LAPPEENRANTA UNIVERSITY OF TECHNOLOGY
Department of Business Administration
International Marketing

WEB PRESENCE BUILDING AND PERFORMANCE MEASURING IN BUSINESS-TO-BUSINESS MARKETS

The subject of the thesis has been approved by the Department Council of the Department of Business Administration on December 14th 2004

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Heidelberg, February 28th 2005

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ABSTRACT

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Title: Web Presence Building and Performance Measuring in Business-to-Business Markets
Department: Department of Business Administration
Year: 2005

Master's Thesis. Lappeenranta University of Technology. 122 pages, 35 figures, 3 tables, 1 appendices.

Examiner: Sami Saarenketo, Sanna Sundqvist
Key Words: Web Presence, Web Presence Building, Web Presence Performance, Internet Marketing
Hakusanat: Internet toiminta, internet toiminnan rakentaminen, internet toiminnan mittaaminen, internet markkinointi

The purpose of the thesis was to examine the different phases of web presence building and the measuring of its performance. It examined the web presence building process through a step model. This model consists of the five steps of evaluation, strategy formulation, plan, blueprint, and implementation. To complement the evaluation and implementation steps the benefits (CRM, communication, sales, and distribution channels benefits from a marketing perspective) of web presence were presented. They also help performance measuring. For evaluation important is also the stage model of web presence. It establishes a storefront, dynamic, transaction, and e-business stages.

Various success characteristics for web presence performance were found. Theses characteristics are quality content, interest, entertainment, informativeness, actuality, personalization, trust, interactivity, usability, convenience, loyalty, performance, responsiveness, and user information gathering. The measures were divided into activity, behavioral, visitor, and conversion rate measures. In addition there were other measures and success indicators. These different elements and measures of success were brought together in a new performance evaluation model.

In the empirical part of this thesis the theories were mirrored in the case of ABB (and within ABB especially the ABB Stotz-Kontakt) through company internal and external document analysis as well as interviews. This part illustrated the theories in practice. The theories of the thesis were found to be amplifiable. The step model can be applied also in the development of web presence, and the stage model in the evaluation of current web presence. The measures found for the web presence performance need still improvement and more studies. Preferably the measures would be more tightly interwoven with overall business performance.

TIIVISTELMÄ

Tekijä: Kirsi Timonen
Nimi: Internet toimintojen rakentaminen ja menestyksen mittaaminen Business-to-Business yrityksessä
Osasto: Kauppatieteiden osasto
Vuosi: 2005

Pro Gradu - tutkielma. Lappeenrannan Teknillinen Yliopisto. 122 sivua, 35 kuvaa, 3 taulukkoa, 1 liite(ttä).

Tarkastaja: Sami Saarenketo, Sanna Sundqvist
Hakusanat: Internet toiminta, internet toiminnan rakentaminen, internet toiminnan mittaaminen, internet markkinointi
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Tutkimuksen tavoite oli selvittää yrityksen web toiminnan rakentamisen vaiheita sekä menestyksen mittaamista. Rakennusprosessia tutkittiin viisiportaisen askelmallin avulla. Mallin askeleet ovat; arviointi, strategian muotoilu, suunnitelma, pohjapiirros ja toteutus. Arviointi- ja toteutusvaiheiden täydentämiseksi sekä erityisesti myös internet toiminnan onnistumisen mittaamisen avuksi internet toiminnan hyödyt (CRM, kommunikointi-, myynti-, ja jakelukanava hyödyt markkinoinnin kannalta) käsiteltiin. Toiminnan menestyksen arvioinnin avuksi esiteltiin myös porrasmalli internet toimintaan. Porrasmalli määrittelee kauppakulissi-, dynaaminen-, transaktio- ja e-businessportaat.

Tutkimuksessa löydettiin menestystekijöitä internet toimintojen menestykselle. Nämä tekijät ovat laadukas sisältö, kiinnostavuus, viihdyttävyys, informatiivisuus, ajankohtaisuus, personoitavuus, luottamus, interaktiivisuus, käytettävyys, kätevyys, lojaalisuus, suoriutuminen, responssiivisuus ja käyttäjätiedon kerääminen. Mittarit jaettiin tutkimuksessa aktiivisuus-, käyttäytymis- ja muunnosmittareihin. Lisäksi muita mittareita ja menestysindikaattoreita esiteltiin. Nämä menestyksen elementit ja mittarit koottiin yhteen uudessa internet toimintojen menestyksenarviointimallissa.

Tutkielman empiirisessä osuudessa, esitettyjä teorioita peilattiin ABB:n (ABB:n sisällä erityisesti ABB Stotz-Kontakt) web toimintaan. Apuna olivat dokumenttianalyysi sekä haastattelut. Empiirinen osa havainnollisti teoriat käytännössä ja toi ilmi mahdollisuuden teorioiden laajentamiseen. Internet toimintojen rakentamismallia voidaan käyttää myös web toimintojen kehittämiseen ja porrasmalli sopii myös nykyisten internet toimintojen arvioimiseen. Mittareiden soveltaminen käytännössä toi kuitenkin ilmi tarpeen niiden kehittämiseen ja aiheen lisätutkimukseen. Niiden tulisi olla myös aiempaa tiiviimmin liitetty kokonaisvaltaisen liiketoiminnan menestyksen mittaamiseen.

Acknowledgements

I would like to take the chance to thank ABB Stotz-Kontakt for their cooperation and my colleagues for providing a nice work atmosphere. An especial thank you goes to my supervisor at ABB Mr. Volker Biewendt.

I also want to thank my supervising professors Sanna Sundqvist and Sami Saarenketo for their support even from a distance. Your ideas and comments were a great help and of great value.

My biggest gratitude belongs to my family for being there for me always. My journeys have taken me to many places but my home stays with you. A thank you also belongs to my friends who have been my family on the road.

LIST OF SHORTINGS

B2B	Business-to-Business
B2C	Business-to-Consumer
CA	Competitive Advantage
CAWP	Common ABB Web Platform
CIC	Customer Interaction Cycle
CPM	Cost Per Thousand (Impressions)
CRM	Customer Relationship Marketing
CWE	Customer Working Environment
eCRM	Electronic Customer Relationship Marketing
EDI	Electronic Data Interchange
ERP	Enterprise Resource Planning
FAQ	Frequently Asked Questions
IP-address	Internet Protocol Address
KM	Knowledge Management
ROAM	Return on Assets Managed
ROI	Return on Investment
OEM	Original Equipment Manufacturer (of Electronic Equipment)
OMS	Operating Management System
URL	Uniform Resource Locator
VAA	Value Added Applications

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1. INTRODUCTION

The business-to-business (B2B) community has been no stranger to facilitating business processes through electronic solutions. From the first days of Electronic Data Interchange (EDI) the simple point-to-point connection has moved to EDI over value added networks, to WebEDI, and internetEDI. More recently e-procedurements and e-catalogs have moved business into a whole new level. (Gordon: 277-318; Huizingh, 2002b) And no wonder since new technological advances, mainly the internet, allows business processes and operations to be done in seconds instead of days or weeks (Rodgers, Chou & Yen, 2002). So it is understandable that for quite some years internet has been the hype within the business community. Web sites, web portals, online marketing, e-commerce, e-business, e-procedurements and so on have been seen as the new revolutionary ways of doing business. Especially the marketing and sales functions from the seller's side were thought to change dramatically due to this revolution. Many also assumed the Internet would change everything, even the old rules about companies and competition (Powell, 1999).

Little by little the truly revolutionary edge of the internet has turned into a more evolutionary one. Marketing still stays marketing. (Barowski & Müller, 2000: 7) Business (whether traditional or pure e-business) is all still about creating more customer value than the competitors, managing customer relationship and at the end getting the order and selling the product. Creating simply a web presence did not miraculously grow sales. Obviously moving a company into the electronic environment is more complex than that. There has been though a lack in the use of specific, measurable objectives of web presence activities (Benoy, Cook & Javalgi, 2001).

In reality much is done in the field of the e-world. The trend of growing efforts in e-environment still continues despite the downfall of the initial

excitement. Unfortunately the decisions taken in companies regarding anything that has something to do with stepping into the e-age has had very little theoretical base and is done mostly on a gut feeling or intuition (Dedrick & Kraemer, 2002).

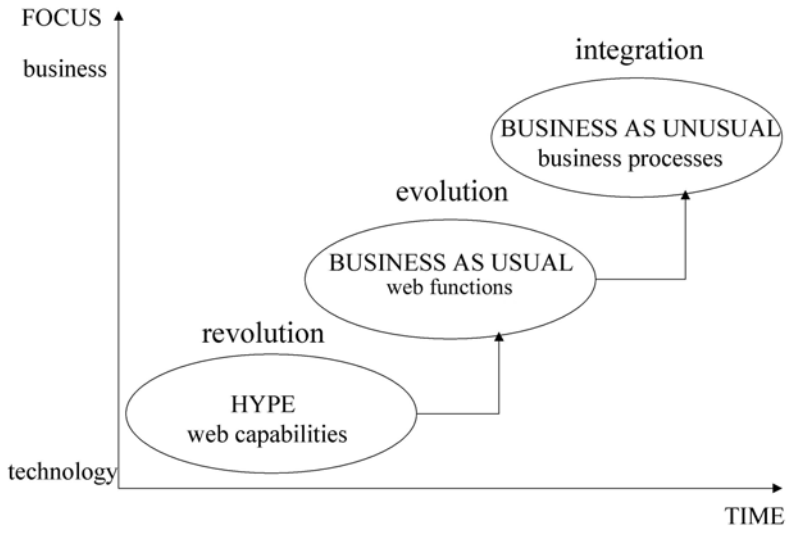

Figure 1 Evolution of Internet Focus (modified from Huizingh, 2002a)

So the focus of how internet is seen has changed from the hype (revolutionary) of the 1995 to business as usual (internet is merely just another tool to do the same thing as before but in a more efficient way) in the end of 1990s and more recently to business as unusual (internet is means to an end – integration of internet with business processes) (Huizingh, 2002a). The shift is illustrated in figure 1. In the first (pre-hype) phase it was all about creating web presence through a web site, in the second (hype and beginning of business as usual) phase it was about buying and selling through web presence, and the current (business as usual and business as unusual) it is all about how web presence can increase profitability (Kalakota & Robinson 2001: 3-4).

This shift has also meant that internet is seen as an enabling technology as a part of the strategy – the “e-business strategy”, being a part of the whole company strategy instead of being a separate entity from it (Porter, 2001). Web presence is becoming an integrated

element in companies' business processes (Huizingh, 2002b). This is the real revolution of the internet (Economist, 1999).

1.1 Background

The online volume was forecasted to grow 20-fold between 2000 and 2005. New business models were expected to take a great share of this growth. This dot-com bubble did burst eventually and the B2B exchange was among the hardest hit. (Jap & Mohr, 2002) The big predictions fell.

Now that the hype of the revolutionizing internet has settled down the concern is shifting towards managing the opportunities and impacts of stepping into the electronic world, instead of just being there. This means realizing the true potential of web presence and making the efforts more effective. Web presence has moved from a simple storefront into an integrated value-adding tool and from a separate function to an integrated part of other functions. (Hoye, 1998) The predictions on a huge shift in customer buying preferences from bricks-and-mortar to clicks-and-order have not fulfilled. What has become obvious instead, is that buyers prefer their existing interactions. What they want from technology is to make those interactions more efficient. (Kharif, 2003) Companies want technology to support the core business and to help grow sales (Schwartz, 2003).

Some even have taken a step further and seen internet as nothing new anymore apart from the technology itself. Since conceptually it is no longer new or challenging, the emphasis has moved from the product (internet) to the customer (enabled with more power) (Dowding, 2001). For marketing the biggest change is moving from an agent to the seller to being a consultant of the customer (Achrol & Kotler, 1999).

But internet is not just another sales channel no different from traditional channels, merely creating access to new markets and customers. It does posses unique characteristics that need to be identified and understood, for business processes to be changed and aligned accordingly (Amit, Donlevy & Zott, 2000).

Despite all the skepticism, studies have proved that web presence enhances business performance in terms of sales performance and efficiency. It affects both total sales and net profit margins. (Avlonitis & Karayanni, 2000) What makes the creation of successful B2B online-strategies difficult is the inexperience (on both the seller and the buyer side), fragmentation of technologies and solutions, long implementation, finding ways to create activities that truly add value not just to the customers but all parties involved, and ways to decrease customer search and selection cost. Acquiring the technology is easy but it is more complicated capitalizing on it. (Jap & Mohr, 2002)

Because of the newness of this e-phenomenon there is still a great deal of untouched research field. Especially the B2B side is lacking theoretical models in comparison to the business-to-consumer (B2C) side of how companies should proceed with its efforts on the internet. Though this bias towards B2C exists the impacts of the internet are bigger in the B2B market (Chaston & Mangles, 2003) and so the volume of B2B online-trade has more potential than the B2C (Barowski & Müller, 2000: 79).

The B2B sector is still optimistic with its ventures in the e-environment – it just looks the web presence building with more critical eyes now. The focus is on the real achievable benefits of web presence such as enhanced customer support and service, improved internal efficiencies, and increased revenue through more effective marketing. (Hamill & Stevenson, 2002)

The intention of the thesis is to shed some light on how a company should build its web presence. It investigates what theoretical models exist for building a successful web presence, what determines the success of web presence and how this success is possible to measure. The case of ABB is presented to illustrate how they have built their web presence, what they see are the important success factors, and how they measure their success to see how these theories apply in reality.

1.2 Research Problem

The **research problem** of the thesis is:

- How to build a web presence and measure its success in B2B markets?

The **theoretical sub questions** within this research problem are as follows:

- How are the steps of web presence building defined?
- How are the stages of web presence defined?
- How does web presence bring benefits?
- How is a successful web presence defined?
- How is the success of a web measured?

The **empirical sub questions** in reflection to the theoretical are:

- How do the web presence building steps apply?
- How applicable is the stage model?
- How the benefits apply in the B2B setting?
- How to measure web presence performance?

1.3 Delimitations

As this thesis concentrates on web presence from a marketing point of view it leaves out the effects it has on other functions of a company's value chain. The parts of the value chain that are important to this thesis are Marketing and Sales, and After-Sales Services (see figure 2).

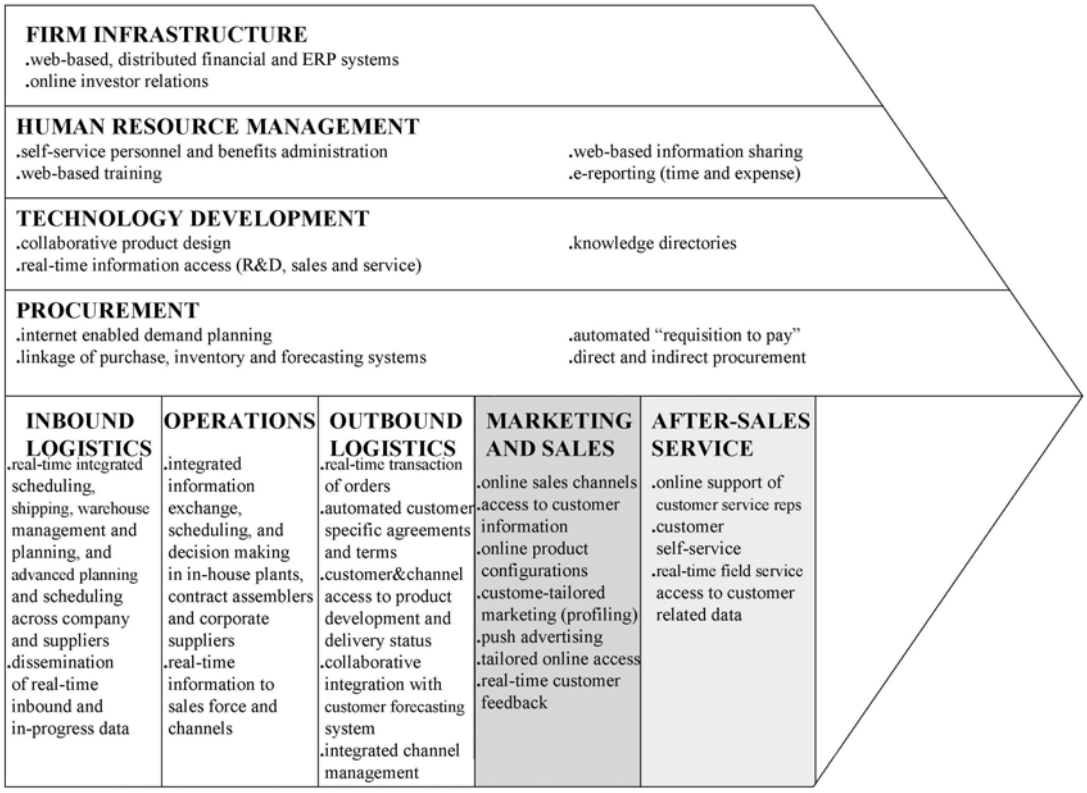

Figure 2 Prominent Applications of Internet in Value Chain (Porter, 2001)

The thesis also focuses on the B2B side of web presence and leaves therefore the B2C side out of the scope of research. It should be remembered though that both of these sides also have some aspects in common. This means some parts of the thesis are applicable to both B2B and B2C environments with caution. Also some theories, ideas, and observation from the B2C world are applied to this thesis but in a minimal extent.

This thesis addresses different topics from marketing (like Customer Relationship Management (CRM), and Marketing Mix) that are tied to web presence. They are viewed only from the standpoint of web presence. This means that other issues regarding these topics are therefore not dealt. On these issues this thesis does not provide a holistic view. Remembering the focus of the thesis on web presence is that not even the purpose of it.

1.4 Theoretical Framework

Figure 3 illustrates how web presence relates in the overall corporate setting. Web presence strategy is a part of the corporate strategy that interacts with all the other strategies. This thesis concentrates on the web presence strategy and its interaction with the marketing strategy. It leaves out the overlapping areas with other strategies.

Figure 3 Web Presence inside Corporate Strategy

Within this setting of corporate, marketing, and web presence strategies the concept framework is build. The overlapping area of corporate, marketing, and web presence strategy is where this thesis borders itself.

The thesis can roughly be divided into two main themes. These themes are the building of web presence and the measuring of web presence

performance. They are interwoven concepts (see figure 4). The web presence building process leads to the actual web presence and its performance is determined through measures. The measures of the web presence and the benefits from it are defined by the objectives set for it. The performance also links to the building process of web presence as results (of metrics used) reinitiate it. This gives a circular nature as the web presence are defined and redefined in the light of the results of the measures on the performance.

