (2001). *Branding Across Borders*. New York: McGraw-Hill.
- Grunig, J.M. (1993). "Image and substance: from symbolic to behavioural relationships", *Public Relations Review*, Vol. 19, No. 2, pp. 121-139.
- Grönroos, C. (1982). *Strategic Management and Marketing in the Service Sector*. Research Report, No. 8. Helsinki, Finland: Swedish School of Economics and Business Administration.

- Grönroos, C. (1990). *Service Management and Marketing: Managing the Moment of Truth in Service Competition*. Lexington, Massachusetts: Lexington Books.
- Grønholdt, L., & Martensen, A. (2004). Validating and applying a customer-based brand equity model. *Proceedings of the 33rd EMAC Conference, Murcia, 18-21 May 2004*. Murcia, Spain: Marketing Department, University of Murcia.
- Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. (1998). *Multivariate Data Analysis* (Fifth edition). Upper Saddle River, New Jersey, USA: Prentice-Hall.
- Harris, F. & de Chernatony, L. (2001). "Corporate branding and corporate brand performance", *European Journal of Marketing*, Vol. 35, No. 3/4, pp. 441-456.
- Hatch, M.J. & Schultz, M. (2001). "Are the strategic stars aligned for your corporate brand?", *Harvard Business Review*, Vol. 79, No. 2.
- Hutton, J.H. (1996). "Integrated Marketing Communication and the Evolution of Marketing Thought", *Journal of Business Research*, Vol. 37, pp. 155-162.
- Ind, N. (1997). *The Corporate Brand*. London: MacMillan Press.
- Ind, N. (1998). *Making the Most of your Corporate Brand*. London: Financial Times Management.
- Jacobsen, G. (1999). *Branding i et nyt perspektiv - mere og andet end mærkevarer*. Copenhagen, Denmark: Copenhagen Business School (CBS) Press (in Danish).
- Johnson, M.D. (1998). *Customer Orientation and Market Action*. Upper Saddle River, New Jersey, USA: Prentice Hall.
- Johnson, M.D. & Gustafsson, A. (2000) *Improving Customer Satisfaction, Loyalty, and Profit: An Integrated Measurement and Management System*. University of Michigan Business School Management Series. San Francisco, California: Jossey-Bass Inc.
- Kapferer, J.N. (1997) *Strategic Brand Management – Creating and Sustaining Brand Equity Long Term* (Second edition). Kogan Page.
- Keller, K.L. (2000). "Building and Managing Corporate Brand Equity". In M. Schultz, M.J. Hatch & M.H. Larsen (Eds.) *The Expressive Organization: Linking Identity, Reputation, and the Corporate Brand* (pp. 115-137). Oxford, England: Oxford University Press.
- Keller, K.L. (2001a). *Building Customer-Based Brand Equity: A Blueprint for Creating Strong Brands*, Working Paper, Report no. 01-107. Cambridge, Massachusetts, USA: Marketing Science Institute (MSI).
- Keller, K.L. (2001b). "Building Customer-Based Brand Equity". *Marketing Management*, Vol. 10, No. 2, pp. 15-19.
- Keller, K.L. (2003). *Strategic Brand Management: Building, Measuring, and Managing Brand Equity* (Second Edition). Upper Saddle River, New Jersey, USA: Pearson Education, Prentice Hall.
- Keller, K.L., & Lehmann, D.R. (2002). *Measuring Brand Equity*. Working Paper. Hanover, New Hampshire: Dartmouth College.
- Kennedy, S.H. (1977). "Naturing corporate images: total communication or ego trip?", *European Journal of Marketing*, Vol. 11, No. 3, pp. 120-164.
- Knox, S., & Maklan, S. (1998). *Competing on Value: Bridging the Gap Between Brand and Customer Value*. London: Pitman.
- Krishnan, H.S. (1996). "Characteristics of memory associations: a consumer-based brand equity perspective", *International Journal of Research in Marketing*, Vol. 13, pp. 389-405.
- Kunde, J. (2001). *Unik nu – eller aldrig: brand'et driver virksomheden i den nye værdiøkonomi*. Copenhagen: Børsens Forlag (in Danish).