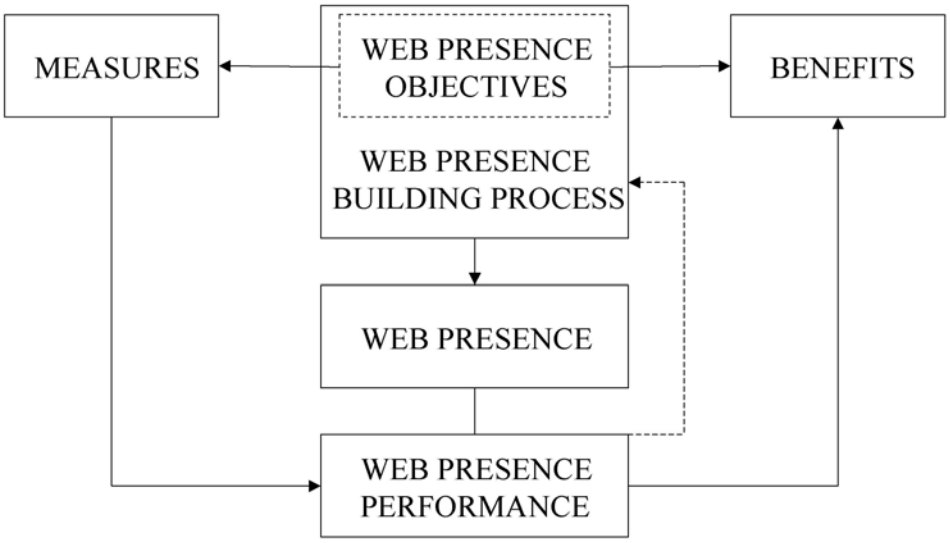

Figure 4 Thesis Framework

The benefits of web presence are to CRM, Customer Service and to the Marketing Mix. The building process withholds the web presence strategy as it is formulated during this process. The objectives of web presence are highlighted from the building process to illustrate the part of the building process that especially influences the measure and the benefits.

1.5 Definitions

In all of the following definitions it should be remembered that they are done to serve the purpose of the thesis. Though wider and/or different

definitions of these concepts exist they are here restricted to their web presence aspects.

B2B

Business-to-business means the trade between two companies – inter-company sales and supply (Siebert, 1999: 112; Merz, 1999: 21). This means that both the buyer and the seller are organizations (Anonymous, 2004b).

Web Presence

Web presence withholds all the web actions a company engages in. In this thesis these actions are limited though for those done because of marketing reasons towards the customer (therefore leaving out for example the employee, shareholder or other stakeholder aimed actions). Web presence means anything between mere static and virtual storefront to electronic or dynamic catalogues to interactive portals (Benoy et al., 2001).

E-commerce is often used in the sense that it implies the purchase of goods or services (Anonymous, 2004a) it can be said to include all the electronic supporting activities that aim for a commercial transaction meaning buying and selling (Merz, 1999: 18; Rodgers et al., 2002). E-commerce and e-business are commonly used as synonyms, but e-business is a wider term. E-business is the interconnectivity and interaction between systems whether inside or outside the company. It connects extended organization including employees, suppliers, clients, and other stakeholders. (Rodgers et al., 2002)

E-business is often used as an umbrella term for all web presence (Anonymous, 2004a). In this thesis though is web presence defined as an umbrella term for e-business and all other web actions.

Web Presence Strategy

A web presence strategy addresses the ways internet reshapes a company and how it can be used to gain competitive advantage (CA) (Cagliano, Caniato & Spina, 2003). It identifies the business models for creating value through web presence (Amit et al., 2000). Web presence strategy is part of the company or corporate strategy rather than being separate from it. It spells out how the internet technology is tailored to the needs of the corporate strategy. (Porter, 2001)

Here web presence strategy includes the concepts of e-commerce strategies, e-business strategies, internet strategies, and web strategies as an umbrella definition.

CRM

CRM is the building and managing of a long-term business relationship with a customer. With the aid of CRM a company can better response to the needs of the customer and create greater value, making the established relationships stronger, and using sales/marketing efforts more efficiently. (Greco & Johnson Ragins, 2003) These actions aim to increased profitability (Plessis & Boon, 2004). CRM is created through accessibility, relevancy and constant dialogue (Godfrey & Walsh, 2000). eCRM uses the internet to identify, attract, and retain most valuable customers to create profit (Hamid & Kassim, 2004).

This thesis applies CRM only to web presence, leaving other aspects of it outside of the scope. That means that this thesis deals only those parts of CRM that interact with web presence. Electronic interaction can include emails; web site and its Frequently Asked Questions (FAQ); self-help applications; remote help centers for sales and after sales support; and technical support and service (Caldwell, 2000).

Customer service

Customer service is a part of CRM. In a broad sense it means identifying and understanding the unique desires of a customer. (Godfrey & Walsh, 2000)

Customer service means the supporting activities offered during and after the actual sale to enhance the satisfaction of the customer (Anonymous, 2004b). In this thesis the focus is on the activities offered or enhanced through web presence.

Marketing Mix

Marketing Mix is the controllable tactical marketing tools used to generate the intended response from the target market. These tools are product, price, place, and promotion. (Anonymous, 2004c) For this thesis Marketing Mix is important in only how web presence shapes it.

1.6 Literature Overview

General investigations on the effects of the internet on economy have been conducted by e.g. Achrol and Kotler (1999), and Morrison and Wise (2000). The influence internet places on the relations of markets and interaction has been another popular topic, by those like Kharif (2003), Schwartz (2003), and Senn (2000). The ideas of network economy and value networks have been very present in the web presence studies e.g. Kothandaraman and Wilson (2001). The concepts of “e-business”, “e-strategy”, and “new economy” are though some what confusing terms that overstate the impact of the internet on the rules of business making and market forces. They also isolate everything regarding to the “e” from the rest. (Porter, 2001)

The literature on Internet Marketing has been fragmented. Most of the research done until now has focused on the management, planning and strategy of web presence, consumer behavior, and distribution channels. (Ngai, 2003) A lot of research has been done regarding the benefits of web presence to marketing like Hoye (1998) and the impacts it has on marketing issues such as the 4P's by Allen and Fjermestad (2001), and Myfanwy and Riyad (2002). They describe the attributes of the internet in regards to product, place, promotion, and price and how they change the nature of these 4P's. They deal with the benefits and disadvantages that internet creates for these elements of marketing. Attention especially on the promotion from the 4P's has been placed. Many studies find the advantages of the internet (web presence) to be greatest in providing a new communication channel e.g. Deeter-Schmelz and Kennedy (2002). These studies have also intended to find ways to leverage the benefits. They tie the internet studies into old existing marketing theories.

Great interest as a study topic has also been the opportunities web presence creates for CRM, Jap et al. (2002), and Greco and Johnson Ragins (2003). They present the specific benefits and applications of internet on CRM and so also in part on Customer Service. They concentrate on how the internet can be used to the advantage in this area of marketing.

Some also touch the web presence building process but even those mainly deal with the success factors (Abdel, Myfanwy & Riyad, 2002) – studies by Chackraborty, Lala and Warren (2003), Karayanni and Baltas (2003), Pinsley (2002), and Abdel et al. (2002). They do not present a model for building web presence but rather state the issues that need to be taken into consideration in the building process. They also present elements that are typical for a successful web presence and so only provide snapshots of the phenomena.

Quite a vast amount of studies is available on web presence strategies and using web presence as a strategic tool, for example Benoy et al. (2001), and Dowding (2001). Many present strategic models or business models for web presence like Brunn, Jensen and Skovgaard (2002), and Amit et al. (2000). They emphasize the integration of web presence into the overall company or corporate strategy. The real revolution of the internet is not the virtualization of a company but instead the transformation of bricks-and-mortars to bricks-and-clicks (Economist, 1999).

Very little research is done in the field of measuring the success of web presence. In many cases the measuring is bypassed by stating a company should decide by itself on the appropriate measures to use (Kalakota & Robinson, 2001: 493), which in part is certainly true. Also in practice the companies lack specific, measurable objectives. Commonly accepted and deployed measuring standards are missing in web presence performance literature. (Benoy et al., 2001) The literature of web presence performance is at its very early stages (Huizingh, 2002b). The studies emphasize the need for measures but few provide actual hands on answers. A big part of studies in the field of web presence performance are single case studies (Huizingh, 2002b). Some studies have tried to bridge this gap among them Agarwal and Venkatesh (2002).

There is though the necessity to create some guidelines for this. Also now that the internet hype has somewhat settled down there is a need to materialize the effects of web presence instead of going round and about it by abstract intangible statements. Therefore the thesis tries to focus more on the evaluation of the web presence success than previous studies.

1.7 Method of Research

This thesis is a qualitative research. A qualitative research aims to illuminate, understand, and extrapolate similar situations that numerically cannot be quantified (Hoepfl, 1997) and to accumulate theoretical insights for new theories and question old ones. This is done through understanding and describing the context of the phenomenon and its dynamics as close as possible. (Dyer, Eisenhardt & Wilkins, 1991)

In the B2B environment of multiple influencing contextual variables it is difficult to get a picture of the entire process through a survey design (quantitative research). Multiple informants raise new questions while addressing one problem, as they each view partial pictures of the same phenomenon. (Johnston, Leach & Liu, 2000) Since a qualitative research design is more suitable to a B2B context and since this thesis is looking at web presence from a B2B viewpoint is the selection of a qualitative research design justified.

In a case study the phenomenon is investigated in its real world context. No isolation is made since the relational context is of equal interest as the phenomenon itself and there is insufficient control of the variables of a B2B phenomenon. Also the number of sampling units that would constitute for a quantitative research becomes easily unmanageable. The strength of case research is the ability to combine various sources of evidence and triangulation to support the theory. (Johnston et al., 2000) This kept in mind choosing qualitative research methods makes sense for the topic of the thesis – more precisely a case study method.

Qualitative research is not well suited for correlation hypotheses. They require quantitative research. That is why research questions differ between qualitative and quantitative research. Hypotheses that are

better suited for qualitative research include proposition of the existence of a phenomenon, the presence or absence of a phenomenon under certain conditions or hypotheses of longitudinal nature. Making “how” and “why” questions are better suited for case studies as opposed to “what” questions, which are suited for all study methods. (Johnston et al., 2000; Yin, 1994: 4-7) In the light of the previously stated research questions (both the theoretical and empirical sub questions being “how” questions as well as the main research question) is the selection of qualitative research method further reinforced, in particular a case study.

Research design is guided by the research hypothesis. Research design is the definition of the unit of analysis, selection of appropriate case or cases, and decision of what data and how to collect it. (Johnston et al., 2000) The researched phenomenon of this thesis (web presence in B2B markets from a marketing point of view) requires first of all the unit to be a department that engages in marketing activities online. Second it also needs to be a part of a company that operates in B2B markets. Even though evidence from a multiple case study is more robust (Johnston et al., 2000) is this thesis still a single case study because of its financial and timely constraints. ABB has been chosen as case company as it is a B2B company that has engaged in web presence activities since the enabling technology emerged. Within the ABB the department of Marketing/Communication of its Stotz-Kontakt division was chosen to narrow down the research efforts.

Main qualitative data collection techniques are interviews and observation but include also document analysis (Hoepfl, 1997). There are also observation techniques (participating and non-participating) but they are time consuming and access to these methods is difficult (see table 1). Document analysis is likely to be relevant to all case study topics and play an explicit role (Yin, 1994: 81). For this thesis interviews are a major data source. This applies especially for the step model of

web presence building but also to the web presence performance measuring. For the interviews, people most involved with the ABB Stotz-Kontakt web presence were selected. From the Marketing/Communication department Mr. Biewendt and Mr. Wolf were interviewed. No Product Managers were interviewed due to their limited knowledge on the web presence activities and due to the extensive knowledge Mr. Biewendt has on these issues. Also (according to Johnston et al., 2000) multiple informants only raise more questions instead of answering them. As a completing data source also document analysis is conducted. Data from the intranet and the ABB publications were used.

Table 1 Data Collection Methods for Case Study Development: Strengths and Weaknesses (Johnston et al., 2000)

METHOD	STRENGTHS	WEAKNESSES
Participant observation	- First-hand account and in-depth understanding. - Detailed assessment of interpersonal activities.	- Not appropriate in many situations. - Hard to gain access. - Time consuming. - Assessing objectivity difficult. - Potential for Hawthorn effects.
Observation	- First-hand account of events and the context of those events.	- Time consuming. - Hard to gain access. - Potential for Hawthorn effects.
Interviews	- Focus directly on the case study topic. - Provides perceived causal inferences.	- Need for systemically developed interview questions. - Inaccuracies from poor recall. - Potential for interviewees to provide interviewers with the answers they want to hear, or to provide socially acceptable answers.
Documentary evidence	- Produced outside of the research (objectivity). - Advantages from electronic communication to new forms of documentation. - Allows review across several years. - Can be obtained unobtrusively.	- Objectivity (what was the purpose of the document's author). - Access may be difficult or deliberately blocked.

The purpose of the theoretical section of this thesis is to explain the existing models and frameworks of web presence building. It intents to find the guidelines offered for successful development of web presence and how the success can be measured as presented in previous literature and study efforts. The theory section also explores the benefits (for marketing) of web presence since without understanding the possible benefits gained from it, is measuring success impossible.

The empirical section of the thesis mirrors the theories in practice through the case of ABB.

So the theoretical section helps to compare and contrast what is known of the researched phenomenon already with the results of the research. Theoretical review offers perspective to the phenomenon and together with other data and analysis offers through triangulation a better understanding. (Chenail, 1997) Through the case of ABB the applicability of the theories is tested.

The internal validity of research is measured in the ability to accurately describe a reality (from the multiple realities in the case of qualitative research). The external validity is measured by the extent to which generalizations can be made on the research. The reliability is the repeatability of the research. The qualitative research should be objective but in quantitative research subjectivity is difficult to avoid. (Hoepfl, 1997) To have internal validity is this thesis using various sources of information. Through triangulation this thesis has a strong internal validity. Information is gathered through interviews, data analysis, and theory. External validity – reliability is achieved by describing the empirical information used in the analysis of findings.

1.8 Structure of the Thesis

A rough structure of the thesis can be seen in table 2. It shows that the thesis begins with an introductory part that explains the background, definitions and limitations of it together with the research questions (chapter 1).

Further the thesis is divided into two parts. First there is the theoretical section that investigates the best practices of web presence building and analysis (chapter 2). It introduces the steps of web presence building and the stages of web presence. The next chapter (chapter 3)

leans already towards the evaluation of the success of web presence. Therefore it presents the possible benefits of web presence to help reflect success. They are also related to the stages of web presence of the previous chapter. For B2B marketing CRM is essential and tightly interwoven with web based actions it is therefore included together with Customer Service.

Table 2 Structure of Thesis

CHAPTER	RESEARCH QUESTION DEALT	KEY CONCEPTS
1. Introduction		
2. Building Web Presence	What are the steps of web presence building? What are the stages of web presence?	Web Presence Web Presence Strategy
3. Successful Web Presence	What are the benefits of web presence? What is the definition of a successful web presence?	CRM - CIC - Customer Service Marketing Mix - Marketing Channel - Sales Channel - Distribution Channel Success Characteristics
4. Measuring Success of Web Presence and Implications	What are the measures for web presence success?	Web Presence Measures
5. Summary		Web Presence Building Performance Evaluation
6. Web Presence at ABB		
7. Discussions	How do the web presence building steps apply? How applicable is the stage model? How the benefits apply in the B2B setting? How to measure web presence performance?	
8. Conclusions	**How to build a web presence and measure its success in B2B markets?**	Web Presence Building Performance Evaluation

The last theoretical chapter (chapter 4) presents existing success characteristics in a general level. Further it deals with the more concrete tools for measuring success and how the gathered information should be used.

In between the theoretical section and the empirical section of the thesis is the summary (chapter 5). It binds together the theoretical chapters before moving into the empirical section. In doing so it also clarifies the hypothesis.

The second part is the empirical section of the thesis. It focuses on web presence building and success of ABB (chapter 6). It mirrors against the presented theoretical part the empirical findings (chapter 7). Conclusions based on the entire thesis are offered at the end (chapter 8).

2. BUILDING WEB PRESENCE

To understand web presence building it first must be defined. Important is also to see how it affects the traditional marketing strategy/ marketing-mix. This is why this chapter concentrates initially on looking at what web presence is and how it can be seen through the 4Ps of marketing mix.

Web presence is a business model for optimizing and extending the business processes employed by a company to achieve its goals through the internet (Dowding, 2001). Web presence is not just an order-taking interface in an electronic form but it has informational content that adds value to customer (Abdel et al., 2002). Value is added to customer by aiding the activities of information search, product evaluation, service related problem solving, and facilitating transaction (Dess & Lumpkin, 2004). To the seller web presence facilitates marketing research by gathering intelligence on customers, competitors, and potential markets. It also reaches new markets, helps serve customers better, and distributes products faster, as well as communicates information (Benassi, Flaherty & Honeycutt, 1998).

Web presence also possesses characteristics as a sales and communication channel that make it unique among other channels. It has reach – connecting large number of players (or products), it is rich – enabling information flows in more than one direction, empowering all parties with knowledge, and it is also digital – making the physical contact absent. This is why web presence is an impersonal, electronic network that of course has its drawbacks. These drawbacks are mostly regarding trust creation. (Amit et al. 2000) It has both direct and indirect marketing form characteristics (Kiang, Raghu & Shang, 1999). In the marketing-mix web presence shapes all the 4Ps.

PRODUCT: The actual product or at least a part of it has been replaced by information (Allen & Fjermestad, 2001). The internet has widened the product concept for B2B companies that existed and made physical products before the internet revolution. The physical product still exists but the actual product package (the value adding components around the core product) has changed as a result. Web presence also creates a platform for product innovations and product development (Allen & Fjermestad, 2001; Roll, 1996: 60-61). Web allows customers to customize products themselves online to a provided extent (Brinschwitz, Nowara & Schott, 1997: 78-80). Product offering through web presence needs to be attractive to the customer targeted online and enough information has to be provided to them (Benassi et al., 1998).

PLACE: Place has become a more abstract concept and due to web presence, the reach is also broader. It is less of a constraint than before. (Allen & Fjermestad, 2001) Web presence can be a distribution channel directly (Benassi et al., 1998). Though for most products it makes more sense to use web presence as a sales channel instead of a distribution channel. They should be separate concepts (Roll, 1996: 46-47). Especially physical products need physical distribution channels and selling directly through web presence might not be possible for example in the case of complex products. The web presence can though serve a supporting role discussed later. Web presence also creates a new standard for availability and so also to customer service since 24/7 availability is expected (Godfrey & Walsh, 2001). The place has also become a more unimportant dimension in a way that the web presence can be accessed anywhere, at any time with just the right equipment.

PRICE: Web presence augments price competition and the standardization of prices (Ahlreep, Mocker & Mocker, 2000: 64; Allen & Fjermestad, 2001). This is because the market transparency has

increased. Because of the global nature of web presence though can pricing also become a more complex task (Roll, 1996: 62-66). Since many companies though have put a lot of effort on building tight, strategic relationships with business partners, is price only among many attributes (together with such as quality, timing of deliveries, and customization) that determine the overall value (Morrison & Wise, 2000). This is especially true in the B2B environment. The purchase decisions are more rational and the cost is viewed throughout the product life. For complex products that might also include customization it is impossible to display price information on the web presence. Important is still to stay competitive from the price point of view (Benassi et al., 1998).

PROMOTION: Web presence creates a new communication channel for marketing that is two-way, non-linear and more diverse than before (Roll, 1996: 67-70; Rowley, 2004). It enables the use of text, sound and video in an interactive and dynamic way (Bossart & Haite, 2000: 59). This creates an opportunity for unique and interactive promotion (Benassi et al., 1998). Product, price and place information as well as promotion is provided through web presence with a combination of benefits statements, hyperlinks and navigability – a customer-focused structure (Hoye, 1998). The role of the customer has also changed from a passive to an active information seeker as the role of the transmitter – the company, into a more passive one with less control over which information is available to its customers (Ahlreep et al., 2000: 65; Roll, 1996: 70-71). A company can certainly control the information it displays on its web presence but it has little control over what other organizations or even individuals display on theirs. The internet does not undermine though the role of personal contact for communication in the industrial buying environment (Deeter-Schmelz & Kennedy, 2001).

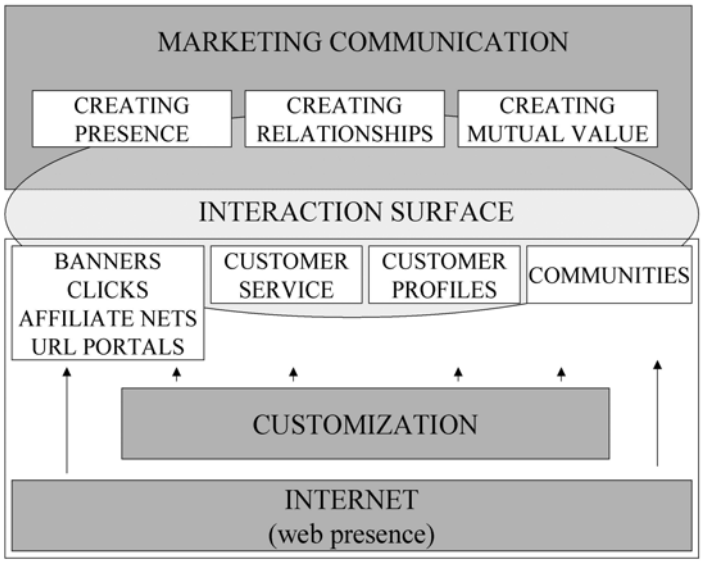

Figure 5 Interaction of Web Presence and Marketing Communication

Web presence and marketing communication create a mutual interaction surface. This surface is the activities of presence creating, relationship creating, and mutual value creating (see figure 5) (Rowley 2004). These activities are the key activities of CRM.

2.1 Steps of Building Web Presence

In starting the process of web presence building a company should ask “How..?” instead of “Should..?”. This means the integration of web actions should follow the already existing methodology. Technology itself does not create an advantage – it amplifies the processes and advantages possessed or planned. (Dowding, 2001) In today’s world a company has no choice but to engage in web activities at least in some level (Eliaz & Lichtenthal, 2003). It has become a standard like company brochures, catalogues, etc. A company is expected to have a web presence.

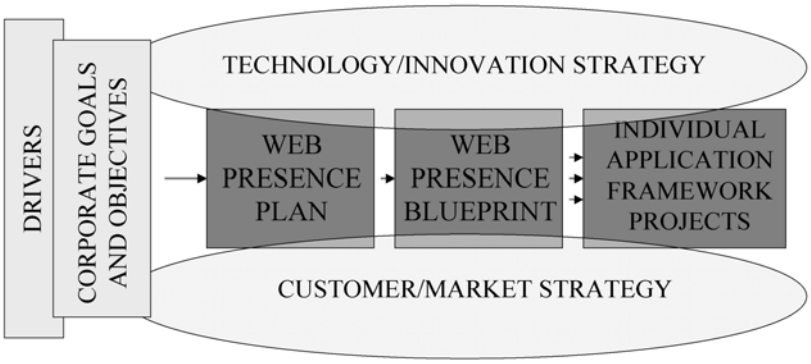

Figure 6 Strategy into Action (Kalakota & Robinson, 2001: 432)

A rough roadmap of how a web presence translates from strategy to action (see figure 6) means incorporating the different drivers into goals and objectives. They are integrated into existing strategies, and put to action through plan and blueprint. It is a simpler model for web presence building as the step model introduced.

An essential thing to remember in building a web presence is that it is the combination of online and offline activities that brings success. Important is the way they fit and play together. (Barowski & Müller, 2000: 114) Web presence is rarely built at once and more unlikely when building a very advanced web presence. It moves rather in phases and is more of an ongoing process in the company. (Bossart & Haite, 2000: 363-364) As the technology itself plus the ways it can be taken advantage of evolve, must the web presence keep up with this or even be ahead of it. Ultimately though is success often measured in how the integration of virtual and physical operations can be executed (Garino & Gulati, 2000).

To look closer at the building process a pyramid model is helpful. Web presence building moves from finding a goal, translating it into a strategy, creating a plan from it and refining it into a blueprint (technology plan) (see figure 7). Finally the blueprint needs to be implemented.

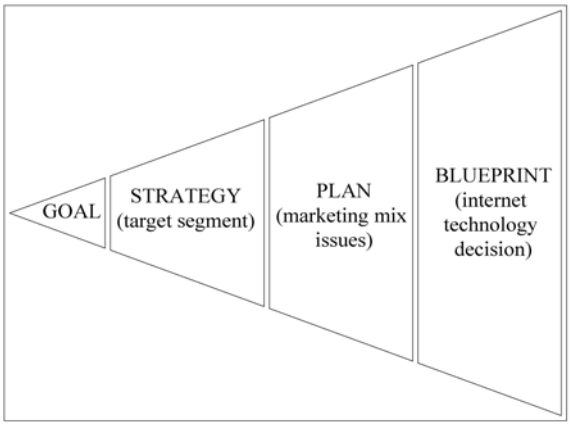

Figure 7 Web Presence Building Pyramid (modified from Brinschwitz, 1997: 142-155)

2.1.1 Evaluation Step

Now we can focus on the web presence building process itself. As stated before, instead of deciding whether or not to engage in internet activity, a company should rather focus on how to engage in it. This means a company should first think how it could benefit from web presence (Dowding, 2001).

There are some company characteristics that make the virtualization more obviously sensible. Especially for companies that have a wide variety of product offerings (the advantage being able to offer e-product catalogs), offer products that need to be accompanied with vast amount of information (the advantage being able to offer rich information), or their products are suitable only for diverse sales channels and/or have a wide spread customer base virtualization makes sense (Bossart & Haite, 2000: 87).

The customer focus is important in all marketing activity. So understanding the customers and how value can be added to them must be clear from the beginning (Krause, 1999: 225; 453). A rough evaluation should be done of the operation environment, industry trends, competitors, and of the abilities possessed currently and in the future. This is essential for idea screening. Idea screening is the

evaluation of ideas that decides which are real, from which can profits be created, and through which can CA be achieved. (Kalakota &Robinson, 2001: 396-408). In doing so an understanding of the applicability of the company to the e-world is achieved (Krause, 1999: 277-280; 457).

All these activities aim to a better understanding of the web presence potential and how with the resources and products the company has it can best be applied. This combined with the knowledge of the environment in which the company operates – customers and competitors, creates a holistic picture for evaluation. (Barowski & Müller, 2000: 98-109) The evaluation step correlates to the drivers, and company goals and objectives in the figure 6 and the tip of the pyramid – goal, in the figure 7.

2.1.2 Strategy Formulation Step

In the next step a strategy for the web presence is articulated. It should spell out what are the intended benefits to be achieved (Dowding, 2001). It also answers the question of what the web presence efforts are suppose to accomplish – where is the web presence leading the company (Kalakota & Robinson, 2001: 408; 443). The benefit view makes the evaluation step and strategy formulation step to overlap. The evaluation step can though be seen more as screening of the possible benefits and deciding on which one (or ones) to pursue. The strategy formulation step concretizes this pursued benefit(s). Strategy formulation compares to the web presence plan in figure 6 and in the pyramid model (figure 7) the strategy.

Creating web presence should facilitate customer relationships (and also relationships with other interest groups), integrate with existing strategies, and create return on investment and CA (Dowding, 2001).

To remain focused the specific customer segments to target and products offered have to be identified in this step (Brunn et al., 2002).

A company can choose from four strategic directions for its web presence model. It can offer customized products or services, provide added value to current customers, attract new customers, or reposition itself in the business network (see figure 8). (Benassi et al., 1998; Huizingh, 2002a) The strategic goal is ultimately revenue growth through cost efficiency, CA, positioning, or more efficient marketing (marketing intelligence) (Adams, Deans, Mulye & Palihawadana, 2002).

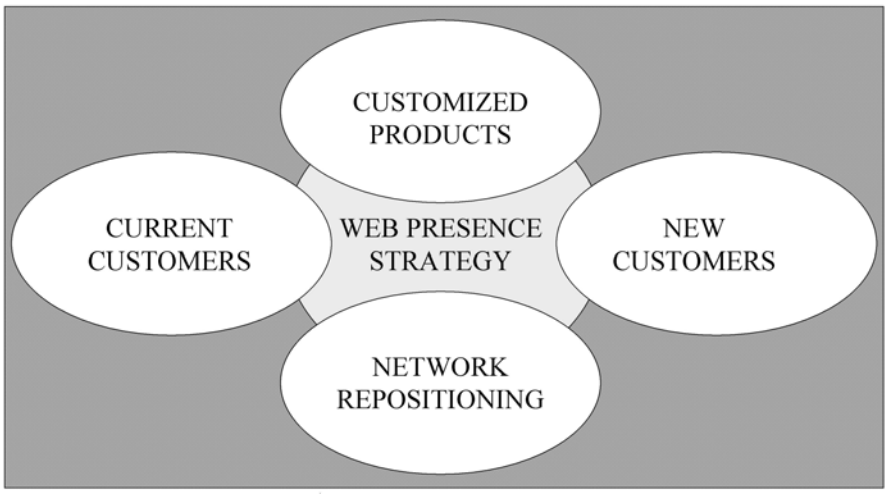

Figure 8 Web Presence Strategy Application Model (modified from Huizingh, 2002a)

CA can be achieved through operational effectiveness – doing the same as the competitors but just better, or through strategic positioning – doing things different than the competitors and therefore being unique. An established company already possesses traditional CA. This often continues to exist when engaged in web presence activities. (Porter, 2001) This is why for already established companies it is important to stay focused on how to profit from web presence to support their existing CA. Engaging into something just because it is new or hype undermines or ventures outside the CA.

A company has to be sure its web presence strategy does not conflict with existing strategies and especially the relationships with its customers. To be able to benefit from the web presence the organizational relationships on which it lays on must be remembered. Web presence does not exist in a vacuum and by realizing this, companies have more possibilities to gain CA, improve coordination and collaboration processes, and decrease channel resistance. (Jap & Mohr, 2002) Therefore it is crucial to have a coherent strategy (Cagliano et al., 2003). It helps to successfully respond to the opportunities and threats, and to the business challenges of ever increasing velocity and complexity (Dowding, 2001). Without it a web presence can be successful on short-term, as maybe enthusiasm to new technology exists on the customer side as well. Coherence of strategies is though essential for long-term success to harness the suitable benefits as the technology becomes more mature. The one who has evaluated the possible benefits and incorporated this to its strategy is to gain advantages in comparison to the competitors.

To gain a CA through web presence one does not require a radically new approach to business. It is a complementing tool for strategy implementation not to be set apart from established operations. (Porter, 2001) The ability of a company to first develop and articulate a corporate strategy, and then integrate an e-business model that supports this strategy, correlates directly with the success of its web presence. Moving boldly into the e-environment without a solid business strategy results in failure of the support from the foundation it is to stand on. On the other hand being overly cautious does not take full profit of the opportunities offered. (Dowding, 2001) So it needs to be remembered that web presence is not an isolated part of company activities – but an integrated part of it (Bossart & Haite, 2000: 101).

While creating an integrated web presence strategy also how the benefits of web presence can and will be measured need to be

determined (Senn, 2000). As the basic questions of web presence are answered, and the priorities are set a coordinator needs to be assigned (Barowski & Müller, 2000: 113-114). A manager for the web presence project is pointed for the realization of the web presence strategy decisions. The manager is responsible for building the web presence and overseeing it fulfils the desired objectives (and later also develops it to maintain the acquired advantages). (Krause, 1999: 271-272; Pinsley, 2002)

The challenge of being able to continuously refresh and adapt the strategic vision that aligns the web presence strategy with the business is greater than achieving the alignment during the planning process. Instead it should be an ongoing process addressed periodically. (Salmela & Spil, 2002) Due to the fast paced nature of the internet is updating and development of the web presence extremely important. This means including web presence in the long-term marketing strategy (Corbet, 2002). Also the actual step model for web presence building can serve as a development tool for it.

2.1.3 Plan Step

The strategy is concretized into a plan. This plan step correlates to the web presence blueprint in the Kalakota and Robinson model (2001) (figure 6), and the plan in the web presence building pyramid (figure 7). A web plan defines the specific acts that ensure better customer value and through it profit growth. It spells out how to get where the strategy leads (Kalakota & Robinson, 2001: 412; 443). The plan gives the concept for the web presence by stating the focus (target customer, product, marketing, and image), content (themes), focus on interactivity/presentation (which is emphasized), and communication style (individuality and feedback), and reaction importance. (Krause, 1999: 281-284)

Web presence plan also means re-establishing the business processes to support the strategy realization (Dowding, 2001). Each division of the company takes part in meeting the requirements of the plan implementation (Kalakota & Robinson, 2001: 438-441). Especially questions of how (and why) customers are attracted to the web presence and how they are kept satisfied through web presence are to be addressed. Important are also the customer service issues. (Krause, 1999: 454-458)

The desired characteristics, features, and capabilities for the web presence are chosen. The content (information given) and how it is displayed by web presence are important decisions. (Arnott & Bridgewater, 2002; Bossart & Haite, 2000: 158-181; Baltas & Karayanni, 2003) If products are to be sold it needs to be resolved in which way – which kind of solutions (for order placement for example) are deployed, or how an online catalog is to be build and maintained (Krause, 1999: 500-517). Information organization, privacy and security issues are also to be planned (Chackraborty, Lala & Warren, 2003).

A web presence plan tells how a unique customer experience is to be created. It is about the wider solution offering to the customer instead of being merely about serving a product. (Krause, 1999: 458-461) This means that from the broader picture and ideas of the previous steps it is time to specify the target customer segments and their needs, develop the framework for this unique customer experience and customer capture, and the scope of the design. What to outsource and what to keep inside depends on the capabilities of the company. (Kalakota & Robinson, 2001: 413)

Deciding on the content issues means deciding on what the company wants to offer (Krause, 1999: 226). To do this, the different aspects of content are broken into different types of information. There is advertising information in regards to products, general PR information

that gives information about the company itself (philosophy, R&D activities and environmental strategy), financial information, which is the company in numbers, and press information. A feedback section in one form or another is not to be forgotten. (Roll, 1996: 119-122)

The content information can also be divided differently (see figure 9). There is commerce related information (product and company information), and non-commerce related (e.g. news on technology advances). Information content is the mix of the information on the products, services, industry, and the company. Also news, event information, and advertisements enrich the informational content. (Bossart & Haite, 2000: 159)

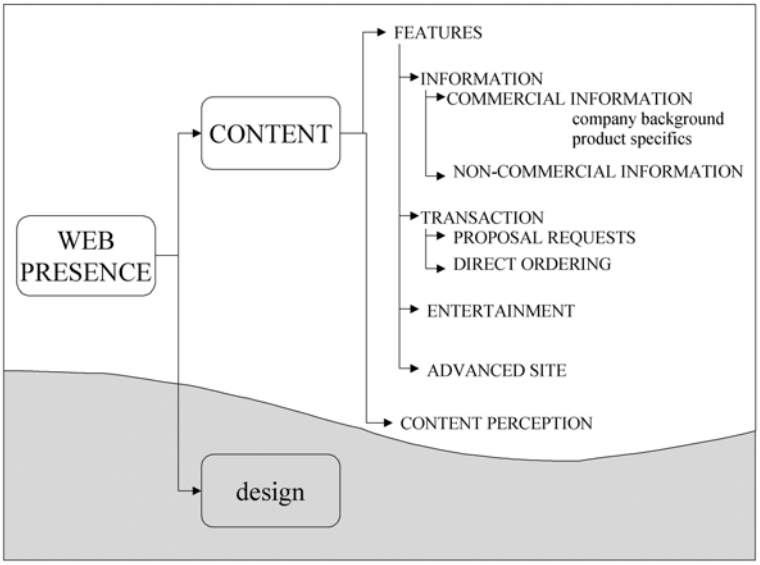

Figure 9 Web Presence and Content Creation (Huizingh, 2000)

Content though is not only information (see figure 9). There are also transaction features (ordering feature and proposal request), entertainment features (serve for both goal-directed and experiential visitors), and advanced site features (ability of the web presence to take the most benefit of all the features). Content perception is the differentiation between appealing to the customer through an emotional or rational, informational approach. (Huizingh, 2000) Thinking of the B2B purchasing process the rational and informational approach makes

more sense than the emotional approach in concept perception emphasis. This is because organizational buying involves several individuals and various influencing patterns, take place over time, and include different authority levels and departments (Ghingold & Wilson, 1998; Liukko, Woodside & Vuori, 1999) Important is also to acknowledge the results of research done on for what customers are using the internet – information gathering and placing routine orders (Deeter-Schmelz & Kennedy, 2001). So when it comes to investment goods a direct buy through a web presence is very unlikely, not least due to the financial risk but also because of the complexity of the purchase (Liukko et al., 1999).

A good and proactive web presence plan is not a reactive catching up game following the competition. It is also not about running too far into the future by trying to deploy the latest or even future trends when the customers are not yet ready for it. (Benoy et al., 2001) Therefore the content should be designed to be actual, flexible, interactive, information rich, entertaining, to bring additional benefits, feedback inviting, and worthy of communicating (Krause, 1999: 284-285). Content makes a bridge from customer to product instead of from product to customer (Barowski & Müller, 2000: 123). Planning also includes resolving time and budgeting issues and only after that can the move to the next step of the process be made (Kalakota & Robinson, 2001: 413).

2.1.4 Blueprint Step

After the path for web presence is clear can the technology (or in other words technical) issues be first addressed (Dowding, 2001). A blueprint spells out how technically the strategy and the plan are supposed to be implemented. It tells the specific technical solutions, applications and technologies through which the wanted benefits are to be achieved. (Kalakota & Robinson, 2001: 441-495) In the model of the figure 6 this

steps correlates to the individual application framework project and in the pyramid model to the blueprint.