- LaBarbera, P.A. (1982). "Overcoming a no-reputation liability through documentation and advertising regulation", *Journal of Marketing Research*, Vol. 19, May, pp. 223-228.
- Lafferty, B.A., & Goldsmith, R.E. (1999). "Corporate credibility's role in consumers' attitudes and purchase intentions when a high versus low credibility endorser is used in the ad", *Journal of Business Research*, Vol. 44, No. 2, pp. 109-116.
- Laroche, M., Kim, C., & Zhou, L. (1996). "Brand Familiarity and Confidence as Determinants of Purchase Intention: An Empirical Test in a Multiple Brand Context", *Journal of Business Research*, Vol. 37, October, pp. 115-120.
- MacKenzie, S.B., & Lutz, R.J. (1989). "An Empirical Examination of the Structural Antecedents of Attitude-toward-the-ad in an Advertising Pretesting Context", *Journal of Marketing*, Vol. 53, April, pp. 48-65.
- Markwick, N. & Fill, C. (1997). "Towards a framework for managing corporate identity", *European Journal of Marketing*, Vol. 31, No. 5/6.
- Martensen, A. & Grønholdt, L. (2003). "Understanding and Modelling Brand Equity". *The Asian Journal on Quality*, Vol. 4, No. 2 (December), pp. 73-100.
- Martensen, A. & Grønholdt, L. (2004a). "Measurement and management of brand equity". In: Neely, A., Kennerley, M. & Walters, A. (eds) *Performance Measurement and Management: Public and Private – Papers from the 4th International Conference on Performance Measurement and Management – PMA 2004, Edinburgh, UK, 28-30 July 2004* (pp. 635-642). Cranfield, UK: Performance Measurement Association (PMA) and Centre of Business Performance, Cranfield School of Management, Cranfield University.
- Martensen, A. & Grønholdt, L. (2004b). "Building Brand Equity: A Customer-Based Modelling Approach". *Journal of Management Systems*, Vol. 16, No. 3.
- Mason, C.J. (1993). "What image do you project", *Management Review*, No. 82, November, pp. 10-16.
- Melewar, T.C. & Jenkins, E. (2002). "Defining the corporate identity construct", *Corporate Reputation Review*, Vol. 5, No. 1.
- Murphy, J.M. (1992). *Branding: A Key Marketing Tool*. Second Edition. London: MacMillan.
- Olins, W. (1990). "The corporate search for identity", *Harvard Business Review*, Vol. 68, No. 5
- Olins, W. (1995). *The new guide to identify: how to create and sustain change through managing identity*. Aldershot, UK: Gower Publishing.
- Olins, W. (1999). *Trading identities: Why countries and companies are taking on each others' roles*. London.
- Olins, W. (2000). "How brands are taking over the corporation". In M. Schultz, M.J. Hatch & M.H. Larsen (Eds.) *The Expressive Organization: Linking Identity, Reputation, and the Corporate Brand*. Oxford, England: Oxford University Press.
- Olins, W. & Morgan, C.L. (1995). *International Corporate Identity, 1*. London: Laurance king Publishing.
- O'Sullivan, T. (1983). *Key Concepts in Communication*. London: Methuen.
- Pelsmacker, P., Geuens, M. & van den Bergh, J. (2004). *Marketing Communications: A European Perspective*. Second edition. Harlow, England: Financial Times Prentice Hall, Pearson Education.
- Perrier, R. (1997). *Brand valuation* (Third edition). London: Premier Books.
- Robinson, J.P., Shower, P.R., & Wrightsman, L.S. (1991). "Criteria for Scale Selection and Evaluation". In J.P. Robinson, P.R. Shower & L.S. Wrightsman (Ed.) *Measures of Personality and Social Psychological Attitudes*. San Diego, California: Academic Press.

- Rust, R.T., Zahorik, A.J., & Keiningham, T.L. (1996). *Service Marketing*, New York: HarperCollins College Publishers.
- Rust, R.T., Zeithaml, V.A., & Lemon, K.N. (2000). *Driving Customer Equity: How Customer Lifetime Value Is Reshaping Corporate Strategy*. New York: The Free Press.
- Schmitt, B. (1999). "Experiential Marketing", *Journal of Marketing Management*, Vol. 15, pp. 53-67.
- Smith, S. & Wheeler (2002). *Managing the customer experience: turning customers into advocates*. Harlow, UK: Financial Times Prentice Hall.
- Stuart (1998). "...", *Journal of Communication Management*, Vol. 2, No. 4.
- van Rekom, J. (1997). "Deriving an operational measure of corporate identity", *European Journal of Marketing*, Vol. 31, No. 5/6.
- van Riel, C.B.M. (1995). *Principles of Corporate Communication*. London: Prentice Hall.
- van Riel, C.B.M., Maathuis, O.J.M., & Stroecker, N.E. (1998). "Measuring corporate images". *Corporate Reputation Review*, Vol. 1, No. 4, pp. 313-326.