Deploying the latest innovations in technological advances is not always the best approach so these technical specifics need to be well thought (Benoy et al., 2001). The blueprint deals with the issues of the web presence design (see figure 10). There are feature issues in the design that are technical and perception issues that are more subjective. Navigation is one of these features. Navigation structure is the way information is structured in the web presence – whether it is a tree, a tree with a return-to-home, tree with a few horizontal links or an extensive network. There is also a search feature possibility to help navigation. Because of the different customer segments of the web presence the access to some information can be limited and so creating privileged information to some (be it a customer segment or a single customer). Usually this is done by means of password and/or IP-identification. (Huizingh, 2000)

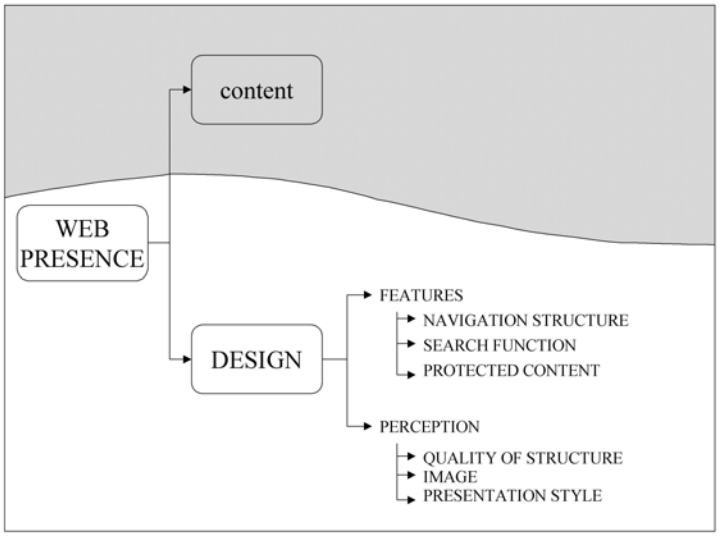

Figure 10 Web Presence and Design Creation (Huizingh, 2000)

Quality of the navigation structure is the ease for the customer to find the needed information. Information should be logically placed. Image refers to the element of web presence that makes the content more attractive. Image is not only presentation – it is the balance between

attractive design and plain information. Presentation style on the other hand facilitates the interpretation of the information. This means the layout, colors, shapes, font style and size, mix of text and graphical information, and sort, shape, size and placement of links. (Huizingh, 2000) So the web presence has to be navigable and readable (Krause, 1999: 227). The perception issues are to be viewed through the eyes of the customer (though customer focus should not have been forgotten at any step of the web presence building process).

How the web presence will be linked in the virtual world is another issue to be solved before implementation (Karayanni & Baltas, 2003). This means thinking the ways the web presence is promoted in the traditional medium such as TV, radio, print, product and promotion material, and visit cards (Roll, 1996: 141-144) as well as in other electronic media (Morath, 2000: 264). No one would expect that getting an office and a telephone connection would bring customers – so no one should expect that neither from their web presence (Bossart & Haite, 2000: 421-431). This is why it is important to use all the possible means to draw attention to the web presence (Krause, 1999: 225).

Addressing the detailed blueprint issues help measuring the success as each action is specified (Kostermans, 2004). Creating measures is essential for the success because of the dynamic nature of web presence. (Krause, 1999: 286-288)

2.1.5 Implementation Step

The last step in the web presence building process is the implementation. This does not mean though the end of further development of the web presence. It should be remembered that web presence is far from being a static part of marketing. Instead it needs to be continuously updated and revised. (Krause, 1999: 225)

Speed is important in implementation but sound business judgment should not be compromised (Dowding, 2001). First mover advantage is to be exploited but the trade-off between quality and speed has to be understood (Brunn et al., 2002). It also needs be remembered that being the first does not bring an advantage per se (Porter, 2001). This means that the first mover advantage is not for given. Nevertheless the velocity of evolution of technology and industry practice makes speed important for the whole web presence building process (Benoy et al., 2001).

Implementation includes success control of the web presence. The control aims to the development and optimization of web presence (Krause, 1999: 286-288). Part of it includes measuring success from the customer point of view. Measuring customer satisfaction is important as well as the principal tool to evaluate the relationships with customers (Rossomme, 2003). As web presence intends to become a part of this customer relationship must this dimension of that relationship be included in the measuring. So the implementation does not end at the realization but includes also the further development of the blueprint and the plan, as well as the revision of the strategy (Siebert, 1999: 72; 84-87).

2.2 Stages of Web Presence

The maturity of web presence can be divided into stages (Morath, 2000: 109). For a company to be at least at the first level some kind of web presence needs to have been adopted. Email accounts for the employees are not sufficient to establish even this first stage (Pian & Teo, 2004). (see figure 11) In the literature the stage model is mostly used as a tool for evaluating the historical development of web presence. Later in this thesis the possibility to use it as a tool for evaluating web presence performance is explored. Right now the different stages are defined.

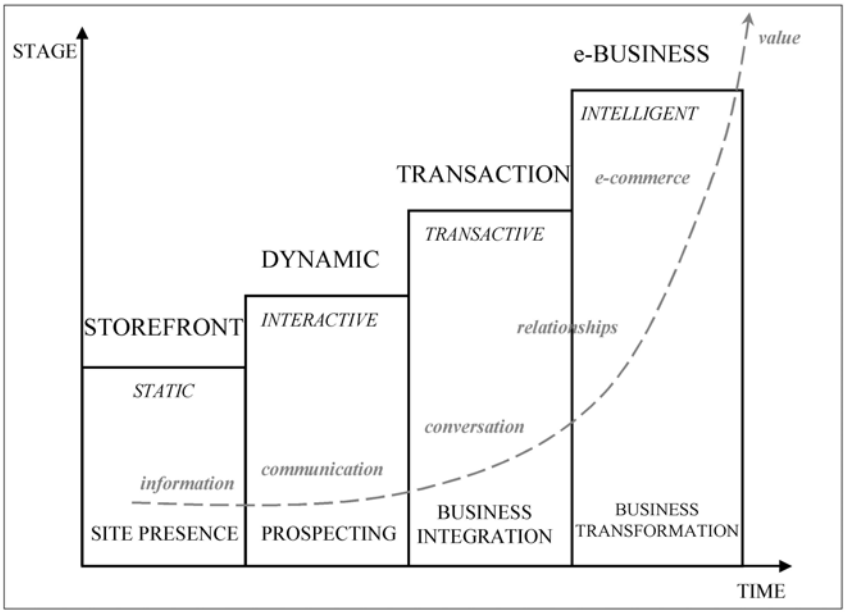

Figure 11 Stages of Web Presence (adapted from Morath, 2000: 111; Sharma, 2000; Pian & Teo, 2000)

Most companies still find themselves in the early stages of web presence. Web presence serves merely as a publishing medium for sales and marketing information. They fail to integrate web presence into the core business processes and so fail to gain CA. (Hamill & Stevenson, 2002)

Larger firms are more inclined to adopt higher stages of web presence (transaction and e-business levels). Therefore they are able to take better advantage of the extensive information provided by these stages as well as their transactional functions. (Pian & Teo, 2004)

The customer focus shifts when moving from one stage to another (see figure 12). From just gathering information but not yet really using it for deep analysis at the first level it moves to analysis execution on various aspects at the second level. Finally the customer focus moves to creating communities and so creating more benefits out of the customer relationships.

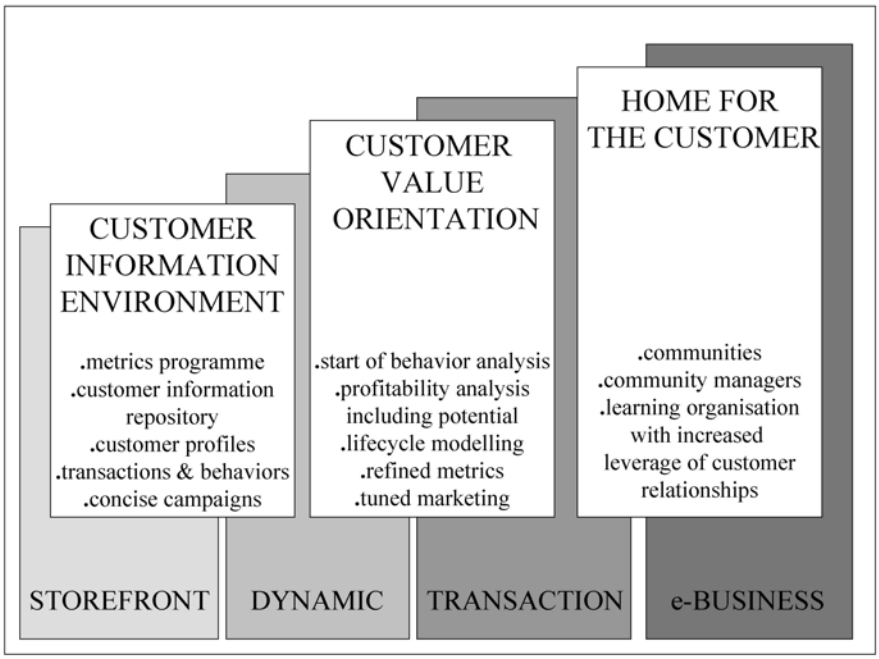

Figure 12 Customer Orientation and the Stages of Web Presence (applied from Morath, 2000: 113)

2.2.1 Storefront Stage

A storefront web presence merely provides static information to the customer about the company, one or several products, and customer service descriptions (Bossart & Haite, 2000: 93-94; 363). The customer is the navigator of information who only visits and observes it. The flow of information is one way (company through web presence to customer). (Sharma, 2002) At this stage web presence can be compared to a printed brochure (Morath, 2000: 110). It also lacks strategic nature (Pian & Teo, 2004).

2.2.2 Dynamic Stage

A dynamic web presence enables the customer to interact with it. The web presence facilitates the information processing and manipulation better than in the storefront stage. It is rich in the way information is presented. (Bossart & Haite, 2000: 96; 364) Some personalized content is provided and order placement for some products is made

possible. Confirmation of the order happens to the customer immediately. (Morath, 2000: 110)

As the company starts to collect more disciplined information on the preferences of the customer, attribute importance, channel preference, purchase cycle, and purchases it starts to integrate its internal databases with behavior on its web presence. Normally this means the start of adopting CRM. (Sharma, 2002) Potential customers though are still accessed through minimal distribution cost and the actions are not tied to the business strategy (Pian & Teo, 2004). Content is more carefully thought in the light of which information can be access by which customer or customer groups. Also it is cleared how the access to databases is organized. (Morath, 2000: 264-265)

2.2.3 Transaction Stage

Transactional web presence offers more personalization in comparison to the dynamic. Customer value model is integrated with web presence actions to enable the activities of guiding the customer through the offerings, highlight the assumed offerings the customer is interested in, and offer an appropriate price, packaging, delivery service and payment approach best suitable for the customer. (Morath, 2000: 110)

The web presence facilitates already two-way conversations before (customer taking part in the product specifications/design, and/or informing customers with new products) or after the transaction (service information). Web presence is also applied to develop and maintain customer relationships by tying the customer to the company's information systems. (Sharma, 2002) Web presence has become a more strategic tool for the company and the integration of it into business processes has taken place. Web presence strategy melts into the overall business strategy. (Pian & Teo, 2004)

2.2.4 e-Business Stage

At e-business stage web presence allows high self-service by letting the customer to configure the offered products interactively, negotiate service levels and prices, and receive a proactive and responsive support. (Morath, 2000: 111) This leads to the shift of preferring web presence as the platform of transactions to other platforms. Systems are more closely tied together creating extended enterprises or interprises. (Sharma, 2002) Web presence results in a transformation in the business model throughout the organization. Relationship building and seeking new business opportunities becomes the focus. (Pian & Teo, 2004)

3. MARKETING BENEFITS OF WEB PRESENCE

Measuring is tied together with the objectives of web presence. Because the objectives are the benefits intended to achieve looks this chapter the benefits that arise from web presence to marketing. It bridges the gap between web presence building process and measuring its performance.

Web presence has noticeable benefits on sales management efforts, as well as sales performance and efficiency – in other words the marketing activities (Avlonitis & Karayanni, 2000). Marketing occurs in three channel types that are distribution, transaction and communication. Web presence overlaps with all of them. (Kiang et al., 2000)

The benefits of web presence are best utilized in a relational context (building relationship) that establishes trust, in comparison to a transactional context (deal oriented). This being said web presence could improve customer service, relationship quality and cooperation while decreasing channel resistance. They happen by better information sharing and customer reach. (Jap & Mohr, 2002) Through improvements web presence creates added value for the customer. Added value is delivered through targeted information (relevancy to the customer – “just-in-time marketing”), interaction, and customized products by providing customized web presence (Godfrey & Walsh, 2000).

Virtual communities let customers share their experiences, access competing vendors and ideas, and shape the content they receive. Audiences that have already segmented themselves make it easier to target product offerings to them. The use of virtual communities is still very small though. (Heinen, 1996; Amit et al., 2000) The applicability of virtual communities in a B2B context is also yet to be proven.

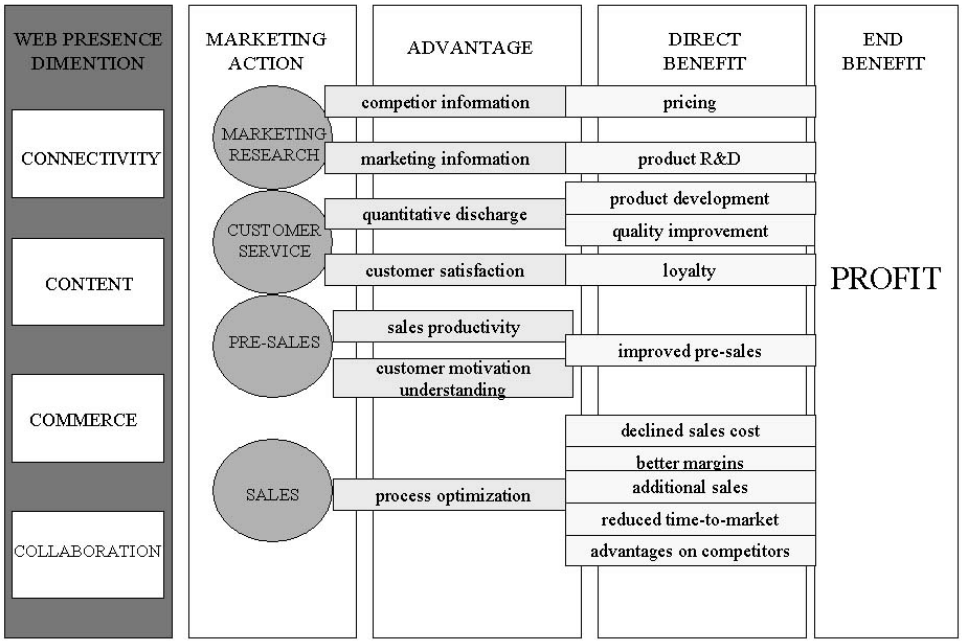

Figure 13 Web Presence Benefits on Marketing Activities (applied from Bossart & Haite, 2000: 151-311; Kiang et al., 2000)

The benefits of web presence from a marketing perspective are summarized in figure 13. Through the dimensions of connectivity, content, commerce and collaboration web presence has positive impacts on marketing research, customer service, pre-sales and sales activities. These positive impacts result in greater profits for the company.

3.1 Customer Relationship Management

Not all actions of a company are aimed at initiating a transaction. They also aim to strengthening the existing relationship with a customer. (Huizingh, 2002a) It is stated that attracting a new customer is more expensive than keeping an old one making it sensible to retain the existing customers (Gilbert, Lee-Kelley & Mannicom, 2003). So making customers stick around and make repeat purchases over time is essential for profitability (Reichheld & Schefter, 2000). For successful CRM the quality of information and predictions is essential (Butler, 2000).

Web presence allows better observation of the customer purchase process in a more detailed manner (Huizingh, 2002a). It enables better information and knowledge on customers, creating an ongoing relationship to meet and serve customer needs while meeting company objectives (Greco & Johnson Ragins, 2003). A company can gather information from the moment the customer accesses the web presence to moment of exit, regardless of a purchase (Godfrey & Walsh, 2000). The increased information flow that web presence gives access to brings a company more information about the customers – their buying behavior and characteristics. This results to improved target marketing and higher quality feedback on product offerings. More knowledge also helps identifying and offering complimentary products, allowing buyers to save time not having to look elsewhere. This creates more sales to the company. (Amit et al., 2000) This though does not necessarily fully apply in the B2B environment. First of all as previously stated the internet is used by organizational buyers for information gathering and making routine orders. This taken into consideration it is safe to assume that most of the purchasing process of an organizational buyer still stays unseen from the selling company. Secondly, while the automated repurchase makes it easier for the buyer to place on order does it not directly mean that more information is collected on the customer.

Web presence though has the ability to not only improve the quality of information and predictions but also produce more information. By doing so the input on the analytical process and decisions regarding relationship value improves. This helps the company's ability to operate the right strategy for each customer, every time. (Butler, 2000)

Web presence aids in the important activities of CRM (see figure 14). The CRM elements of commitment, satisfaction and trust creation are

reinforced through constant availability, efficient information transfer, interactivity, individuality, and transaction integration.

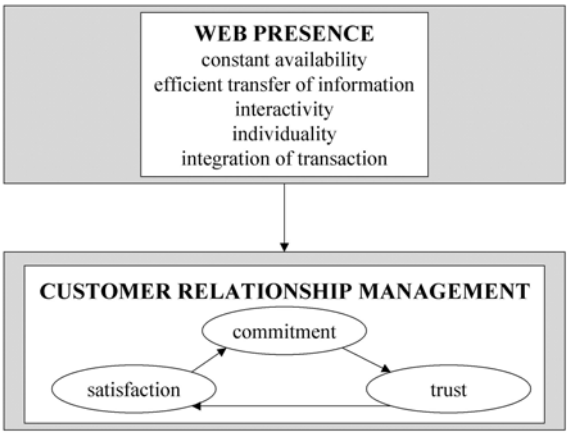

Figure 14 Web Presence and CRM (Bauer, Grether & Leach, 2002)

Web presence and CRM interact at many levels (Karimi, Gupta & Somers, 2001):

1. Operational: e-CRM solutions that improve customer service, online marketing, automating sales force, etc.
2. Analytical: e-CRM solutions for data collecting and analysis, improving relationships, etc.
3. Collaborative: e-CRM solutions for online community building, personalization services, B2B customer exchanges, etc.

Community building, image building and offering services that help customers to do a better job are web actions that benefit CRM. Communities let customers directly interact with each other on topics related to the company or the products they provide. Image building aims to strengthen the brand of the company. Web presence customization through for example premium pages containing often confidential information or applications a web presence can enable customers do their job better. (Huizingh, 2002a) The communities are still an uncertain opportunity of the web presence but premium pages have already found a place in the web presences of the B2B companies. The actions – demonstrating interest, listening and

understanding the customer build customer loyalty are objectives of CRM (Godfrey & Walsh, 2000).

3.1.1 Customer Interaction Cycle

The purpose of the Customer Interaction Cycle (CIC) helps to analyze customer interactions better. This understanding improves CRM (see figure 15). It sheds light on how customer value through web presence is possible to add by drawing the interaction process and highlighting the opportunities for value creation. (Huizingh, 2002a)

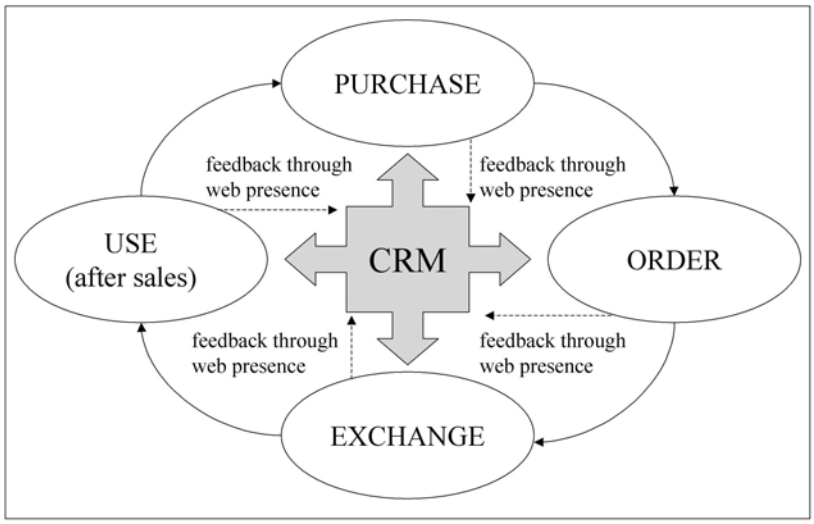

Figure 15 Customer Interaction Cycle and Web Presence (Huizingh, 2002a)

PURCHASE: Web presence can aid the customer in the decision making process by offering information and enabling them to interpret and manipulate it. This supplier advice can be offered based on technical considerations but also on more subjective issues. (Huizingh, 2002a) In the organizational buying behavior context, placing information that an individual of the buying center can use to convince the other members can bring extra benefits. Information that supports the selection of the company for the purchase is valuable – more so if it takes into consideration the requirements of different members of the buying center (Ghingold & Wilson, 1998; Liukko et al., 1999). The web presence has though only a supporting role. The salespeople are still

needed in the actual transaction (in the case of other than just routine orders) (Deeter-Schmelz & Kennedy, 2001). Especially in B2B negotiations personal interaction is still essential (Harwood, 2002). The idea is to make the purchase as easy as possible for the customer by being rapid and uncomplicated (Ahlreep et al., 2000: 44). Through web presence purchasing data can be collected and by analyzing this data customer's buying frequency and monetary value is provided. Also behavioral information from click-streams in the web presence navigation gives additional information for CRM. (Godfrey & Walsh, 2000)

ORDER: Through web presence the order placement and processing can be made as effortless as possible to the customer (Ahlreep et al., 2000: 44; Huizingh, 2002a).

EXCHANGE: The payment and even the actual delivery of the product can happen through web presence. Instead delivery information about the distribution process or tracking status can be provided. (Huizingh, 2002a) Information about the features of the product to be delivered as well as information exchange between current customers using the product can be leveraged to create value (Morath, 2000: 201).

USE: Web presence can create customer value by facilitating the activities of installing, training, maintaining, repairing, and disposing the product both proactively and reactively (Ahlreep et al., 2000: 44; Huizingh, 2002a). During the use stage feedback from the customer can be obtained to acquire important information (Morath, 2000: 201-202).

Through this model current support activities regarding each CIC phase can be defined and evaluated. Investigating whether or not they could be replaced or enhanced by web applications, even possibly bridging the gaps of unfulfilled needs and wants is the benefit of CIC to web

presence. In reverse this is the benefit of web presence to CIC. (Huizingh, 2002a)

At static and dynamic stages of web presence the customer information environment is build. Information of the customer is gathered (transaction and behavior) to create customer profiles. In the transaction stage the analysis (behavior, profitability, potential) of the information is conducted. It includes also the adoption of lifecycle modeling and the use of refined measures. The e-business stage is more about managing communities – learning and using this to leverage in customer relationships. (Morath, 2000: 196-200)

3.1.2 Customer Service

Web presence brings benefits to customer service (Karimi et al., 2001). Costly processes from the customer service interaction can be cut, by letting customers access certain information on their own through the web presence (Griesinger, 1999). The information can be checking the progress information of orders and access online other customer specific information such as drawings, access manuals, and technical information (Kandanpully, 2003). Also analysis and operational online-support services make it more convenient to the customer and further strengthen the relationship. Often these tools are suitable for valuable data collection as well. (Griesinger, 1999)

Customer service through web presence changes the role of the customer. The customer is no longer a passive receiver of information and advice from product and support material. It plays a more active role in the problem solving – though burdening the customer is to be avoided. Web based customer service can be more personalized and therefore cut search cost presenting relevant products. (Rowley, 2004) This means that to solve problems the customer can interact with the web presence or material (e.g. software or manuals) downloaded from

it, instead of calling a service center. In doing so the customer plays a bigger role in solving the problem instead of being asked questions and replying to them passively. Technology opens opportunities to develop service features that benefit both the customer and the company (Kandanpully, 2003). One new feature in the future will be video or live streams that eliminate the need of physical presence.

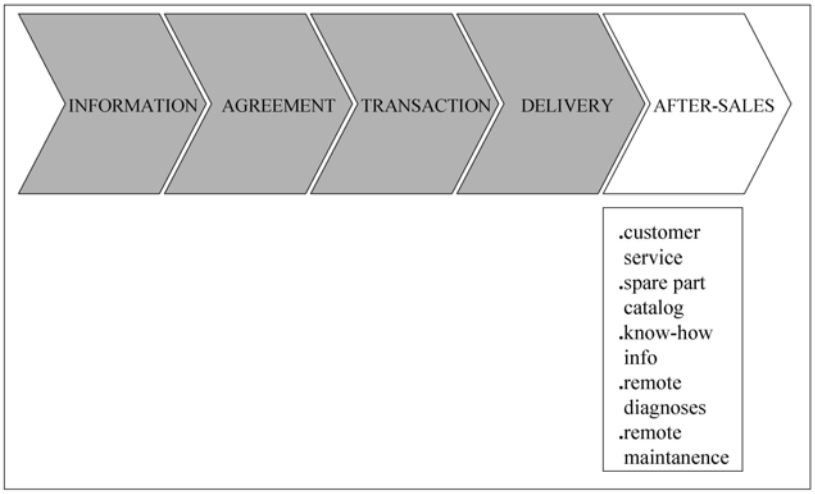

Figure 16 Steps of Market Transaction in Web (Customer Service), (Bossart & Haite, 2000: 201)

As customer service through web presence a company can provide technical support assistance, offer news letters featuring technical education, new processes, safety information, new product developments, and make a question-and-answer sections (see figure 16). In doing so it gives the customer superior customer service and through it provides value (Benassi et al., 1998). Though as more and more companies offer similar customer service features is the superiority of the service gone. Continuous innovativeness or creating a service feature that the competition cannot copy would give a more permanent advantage.

As stated before shifting customer service to online cuts down costs (Griesinger, 1999). By providing contact information for customer service, FAQs (Frequently Asked Questions) and valuable information from internal data sources, extra value is added by higher level of

customer service. Online customer service also enables marketing as well as the customer to become a bigger part in the product development. It facilitates an ongoing dialogue through online forums. (Heinen, 1996)

A company has to remember that the same level of service is expected though web presence than through personal interaction. Otherwise value from customer service by web presence is not created. (Benoy et al., 2001) So enhancing the usage experience through support services improves satisfaction over the product life cycle (Feeny 2001).

3.2 Other Marketing Activities

Better CRM is not the only benefit from engaging in web presence activities. Other marketing activities are to gain efficiencies as well. The internet has impact on the industrial purchase decision at many levels (Deeter-Schmelz & Kennedy, 2002).

3.2.1 Marketing Communication Channel

Web presence enables a high value-added, effective and integrated marketing communication environment and therefore integrating it to the marketing communication mix brings benefits (Hoye, 1998). Web presence facilitates information transmission beyond other marketing communication channels (Roll, 1996: 73-82). Therefore it improves public relations (PR) and communications (Benassi et al., 1998).

Using the internet for marketing communication an immediate response is possible from the receiver. The participation or even adding to the content is also facilitated. Internet benefits include providing detailed product information and specifications, access to previously unknown or inaccessible buying influences, projecting corporate image, customer involvement, interactivity, samples, customer database extending, and

product distribution. (Hoye, 1998) In other words this means that through the interactivity offered by web presence customers can also request more information or state questions and facilitate market research (Roll, 1996: 75). The control over the information received increases the importance of it to the customer as well as influences the preferred information-obtaining medium (Deeter-Schmelz & Kennedy, 2002). Though being a benefit for the customer it can be a threat for the seller company. Internet enables customers to access more information that the company itself has no control over.

Virtual communities (chat rooms, discussion forums, etc.) let customers share their experiences, access even competing vendors and ideas, and so shape the received content. Though as customers segment themselves is targeting product offerings easier. (Amit et al., 2000) As stated before though there is skepticism towards communities in a B2B context.

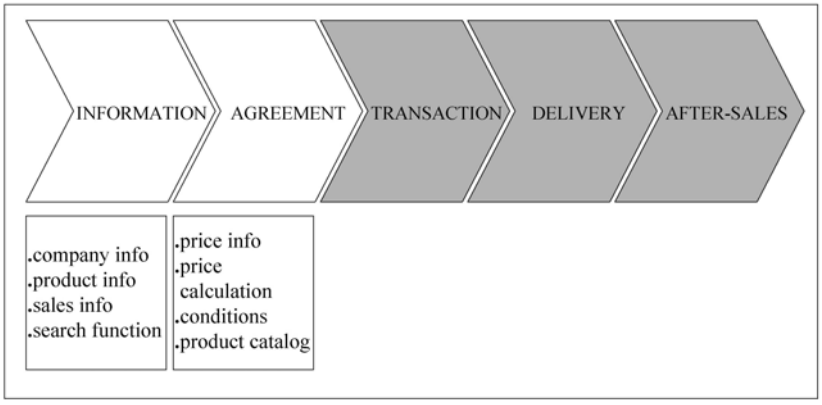

Figure 17 Steps of Market Transaction in Web (Marketing Communication), (Bossart & Haite, 2000: 201)

Marketing communication provides information in the first steps of market transaction (see figure 17). Apart from product oriented information, offers web presence an excellent opportunity to project company image (company brand, social responsibility, environmental issues, and company culture) as well as create awareness of other activities such as trade fairs or events (Roll 1996: 77-83).

It should be kept in mind though that web presence is not more than one tool in the communication mix (Adams et al., 2002). It is only one channel in the interfirm communications. It does not overthrow the need for other communication channels. The internet and in so the web presence is used frequently in buyer-seller relationships in the B2B environment where communication interaction is already high. (Boyle, 2001) It is the overall combination of all marketing communication tools available that makes success (Roll, 1996: 72). So the traditional marketing communication channels should support web presence marketing communication efforts (Roll, 1996: 141-144).

In comparison to other marketing communication media web presence has a wider range of objectives it can achieve (see table 3). That undoubtedly is one of its greatest benefits to marketing communication. The purchase objective though does not apply fully in the B2B context.

Table 3 Marketing Communication Objectives and Marketing Medium (Eliaz & Lichtenthal, 2003)

OBJECTIVE / MEDIA	awareness	knowledge	liking	preference	conviction	purchase
publicity	x					
advertising	x	x	x			
fax	x	x				
e-mail	x	x	x			
direct mail		x	x	x		
catalogues			x	x	x	
web presence	x	x	x	x	x	x
trade shows				x	x	
promotions				x	x	x
telemarketing					x	x
face-to-face					x	x

Web presence enables so improvements in target marketing and the opportunity to receive better quality feedback about the product offerings. It also helps to identify and offer complimentary products. (Amit et al., 2000)

3.2.2 Sales Channel

Web presence can facilitate the order placement process (see figure 18) by creating a virtual transactions space (Angehrn & Meyer, 1997). Through registration of customers and providing them with passwords, customer profiles for authentication are enabled. Payment methods through web-enabled technologies (e.g. card payments, e-cash, online invoice or offline invoice) can also be offered as a sales channel activity (Bossart & Haite, 2000: 213-214). Though a transaction space can be used in the B2C markets it has limitations in the B2B markets. B2B transactions are more complicated. The benefits organizational buyers seek achieving through engaging in web presence activity do not undermine the role of sales force (Deeter-Schmelz & Kennedy, 2001). There is still need for interpersonal contact and so personal selling.

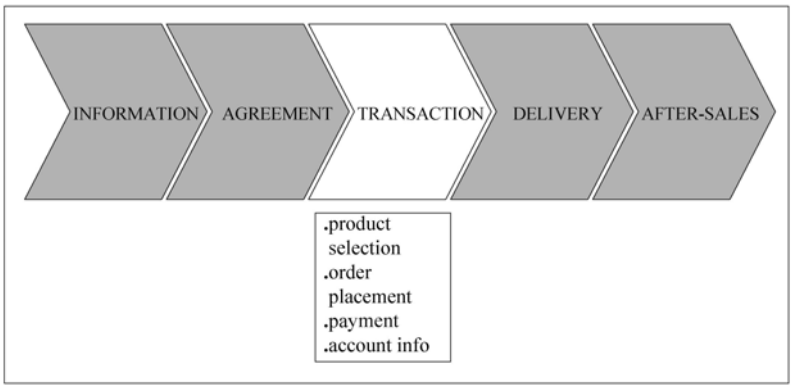

Figure 18 Steps of Market Transaction in Web (Sales), (Bossart & Haite, 2000: 201)

Because of its high interactivity web presence enables customers to exchange many cycles of information and return to that at a later time. They can continue straight from where they left off (which to even the best salesperson would be a struggle). Web presence is a subtle, flexible, pertinent, and persuasive one-on-one dialogue for sales through its unique responsiveness. (Deighton, 1996) The need for personal contact is still essential in making sales in the B2B

environment. Web presence does not eliminate the need for other kind of sales channels or sales personnel. (Harwood, 2002)

Web presence enhances the selling process through better product and market targeting or simply being more successful in making the characteristics and benefits known. Value is created for the customer by improving the buying experience through easier purchase or a better match to the needs. (Feeny, 2001) Especially the ability of the web presence to provide information that the buying center can use internally is a benefit for B2B sales. Making such information available when almost limitless information from various sources is available can make buyers more inclined in forming long-term relationships (Boyle, 2001). While making the relevant information more easily accessible are the information gathering costs for the customer decreased. Web presence offers an interaction surface between the buyer and seller companies that does not require high, non-recoverable investments (Boyle, 2001).

One solution to make the buying experience easier for the customer is through tailored decision-support software. They offer tailored purchasing advice by comparing products (even with that of the competition) enabling the sale of more complex products and solutions. (Morrison & Wise, 2000) This information can help convince other members within the buyer organization. It also helps to justify the decision made in favor of one supplier.

3.2.3 Distribution Channel

Web presence serves also a logistical function by providing an interface for order taking and/or distribution channel for the product (or a part of it). The decisive factor is the nature of the product. (Adams et al., 2002) Web presence offers distribution economies that depend on the existing

distribution and information systems of the company (Garino & Gulati, 2000).

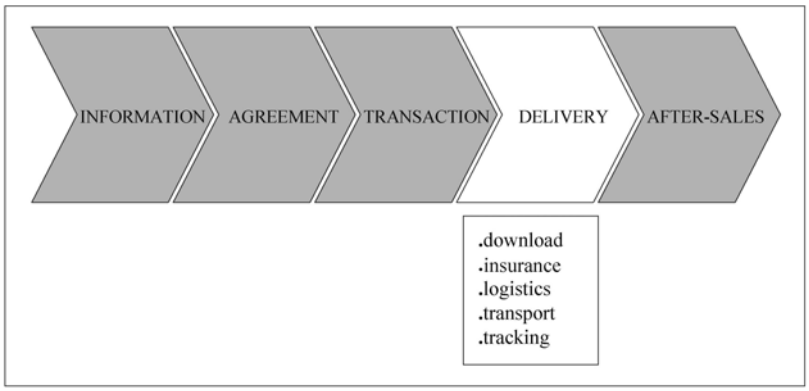

Figure 19 Steps of Market Transaction in Web (Distribution Channel), (Bossart & Haite, 2000: 201)

Web presence creates a virtual distribution space also for different services (Angehrn & Meyer, 1997). The distribution of services rather than pure and plain products is more easily adopted. This means providing the customer with logistical information in order for them to track their delivery and the possibility to influence the delivery decisions (see figure 19). (Bossart & Haite, 2000: 215-220)

Easily digitizable products are e.g. software, manuals, books, and data for viewing or downloading. Online services like customer support line as well as access to interactive libraries of technical notes or archives are other examples of harnessing the web presence for the benefit of the distribution channel. (Angehrn & Meyer, 1997) The marginal cost for distribution or replication of such digital products or services is close to nothing compared to conventional distribution of documentation (Varun, 1999).

4. EVALUATION OF WEB PRESENCE PERFORMANCE

After examined the benefits the focus turns to measuring web presence performance. This chapter looks how web presence success is defined, how it can be measured, and how measures bring important information.

The performance of web presence can be divided into technical side and user side performance (Shea, 2000). The technical functionality means the right technological solutions (both hardware and software) (Mülder & Weis, 1996: 55-345). Another division of the performance is dividing it into managerial side and customer side performance (Huizingh, 2002b). Considering the focus of the thesis on marketing the emphasis is on the customer (user) side performance and on managerial side performance.

A company's ability to create value determines the success of its web presence. Value creation depends on the efficiency of the business model and the ability to draw and retain customers (create stickiness) to its web presence. (Amit et al., 2000) The dilemma is how to measure revenue through web presence to compare it with the costs it has created. Also if it is not profitable how can you tell it is successful (Tweney, 1999). This raises a question if success requires financial profitability. Web presences is used though as research tool for purchase decisions driving traffic to other fulfillment channels and in so making online sales not the only measure for success (Von der Haar, 1999). Also it cannot be expected that web is evaluated by different metrics than offline media when in comes to its communication channel applicability (Taylor, 2003).

There has been previously an overall dissatisfaction of the web presence performance mainly because the newness of it. It might have been that the customers were not adopting the internet as expected or that the web presences were not producing the expected value. (Huizingh, 2002b) Rather dissatisfaction regarding the web presence performance though there has been uncertainty. This is because there have not been measures to confirm or deny its performance abilities. There have been no concrete proofs for managers on if their web presences are providing the benefits they are intended to.

There are factors apart from the actions of the company itself that influence web presence success. The figure 20 illustrates the division of success factors into marketing strategy related, web site related, global related, internal related, and external related. The factors that can be influenced by marketing are the marketing strategy related factors, global related factors, and also web site related factors. Marketing could also positively reinforce the external related factors through CRM. Though internal related factors certainly influence web presence performance are they not important to this thesis as they lack marketing scope.

MARKETING STRATEGY RELATED FACTORS	WEBSITE RELATED FACTORS	EXTERNAL RELATED FACTORS	GLOBAL RELATED FACTORS	INTERNAL RELATED FACTORS
1. Top management support and commitment 2. Strategic goal setting 3. Integration with marketing strategy 4. Collaboration (choosing strategic partners) 5. Customer segment decisions	1. Website design 2. Promotion of website	1. Trust 2. Security 3. Successful relationship 4. Internet access 5. Customer acceptance	1. Foreign market environment understanding 2. Resources for globality 3. Multilanguage 4. Cultural considerations 5. Delivery availability	1. Technological infrastructure 2. Internal culture 3. Role of sales force 4. Training program

Figure 20 Web Presence Success Factors (modified from Abdel et al., 2002)

A combination of traditional performance measures with web performance measures that are aligned with vision and strategy gives the best idea of the success of a company. This applies also to web

presence. Linking the used measures to the business drivers and company goals is very important. (Swamy, 2002) This makes sense since one must know what one is measuring and how that can be measured successfully. Even though a measure can show outstanding results it is not a sign of success unless it measures the goal of the action. What measure to use depends on the objective but relying on only one measure might not tell the reality.

It is best to focus on a set of key measures than all the possible measures of web presence success (Obrey, 2003). To evaluate web presence a company needs to look it on three levels: strategic, tactical, and operational. The strategic level spells out the focus of web presence efforts, the tactical level the type of web actions, and the operational level the actual actions. (Huizingh, 2002a)

Measuring success is a challenge since the primary driver for building web presence is not Return on Investment (ROI) but qualitative marketing advantages. These advantages mostly aim to strengthen the customer relationship (Henken, 1996). The initial impacts of web presence are rarely significant on the company's revenue. The long-run benefits are those that bring bigger impacts (Benassi et al., 1998). Therefore to determine if the strategic objectives are achieved both financial and non-financial performance measures need to be identified and used (Swamy, 2002). It can be argued though that qualitative marketing advantages can be a driver for web presence, are these advantages still expected to bring financial benefit. All company activity aims to grow profits, otherwise these activities are not worth engaging in. Relaying on both financial and non-financial measures makes sense not only because the initial financial impacts are claimed to be fairly insignificant. Since the benefits are or can be both financial and non-financial should the measure be chosen according to that. In any case before really starting to analyze web presence performance the most

important measures need to be identified from the wide array of measures available (Eisenberg, 2004).

Web presence also aids the traditional marketing activities through intelligence gathering. Customer preferences, feedback, etc. help create more revenue and cut costs through more efficient marketing activities. Web presence performance is so reflected in overall business performance. (Swamy, 2002) It cannot be expected that web presence success and company success are the same. The success (or failure) of web presence though is certainly reflected in it. This is why using just overall company success measures, is not enough to determine straight web presence success.

4.1 Successful Web Presence

A successful web presence posses many qualities and characteristics. Efficient transactions allow customer to save time, are convenient to the customer, reduce asymmetry of information, and provide a large offering of products and services. This means that a successful web presence should be convenient to the customer; it should save search time, and offer a wide variety of products without overwhelming customers with information. (Amit et al., 2000)

To create stickiness web presence should reward customers for their loyalty, personalize the product or customize the service, build virtual communities and establish trust. (Amit et al., 2000) Therefore it is not enough to have operational success (e.g. high visitor numbers). The number of satisfied and loyal customers is what counts. (Huizingh, 2002a) Web presence performance (success) is a multidimensional phenomenon. Due to its rich nature solely relying on traffic statistics is not enough to measure it (Huizingh, 2002b). What would make success measuring even more accurate would be the possibility to compare company results with industry wide statistics on important measures

(Berry, 1999). The comparison though among competitors at current is difficult. Companies shy away from publishing even their web presence traffic statistic. This makes it also difficult to interpret the data even amongst the most basic web presence measure as hits.

A successful web presence should be customer orientated enabling interactive relationship marketing. It should also be process orientated integrating the capabilities with available tools. (Huizingh, 2002a)

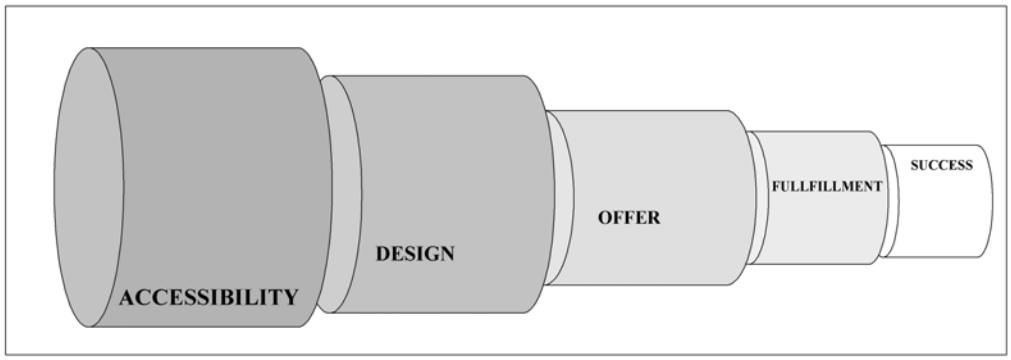

Figure 21 The ADOF Model of Web Presence Success (Huizingh, 2002a)

The ADOF model (see figure 21) states the broad categorizations of the success attributes of web presence. A stands for accessibility, which is the extent a customer or a potential customers, can effortlessly find the web presence. D stands for design characteristics of web presence that determine how accessible the content is. O stands for offer attractiveness, which is the ratio of price and quality. In other words this is the actual content of the web presence. F stands for fulfillment and is therefore the ability to meet own promises as well as the standards of e-environment. (Huizingh, 2002a) The previous attribute is always a requirement for the following attribute to play a role. If there is no accessibility the design is indifferent, if the design is not good, does not the offer matter since it cannot be accessed easily, and so forth. Fulfillment together with performance, post sale service, and support further enhance loyalty towards the web presence (Reichheld & Schefter, 2000).

4.2 Characteristics of Successful Web Presence

The success characteristics of web presence are divided into two categories. There are customer oriented and internal oriented characteristics. The customer oriented characteristics need to be evaluate from the customer perspective. Because of this they require customer feedback. The internal oriented characteristics can be evaluated though internally collected data.

4.2.1 Customer Oriented Characteristics

Quality Content: Quality content means the ability of the web presence to be customized and on the other hand retain coherence, control and consistency. Providing valuable, accurate, and continually maintained information attracts and encourages customers to return. Clear and consistent information helps customers compare the value of the product and make the purchase decision. This access to information needs to be rapid, easy, and the accessed information relevant. (Abdel et al., 2002) Content can also be said to be the ultimate success or failure characteristic (Heinen, 1996). Content is the King in web presence (Huizingh, 2000).

Interest: A web presence needs to be interesting enough to make the visitor move on the web presence, visit it again, or become a frequent visitor. Visitors also spread good word of mouth about interesting web presences (Bossart & Haite, 2000: 181-182). This reflects the need for the content to be of quality.

Entertainment: Entertainment is the ability of the web presence to be entertaining by different themes, graphics, and designs (Chackraborty et al., 2003). The need for a B2B web presence to be entertaining is questionable. Visitors – potential or current customers are goal oriented

information seekers. For them easy accessibility for information and the relevance of it is more important than the ability to entertain.

Informativeness: Informativeness does not only mean the amount of information available on the web presence. It also means the value the customer sees that obtaining this information brings. (Chackraborty et al., 2003) This is closely tied to quality content as not the amount of the information but how relevant it is that is more important.

Actuality: Just like a newspaper is expected to provide the latest news is a web presence expected to do the same. The content of web presence has to be up to date. (Bossart & Haite, 2000: 182) The better ability to update internet material makes it also a necessity. Visitors expect it. Internet and in so web presence have in some aspects different standards as other media.

Personalization: Personalization is the ability of the web presence to create one-on-one marketing/communication with the customer. This brings a more individual tone to the communication. (Barowski & Müller, 2000: 100; Chackraborty et al., 2003) To do this a web presence has to be able to create and analyze customer profile information to better serve the visitor (Krause, 1999: 288). Personalization is possible and it can bring benefits but the trust must not be jeopardized because of it.

Trust: When there is a level of trust established between the company and its customers obtaining information is easier. Trust is also the key for customer loyalty making the web presence more profitable through repeated sales. (Reichheld & Schefter, 2000) Trust is though difficult to create in a virtual environment (Amit et al., 2000). It means good security and privacy (Chackraborty et al., 2003). Respecting the privacy of the visitor is essential especially in the B2B context.

Interactivity: The essence of multimedia environment in which web presence exists is interactivity. It enables one-on-one communication in real time and in a mass volume. (Bossart & Haite, 2000: 183-184) It facilitates the two information flows of company-to-customer and customer-to-company (Abdel et al., 2002). Interactivity is the extent to which the customer can play a part in the web presence and in so making the interaction unique. It also helps to make the information more accessible. (Chackraborty et al., 2003)

Usability: Usability is about being user friendly. Using web presence needs to be therefore simple and fun to use. Too much buttons, links, and etc. make it only confusing to the visitor and messages will not be understood. (Agarwal & Venkatesh, 2002; Bossart & Haite, 2000: 185-186; Myfanwy & Riyad, 2004) This can be viewed especially important for B2B web presences. Their visitors are very goal oriented and hiding what they are looking for or confusing them will only make them leave the web presence.

Usability also withholds the navigability of the web presence. It is the extent to which smooth movement around the site is made possible (Abdel et al. 2002; Myfanwy & Riyad, 2004). It is the organization of the information on the web presence in a clear manner in different formats (Chackraborty et al., 2003). This helps visitors to find what they are looking for.

Convenience: Convenience means making the web presence experience enjoyable for the customer. This is achieved by making the information seeking and product ordering as effortless as possible (Barowski & Müller, 2000: 100). Convenience is the extent of simplicity of the transaction for the customer and so minimized stress to the user (Amit et al., 2000).

Connectivity: Connectivity refers to the extent the web presence is linked in the e-world and integrated in the communities of customers. (Bossart & Haite, 2000: 348-349). It is the ease that a customer can find and access the web presence (Chackraborty et al., 2003). Connectivity means so also searchability. This is the easiness to find the web presence through search engines. (Krause, 1999: 288)

Loyalty/ Stickiness: Loyalty is the ability of the web presence to attract and retain customers – draw repeat traffic to it (Amit et al., 2000).

4.2.2 Internal Oriented Characteristics

Performance: Performance is the technical reliability of web presence. It means that the web presence is viewed bug-free and uploaded quickly (Gurley, 2000; Jaleshgari, 2000). Performance means so reliability – the ability to be available when needed (Pinsley, 2002).

Responsiveness: Responsiveness means speedy reaction to questions and feedback from customers (Abdel et al., 2002). Creating such an infrastructure that enables feedback and request gathering as well as the managing these future potential customers is important to a successful web presence (Heinen, 1996).

User information gathering: User information gathering means capturing information on the visitor through the web presence. It enables the generation, qualification, tracking, and action taking on leads (Heinen, 1996). A successful web presence enables this since it is one of the biggest advantages of engaging in web presence activities. Therefore there should be a solution for doing it (Abdel et al., 2002). As this might have very positive application possibilities in the B2C environment is the applicability of it to the B2B environment questionable. This is because of the higher trust requirement among B2B customer relationships.

4.3 Measures

It is easy to state a web presence is successful through very ambiguous terms (such as visibility or awareness). Unless these nebulous terms are not translated into measurable business terms it is impossible to objectively talk about success. (Senn, 2000) Measures are essential to truly determine if the web presence is accomplishing their business objectives or not (Rohan, 1999).

Monitoring and reporting improves the understanding of the interactions between the customer's actions on the web presence and the web presence offerings. Thus leading into the optimization of loyalty and sales. (Dynia, 2002) The results from measures also help to further develop the web presence and improve it.

Measured statistics can be activity, visitor (customer service or producer service), or behavioral oriented. In addition there are conversion rates. Statistics such as visitor numbers and page views can be used to monitor the effects of a marketing campaign. Behavioral statistics tell what is happening on the web presence but not why. Integrated statistics (conversion rates) use web presence statistics with other data within the company (such as sales revenue, etc.). (Dynia, 2002) Software has been developed to aid in the task of analyzing web presence and its different aspects (Powell, 1999; Rohan, 1999) but it is only a tool and nothing more (Swamy, 2002).

It is argued as well that just measuring web presence with web specific measures is not adequate to measure success objectively. It is rather an across media traditional measures (brand awareness, purchase intent, etc.) that measure the overall success of how well the web presence strategy integrates to the business strategy. (Taylor, 2003) Most important though is that the used measures are compatible with

the business objectives for them to provide correct information and not imply a false success or disappointment (Swamy, 2002).

4.3.1 Web Presence Oriented Measures

ACTIVITY MEASURES

Hits/ Visits: Hits/Visits measure the amount of all visitors on a web presence during a time period (Gardon, 2000: 230; Baltas & Karayanni, 2003; Krause, 1999: 287). Measured can also be the visitors of a specific element of the web presence (Barowski & Müller, 2000: 171). Programs can measure hits but in using them it should be remembered that the same input data could create very different output analysis. Especially difficult is determining the time a visitor needs to look at a site (visitation length that determinates a hit). (Powell, 1999) Hits reveal though all visitors of web presence regardless of their purpose for accessing it (information, purchase decision, purchase, etc.) (Huizingh, 2002b). For measuring success, counting hits is a very poor measure (Rohan, 1999).

A hit is an action on the web server that appears as a log file. A visitor that requests a webpage that includes two images is registered as three hits (html page, image one, and image two). A visit is a visitor that comes to the web presence (the decided idle time determinates how long a visitor stay normally on the web presence, if browsing continues a new visit will be counted) A visitor is identified through the IP-address. (ABB, 2004)

Page-/ Ad-clicks: Page-/Ad-click is the amount of clicks a particular page or an advertisement of a web presence gets (Gardon, 2000: 230; Krause, 1999: 288). It can also be interpreted as the clicks a specified object in the web presence gets (Ahlreep et al.: 125).

Unique visitors: Unique visitor is the number of different visitors on the web presence during a certain time. This is done by identifying visitors through passwords or IP addresses. (Barowski & Müller, 2000: 179; Dynia, 2002) Unique visitor means that the same visitor is counted as only one even if they have accessed the web presence at various occasions during the observed time period (Anonymous, 2004a).

Repeats: Repeats is the number of returning visitors during a specific time period (Dynia, 2002; Baltas & Karayanni, 2003). Repeats count the visitors that have visited the web presence more than once during the time period observed.

BEHAVIORAL MEASURES

Page view/ Page impressions: Page views or impressions are hits to the files that are defined as pages on the server (ABB, 2004). From the marketing point of view especially pages that have significance to the offerings, are important. (Gardon, 2000: 229; Baltas & Karayanni, 2003; Krause, 1999: 288) In other words it is the amount of views on pages or elements of web presence that have marketing content (Barowski & Müller, 2000: 175).

Visiting-time/Ad-view time: Visiting- or view-time is the time the visitor spends viewing a page/ad of web presence (Gardon, 2000: 229-230; Krause, 1999: 288; Swamy, 2002)

Click-through-rate/ Ad-click-rate: Click-through or ad-click rate is the relation between a page/ad-click and page/ad-view (Gardon, 2000: 230; Krause, 1999: 288). It measures the degree, which the visitor interacts with the web page/ad (Baltas & Karayanni, 2003). Click-through-rate is the percentage of clicks an element of the web presence gets in comparison to the hits that the site in which the element is in gets (Anonymous, 2004a).

VISITOR MEASURES

Registrations: Registrations are the number of user registrations measured during a specific time or as the total number (Dynia, 2002).

Logins: Logins are the number of logins that occur during a specific time period (Dynia, 2002). In other words the amount of identified users during a defined time period (Ahlreep et al., 2000: 125).

4.3.2 Conversion Rates

The problem of conversion rates is determining the cost or the revenue created by web presence or web action. Web presence affects also other revenue channels. This is way rewarding indirect revenues or sales for web presence is difficult or they are not included in the measure at all. The costs web presence creates are more easily definable.

Thousand-Contact Price/ Cost per Thousand (CPM): CPM means the cost of the advertisement of web page divided by the number of views (quantitative) or clicks it gets (qualitative) (Gardon, 2000: 230). In other words it is the cost of accumulating thousand views for the web presence (Barowski & Müller, 2000: 168).

Cost per Order: Cost per order measures how much the creation of an order through its web presence costs the company (Barowski & Müller, 2000: 168).

Cost per Contact: Cost per contact is the relation between the costs of a web actions and the amount of customers it reaches (Blankenhorn, 2000).

Order/ sales-rate: Order/sales rate is the number of orders through web presence (Krause, 1999: 288) or the number of sold products through web presence (Morath, 2000: 258).

Leads-to-sales rate/ Conversion rate to purchase: Conversion rate is the percentage of leads that are turned into sales (Dynia, 2002). The percentage of turning visitors into buyers (Berry, 1999; Jaleshgari, 2000).

First time visitor conversion/Repeat visitor conversion: Visitor conversion is the percentage of first time users/repeat users that make a buy (Berry, 1999).

ROAM: return on assets managed (Benoy et al., 2001).

ROI: return on investment (per visit or overall) (Benoy et al., 2001; Swamy, 2002).

4.3.3 General Measures

Web sales revenue: Web sales revenue means the earnings from the sales through web presence. Though it is an attractive approach for measuring success it has limitations since generating sales is not the goal of all web activities. (Huizingh, 2002b)

Sales revenue: Sales revenue is the earnings from all channels and not just the sales through web presence (online sales). It measures web presence also since the web presence can boost sales made through other channels. This is because it helps the purchase decision but not always order placement (reluctance from the customer or not provided by web presence). (Vonder Haar, 1999)

Web sales-sales ratio: Web sales – sales ration measures the percentage of web sales from all sales (Berry, 1999).

Customer satisfaction: Satisfaction measures how pleased the customers are with the web presence (Huizingh, 2002b; Rohan, 1999).

Customer lifetime value: Customer lifetime value determinates the lifetime value of a customer. The costs of attracting a customer is compared to the profits the customer makes (Rohan, 1999):

Customer loyalty: Increase in customer loyalty through web actions (Huizingh, 2002b).

Increased switching cost: Increase of the cost of changing to competitor (Huizingh, 2002b).

4.3.4 Other Measures

Hard numeric measures do not always apply or are not sufficient to measure the success of web presence. This is especially since not all the benefits from it are directly measurable (e.g. time savings or increased communication efficiency). (Bossart & Haite, 2000: 101-110) Also the benefits (direct or indirect) of web presence on availability 24/7, R&D, logistics etc. are not easily measured by numeric means (Barowski & Müller, 2000: 90-93).

Time savings: The extent to which web presence allows the customer to save time on conducting the transaction and also finding the information needed to decide on the transaction (Amit et al., 2000).

Reduced cost of marketing: The amount of money saved in inefficient marketing activities through improved marketing intelligence by web presence (Morath, 2000: 19).

Reduced cost of customer service: The money saved on directing customer service to web presence (Morath, 2000: 19).

4.4 Other Statistics

Apart from success measures other kind of information needs to be gathered through the web presence. This information helps to optimize web presence activities and remain successful. (Dynia, 2002) Different analyses tell if the structure of the web presence and its elements are working out the way they were planned (Siebert, 1999: 62). Finding out the habits of customers also online makes sense considering the amount of money invested in the web efforts (Coopee, 2000).

Viewed pages: The pages a customer views during the visit on the web presence (Dynia, 2002).

Content analysis: Analysis of data from feedback, guest books, formulas, emails, and other communication channels regarding web presence content (Krause, 1999: 288)

Path (Favored content): The navigation path of the customer on the web presence (Dynia, 2002). It sheds important light on the preferred content which is most viewed by visitors (Krause1999: 288). So it tells the most popular pages that work and the pages that need improvement (Rohan, 1999).

Navigation analysis: Path information and favored content information together provides the basis for navigation analysis. It is information on how the visitor moves in the web presence and further pushes to investigate why some pages get little or plenty of attention. (Rohan, 1999)

Entry point: Entry point is where the customer enters the web presence (Dynia, 2002). Knowing which other web presences send visitors to one's own web presence can be a reason to develop a partnership or at least explore the opportunity (Rohan, 1999).

Exit point: Exit point is where the customer exits the web presence (Dynia, 2002).

Also other kind of information for example on repeat visitors that do not place on order or take other kind of preferred action helps further develop the web presence – making all kind of information collectable important (Rohan, 1999).

5. SUMMARY

Before moving into the empirical section of the thesis should the theoretical section be summarized. This helps to tie the different theoretical chapters together into a holistic entity. The intention of the summary is also to clarify the hypothesis derived from the theories.

The summary is divided into two parts. This is done for clarity and it bases on the main research question (How to build a web presence and to measure its success in the B2B markets?). These are the web presence building process (how to build a web presence) and the web presence performance evaluation (how to measure web presence success).

5.1 Web Building Process

The web presence building process can be divided into five separate steps. These are the steps of evaluation, strategy formulation, plan formulation, blueprint formulation, and the implementation. The evaluation step brings together the corporate goals and objectives with the knowledge of the web presence potential and its applicability to the company. The strategy formulation step spells out the concrete competitive advantage from web presence that creates return on investment. Important is the coherence of it to overall corporate strategy and other strategies. The plan formulation step focuses on the content issues – the desired characteristics, features, capabilities, and information. It explains how a unique customer experience is created. The blueprint formulation step addresses the technological issues and specifications of the web presence building before it is implemented. The steps can be overlapping instead of moving from one step to another consecutively.

5.2 Web Presence Performance Evaluation

To evaluate web presence performance a framework can be synthesized from the theory (see figure 22). The stage on which the web presence is, is determined by the intended benefits. Equally the benefits are also determined by the stage the web presence achieves. The stage sets the framework and limits of the possibilities of the web presence. This means that the success of a web presence (or a part of it) can be determined within a certain stage or the entire stage model. In certain stages only certain benefits are possible and in so only certain objectives are achievable.

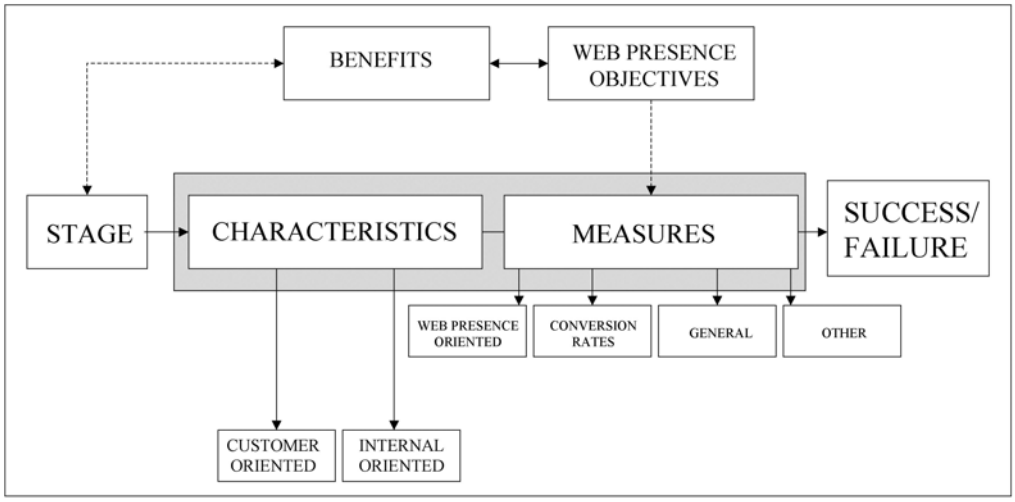

Figure 22 Web Presence Performance Evaluation

The actual success or failure of the web presence performance is determined through two sets of evaluation tools. There are the success characteristics of a web presence on one side and on the other side there are the measures. The characteristics are divided into customer oriented (content, interest, entertainment, informativeness, actuality, personalization, trust, interactivity, usability, convenience, connectivity, and loyalty) and internal oriented (performance – technical, responsiveness, and information gathering). The evaluation of customer-oriented characteristics requires customer feedback as the internal oriented characteristics can be evaluated internally.

The other set of tools are the measures. They are divided into four categories. The web presence oriented measures are activity measures (hits/visits, clicks, unique visitors, and repeats), behavioral measures (views/impressions, visiting/view time, and click through rates), and visitor measures (registration and logins). The conversion rate measures (such as cost per order or contact or leads to sales) combine data from the web presence oriented measures to other company internal data.

General measures are traditional performance measures. Especially when measuring communication channel applicability must web presence be evaluated by the same measures as offline media. Web presence performance is also reflected in the overall business performance and measures should reflect the business drivers and company goals. Other measures are time and cost savings.

The empirical section of the thesis will concentrate on the applicability of the web presence oriented measure as the conversion rate measures. The evaluation of the other measures would require an extensive survey especially on the time savings from customer side. Also the evaluation of cost saving would require an extensive audit and survey results from the customer. This exceeds the resources of this research. This applies to the general measures also apart from sales revenue.

6. ABB WEB PRESENCE

After examining the theories of web presence building, its benefits, and the measuring of web presence performance the thesis turns now to its empiric section. This chapter focuses on ABB web presence. It shortly presents ABB, looks at its web presence building process and the benefits gained from it together with its performance measuring.

ABB is a Zurich (Switzerland) based company, founded in 1988 through the merger of the Swedish Asea and the Swiss BBC Brown Boveri. Over half of the revenues come from European markets, almost a fifth from Asia, the Middle East, Africa, and around a quarter from Americas. All together ABB is present in around 100 countries with revenues of 18,795USD in the year 2003. Worldwide the amount of ABB employees reaches about 115,000. (Annual Report, 2003)

ABB provides utility and industry customers with power and automation technologies. It is a leader in both technologies and enjoys market as well as technology leadership in electrical machines, drives and power electronics, low-voltage products, instrumentation, controls, and robotics segments. (Welcome to ABB, 2002: 2-4)

ABB links core production processes with information systems and internet. Through it ABB offers speedier ordering and better solutions to run, service, and maintain its products. (Welcome to ABB, 2002: 2, 5) The competitive advantage of ABB lies in technological leadership and pioneering spirit to innovate (Annual Report, 2003).

Since ABB offers a huge array of product and system solutions this thesis provides only an overview of the overall ABB web presence. Because of the different industries ABB serves and the level of complexity of the products and solutions is the ABB web presence also fragmented to cater for theses requirements. The focus is on the web

presence controlled and managed by ABB Stotz-Kontakt at Heidelberg, Germany. This includes the www.abb.de/stotz-kontakt and the English product version of these pages – Low Voltage Products: Building systems, Control products, and Installation devices – at the global ABB Group www.abb.com.

6.1 Web Presence Building and Its Steps at ABB

The first e-business solutions of ABB were reactions to local geographic or product management pressures. In so they tended to serve the specific needs of a product group or region. The number of solutions created to solve the same problem added expenses and complexity. (Executive Summary, 2004) Web presence was a decentralized effort, each department or business unit designing and implementing their own visions (Biewendt, 2004a). Since then ABB has moved towards a single interface to connect with customers (Executive Summary, 2004) and guidelines as well as platforms for overall ABB web presence have been created to bring all efforts together (Biewendt, 2004a).

At ABB e-business is not seen as a replacement for existing sales channels but as a compliment. Ordering standard products through BusinessOnline automated electronic processing systems is enabled. Customers are also offered personalized premium pages and service functions are performed with the aid of internet. In addition it has introduced Industrial IT, which is a business model architecture with and integrated technology strategy. In so web presence is not only transaction oriented for ABB but also a tool to improve the communication and interaction processes to add more value. (ABB, 2004)

ABB build its web presence together as the technology grew. That is why the process of web presence building was not very pragmatic. Like

stated before the initial web presence efforts were scattered across a big organization and a wide array of products. (Biewendt, 2004a)

Steps that would be compatible with the Web Presence Building Model presented in the theoretical section of the thesis are not distinguishable. In the beginning the efforts were much unorganized, were not strategically liked to company operations, and were build on a more amateur base (Biewendt, 2004a). These diverse and separate first web presence efforts around ABB Group were initiated around 1998. To unite and unify these efforts a Global Web Management Group has existed for 4 or 5 years. It was founded when it was seen that these scattered efforts did not benefit the Group and wasted resources. Global Web Management coordinates and controls the web presence activities ABB Group wide. The strategies and guidelines are implemented through country, business unit, and department level. (Biewendt, 2004b) So by ABB Group overall guidelines and a platform for web presence efforts have been introduced now on all web actions of ABB.

Improving web presence is an ongoing process. Global Web Management manages it. The unifying of the ABB web presence has moved from the overall look of the web presence to more detailed parts of the web presence. (Biewendt, 2004b)

6.2 Web Presence Performance Evaluation at ABB

The ABB web presence is presented through the Stage Model framework. Also the other performance evaluation tools that are used currently at ABB are looked through the model presented in the summary of this thesis. This model is complemented later in the analysis chapters of ABB web presence.

6.2.1 Stages of ABB Web Presence

From the previously presented web presence Stage Model the web actions of ABB web presence are grouped (storefront, dynamic, transaction, and e-business). ABB web presence is not only at one level (Biewendt, 2004a). So instead of looking at the stages of web presence in time the division into these categories is made on the current web activities.

ABB GROUP

STOREFRONT

Homepage

The ABB website (www.abb.com) is the site for public ABB web presence and web activities. It is designed to serve the needs of all its stakeholders. The homepage of this web presence provides an overview of ABB and its activities. (ABB, 2004)

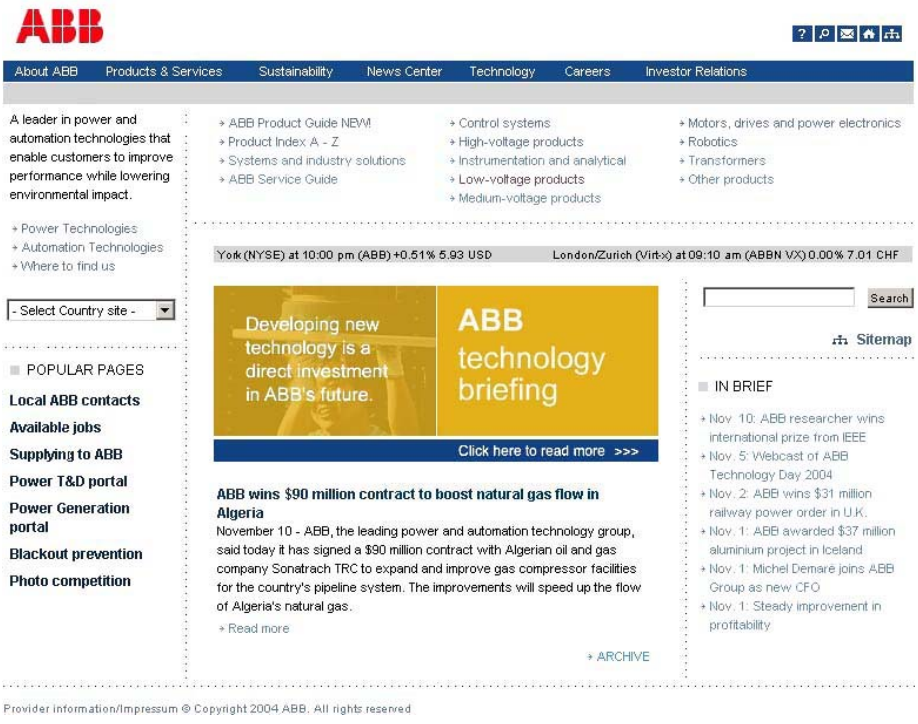

Figure 23 ABB Group Global Homepage (www.abb.com, November 11th, 2004)

Through direct entry from the homepage to the product and service guides, the industry portals, the country sites, and the Industrial IT *navigation* is made simple (see figure 23). In addition to making it easy for the customer to do business with ABB through its web presence *contacting* (to create feedback and dialog) ABB is facilitated by contact buttons. (ABB, 2004)

There are 52 country sites included in the ABB web presence that vary in their content. Some rogue sites (not official sites containing ABB news and general information or more advanced offering functionality different from abb.com) exist. Visitors on these sites are intended to be redirected to the official abb.com since they confuse customers by not being coherent with ABB web image or its web presence strategy. (ABB, 2004)

ABB Web Design Standards exist to ensure consistency and quality for ABB web presence. Supporting and using the common visual profile the ABB brand is strengthened. ABB is presented as one company and it makes the websites easy to use and understand. In the ABB Web Design Standards for page structure, navigation, templates, color palettes, typography, visual elements, masterhead, interaction elements, and applications and tools guidelines are provided. (ABB Visual Identity, 2004)

Linked in the Virtual World

The use of banners is very little since there is very little need for them. Banners on external sites are used with caution and the use is controlled. They are mainly placed on product related portals for promotional reasons. Within the ABB web presence banners are not used. (Biewendt, 2004b)

Links are not used as a general rule within the ABB own web presence. Links to ABB web presence in external sites are hard to manage but

through feedback for example information about these links is received. Undesirable links are removed if possible. (Biewendt, 2004b)

The searchability of ABB web presence was previously a problem. They were dynamically built which made it difficult for search engines to find them. Special bridge pages were created to hold static information searchable for search engines. The bridge pages would lead to ABB web presence. The development of search engines has made the bridge pages unnecessary. There are guidelines of ABB Group for building pages so that they also score high in the searches through search engines. (Biewendt, 2004b)

DYNAMIC

ABB Product Guide

A catalog like product guide to the offerings of ABB is provided online. This catalog can be browsed by product categories or alphabetically. Systems and Industry Solutions information is also provided through industry specific pages (it is also linked to the product catalog). For contacting ABB links are placed in the Product Guide and the Systems and Industry Solutions. (ABB Product Guide, 2004)

Focus on presenting products online is on technical information (e.g. features, benefits, specifications, and documentation) and it is not just to repeat information from printed brochures. Some marketing brochures though are included as downloads. As a guideline for each product also image, links to related products, sales, support, training, spare parts, service contact, etc. is provide. (ABB, 2004)

The Product Guide also withholds Online Product Selection Tools for some product groups. It helps to convert the old ABB product ranges into the new ones, helps to select the product which best fits to the customer’s application, helps to coordinate different products, and helps select dimensional drawings. (ABB Product Guide, 2004)

Industry Portals

Industry portals strive to be a part of the core business of ABB. Direct navigation and easily understandable structure are essential components of a web portal aiming to be customer friendly. Industry specific portals are good for creating a one-branch entry into ABB product database and especially for providing current information. The several portals also include application examples, references, and industry specific news (ABB, 2004).

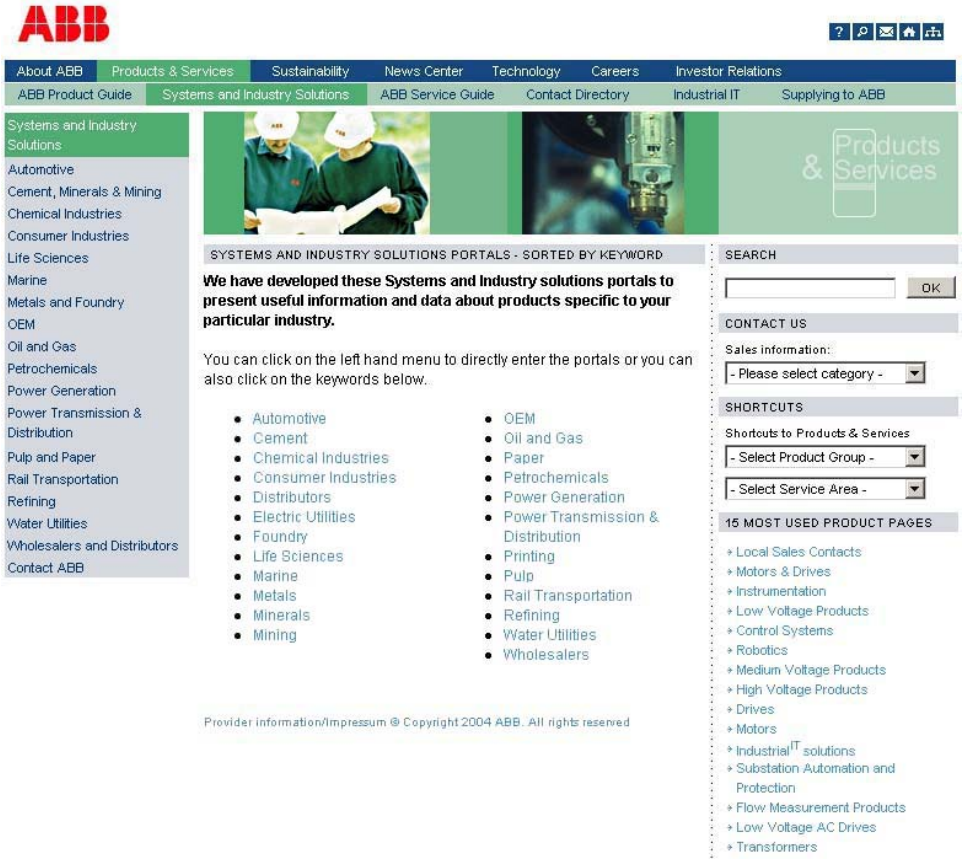

Figure 24 ABB Product Guide (from www.abb.com, November 11th, 2004)

The systems and industry solutions portals present useful information and data on products that are specific to a particular industry. ABB portals include Automotive, Original Equipment Manufacturer (OEM), Cement Oil and Gas, Chemicals, Paper, Consumer Industries, Petrochemicals, Distributors, Power Generation, Electric Utilities, Power Transmission & Distribution, Foundry, Printing, Life Sciences,

Pulp, Marine, Rail Transportation, Metals, Refining, Minerals, Water Utilities, Mining, and Wholesalers (see figure 24). (ABB Portals, 2004)

Multimedia Use

Videos and webcasts are available on the global group web presence. Some are also in the country specific ABB Germany site. Within the focus area of web presence is the use of multimedia elements very little. At the moment only one video is available. (Biewendt, 2004b)

TRANSACTION

BusinessOnLine

BusinessOnLine provides a single order entry capability for all Automation Technology and Power Technology products and parts through web, EDI and Marketplace Integrations interfaces. This global Order Management System brings a unified content management for all ABB products and integrates ABB Library for product information as well as Operating Management System (OMS) and Enterprise Resource Planning (ERP). It also allows complex product configurations. It benefits the ordering process by giving access to product information, placing orders, and providing tracking and order history (ABB, 2004).

To customers engaged in the BusinessOnLine it is an online business tool that enables the customer to choose the desired product, as well as find out the availability and agreed price (see figure 25). Additional features and supplements can also be added into the order. Product specific information and technical documentation is also available. In most cases immediate confirmation and tracking of the order is possible. Business OnLine web front end is available in some markets. (ABB, 2004) This means that Business OnLine is not available for all ABB products.

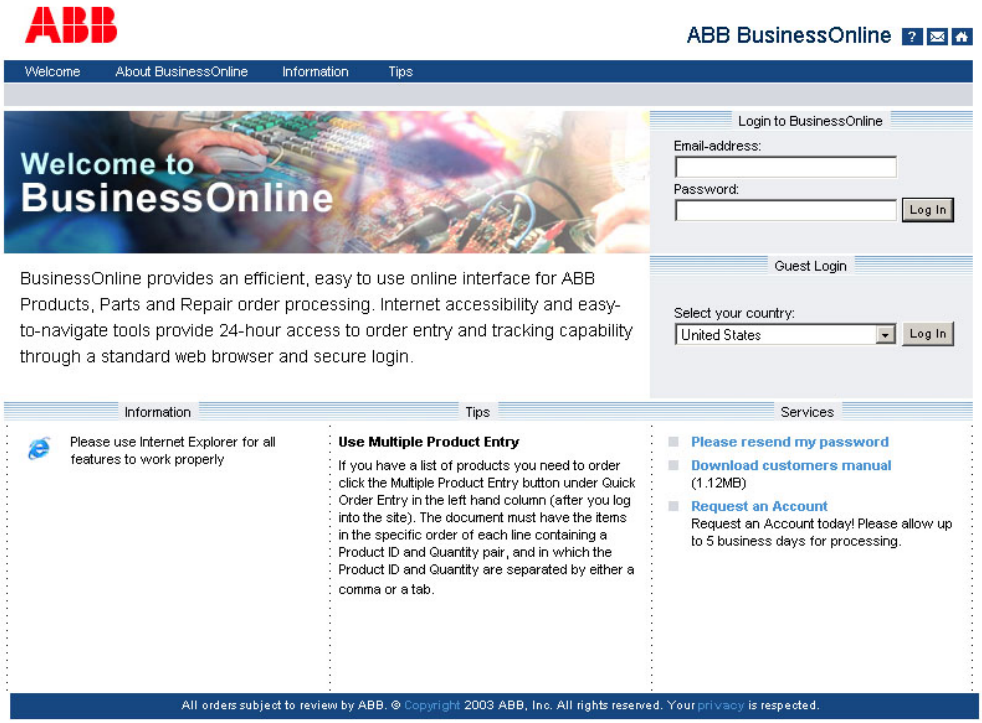

Figure 25 ABB Business OnLine Entry Page (http://ace.abb.com/webapp/BOL/ACE/login.jsp, November 15th, 2004)

Business OnLine is still at its first phases. A full-scale adaptation of Business OnLine throughout the ABB Group is questionable because of the complexity and the wide range of the product offerings. Therefore is especially pricing complex. It does not make sense to develop a specified solution for all different purposes. What is beneficial for ABB Group wide is the tracking possibility offered through Business OnLine and the product selection tools. (Biewendt, 2004b)

Premium Services

ABB Premium Services offer customers a single point of entry to work online with ABB. It is a tailored web front-end that supports eCRM. It provides customers with a collection of targeted ABB information and applications. (ABB, 2004)

For a Premium Service customer customized navigation is build for its specific organization and language needs (in exchange to a fee). Through this single location, access to all ABB applications is provided.

This gateway integrates existing content with customer specific information. Authorized ABB and customer team members can add and maintain this information. The information is managed through content tools. The Multiple Security Layers secure environment for sensitive material and Site Statistics pre-build reporting tools provides information on usage. (ABB, 2004)

ABB Premium Services hold two main elements: The Customer Working Environment (CWE) and The Value Added Applications (VAA). The CWE is the basic functionality that establishes the online relationship and enables the delivery of VAA. All ABB e-business tools can be accessed through the CWE making ABB Premium Services an integrated collection of ABB online tools for its customers. (ABB, 2004)

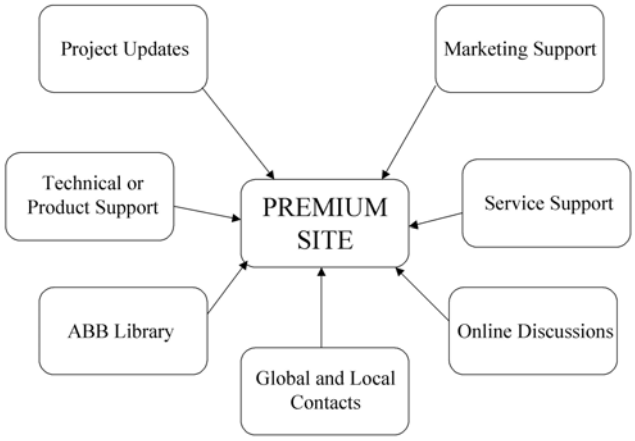

Figure 26 ABB Value Added Applications (ABB, 2004)

The CWE holds Account Team generated content (contacts, downloads, FAQ, and news), e-security (single login and user management), abb.com (industries and countries), and personalization (my profile, my interests, and my services). The VAA are the different elements of commerce, marketing support and content, future e-services of ABB, repair and replacement parts, knowledge bank (solutions bank), collaboration project management service, and configurator/web engineering (see figure 26). (ABB, 2004)

E-BUSINESS

SolutionsBank

IT applications that aid Customer Support services include SolutionsBank, Support Directory, SupportLine, and PowerHelp. Access to SolutionsBank is offered through registration though value added functionality. Premium information is available only by paid subscription (ABB, 2004).

Figure 27 ABB Solutions Bank Entry Page (http://solutionsbank.abb.com/sbhome/, November 15th, 2004)

SolutionsBank is the source for all technical product information. It includes manuals, service bulletins, troubleshooting guides, software downloads, and video instructions. Also access to view support cases or contact support representatives for online assistance is given. The intention is to provide 24h assistance. Customers are also automatically

notified of new product information, linked with other ABB services, and customer forums. The ABB SolutionsBank contains TechInfoBank, KnowledgeBank, SupportView, Forums, DownloadBank, Manuals OnLine, AVIBank, and Auto Notification (see figure 27). (ABB, 2004)

TechInfoBank is the link to information repositories of ABB. With it information can be found quickly and easily on *references* – reference tables with latest revision and compatibility information, *technical bulleting and application guides* of up-to-date technical supplements describing system maintenance and configuration procedures, *technical change notices* – documents that detail modifications and enhancements (also new software releases and hardware design changes), and *recent documents* can be searched by date, product or document type. KnowledgeBank is a resource for locating software and hardware solutions online. It is a self-service, case-reasoning database. AVIBank holds the video instruction files online. The instructions hold step-by-step procedure demonstrations for software products and tools. Customer Forums are a platform that provides a variety of discussion groups. It creates communication channels for customers for information and idea exchange. DownloadBank allows browsing and downloading service packs, release notes and updates. They are available immediately upon product release. Manuals OnLine gives access to product manuals online. Operation and maintenance information is quick and easy to locate. SupportView provides tracking information on the progress of open support cases. Also history information on closed support cases can be reviewed together with the resolution time and total number of cases logged. emmediateAgent facilitates accelerated response time by providing direct online access to technical support personnel. Live chat feature and immediate product support access requests can allow information delivery within seconds. (ABB, 2004)

Industrial IT

Industrial IT is an information architecture that links multiple applications and systems seamlessly real-time. This is achieved by providing advanced, pre-engineered products that are ready-to-use and reusable across many tasks. Easy configuration, installation, and moving within the enterprise allow real-time information on each Aspect Object (component) and other Aspect Objects connected to it. Navigation of objects and their structures happens through ABB Plant Explorer built on Microsoft's Windows Explorer. (ABB Review, 2002: 8)

ABB Aspect objects are information enabled building blocks that make all ABB products compatible. The Aspect Integrator Platform is the common software architecture that supports the navigation and managing thousands of plant devices with the same ease as the files of a desktop PC. (ABB, 2004)

All ABB products (software, hardware and service) are Industrial IT enabled and so have the ability to be combined in "Plug and Produce" manner with other Industrial IT products. Industrial IT benefits manufacturing and process plants through easier deployment of information enabled products, and integration of products from multiple ABB business areas and partners. Operations are simplified through access to real-time information, productivity through better interaction among components, and easier engineering of new systems. (ABB Review, 2002: 12-13)

There are different levels of certification for products in Industrial IT. Level 0 – the Information Level, Level 1 – the Connectivity Level, Level 2 – the Integration Level, and Level 3 – the Optimization Level. The levels are accumulative so the higher levels have the qualities or the lower levels. (ABB Review, 2002: 12)

Information: Products have identification, documentation aspects (manuals as well as CE marking and environmental declarations), CAD data, and technical data and product classification.

Connectivity: Products can be connected to into the Industrial IT system and they also can also work within this system. Hardware can be physically connected through the defined and approved interfaces, and software can be installed and handled in a consistent manner. The product should work without disturbances in its environment and basic data can be exchanged via defined protocols.

Integration: This level of certification ensures that extended data (e.g. status and maintenance) can be exchanged via defined protocols. Also Aspect System functionality is available.

Optimization: The product is fully integratable into an Industrial IT system and is capable of all Industrial IT functionality.

With Industrial IT real time information on configuration, cost and purchase data, control software, current location, maintenance records, engineering drawings, performance, and cost of ownership is provided. It keeps asset information from multiple platforms together. (ABB, 2004)

To make sure the correct deployment of the Industrial IT products towards every link of the customer value chain different functional categories (somewhat 30) exist. A product can be placed into one or several of these Product Suites or “folders”. Design IT, Operate IT, Produce IT, Protect IT, and Optimize IT are some examples of these folders. (ABB Review, 2002: 13)

ABB STOTZ-KONTAKT

As the ABB Stotz-Kontakt managed web presence is a part of the ABB Group web presence the same web design standards apply to it. This website contains product information, news sections (on new products, product improvements, etc.), contact information, and general information on ABB Stotz-Kontakt (see figure 28). Some inconsistencies exist still in comparison to the ABB Group site, as the process of unifying the product pages is not yet completed but undergoing (Biewendt, 2004b).

At ABB Stotz-Kontakt a trial version of customer forums within selected customer groups is being initiated. To create a truly two-way communication channel this lets customers also interact with each other. This is hoped to benefit the feedback of the web presence as well as product development of ABB. (Biewendt, 2004b)

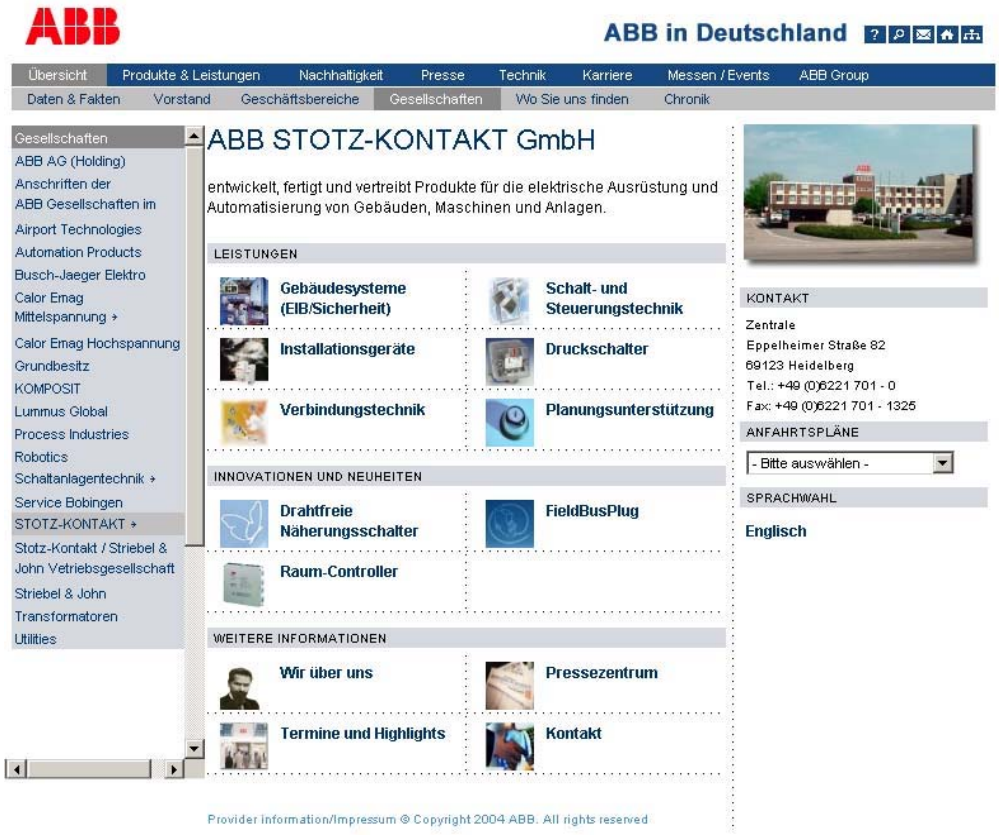

Figure 28 ABB Stotz-Kontakt Homepage (www.abb.de/stotz-kontakt, November 11th, 2004)

6.2.2 Benefits of Web Presence

Web presence brings benefits for customer as well as ABB. By empowering the customer with information when needed is added value created. Important is providing information, documentation downloads, and software downloads through web presence. This speeds up the work of the customer. (Biewendt, 2004b)

For ABB a customer (or a potential customer) that feels has better value from ABB than the competitor brings sales. In the business environment that ABB operates in, especially in the environment of ABB Stotz-Kontakt the customers are very information and object driven. When they do no find the desired information from ABB web presence they turn to the competitors. As a communication channel the emphasis is on providing information and contact information to the customer. It is a supporting channel for communication among other channels. For distribution of documentation and software web presence creates a cost effective distribution channel. (Biewendt, 2004b)

The biggest benefits of web presence for ABB are in providing a communication channel, a distribution channel (documentation and software), and customer service. In CRM the greatest benefits are in customer service. Through information giving over the web presence the need for other kind of contacts for customer service is made unnecessary.

6.2.3 Objectives of Web Presence at ABB

As stated before well-defined objectives are essential for successful measuring of web presence. Clear objectives make the selection of measures more likely correct. Therefore first the objectives ABB as a global organization are looked at and after the precise objectives ABB Stotz-Kontakt has.

The Web policy spells out the focus of ABB web presence (ABB, 2004). These focus points give the direction to the ABB web presence on what the most important things for it are.

1. Content:

Facts and documentation have the emphasis over traditional promotional material. All information that is regularly or on request sent to customers has to be available also online. The *content*, not the design features are important. The presentation of the content is to be straightforward and in easily readable language. Restrictions are placed on image and other components that do not add value but might compromise the sites opening time. Presentation aims also to be logical to outside users and so is not necessary consistent with the way ABB is organized. The abb.com is the main access point to ABB web presence. Trough *navigability* other relevant and valuable content is made available. In most marketing material abb.com is to be promoted though exceptions on URL-shortcut usage can be made possible.

Quality up-to-date and relevant content is more important than the quantity. Maintaining content means regularly checking it to ensure it is current all the time. The country web sites provide information on the local and/or locally preferred business language. Content not available in this language is provided in English. Information of the full scope of ABB offerings instead of only locally manufactured products is provided. The content *personalization* and *customization* tasks are coordinated through Global Web Management.

2. User expectations

ABB aims to meet or exceed *user expectations*. This is heavily influenced by what competitors do since service has to be equivalent or better. As users learn to use web material through the web presences of others as well, effects it the way ABB presents its. The purpose is

that the visitor finds relevant content without learning new ways of navigation. Apart from navigability, searchability has to be supported for finding information.

Web presence is to facilitate *contacting* ABB. Publishing email addresses is not allowed because of its high maintenance costs. Instead special tools for tracking of request handling exist to profit from the advantages of business opportunities. The privacy policy addresses the concerns of users.

3. One point of entry and common look and feel

A single point of entry is a *convenience* to users. Consistent navigation reduces training cost (time) in learning how an individual application works. Rogue sites that do not use the ABB standards waste resources and confuse customers and are so not allowed. Standards for ABB web presence are given in the ABB Visual Identity program applied when possible to third party applications. Only URLs leading to abb.com or respective national top-level domains are allowed in promotion.

4. Common containers and components

The Common ABB Web Platform (CAWP) maintains *consistency*, reduces duplication of effort and content, and requires only once training for all content providers. Additionally several supporting components exist that are mandatory.

In the ABB web policy also pillars for ABB web presence are identified (ABB, 2004). These pillars can be viewed as the wide objectives for web presence within the whole ABB Group (ABB, 2004):

1. **Value** to user: provide information that the user wants to learn instead of providing only information ABB wants to communicate. Quality of the content has the highest priority.

2. **Usability**: making it easy for users to find what they look for in the most user friendly way. Good user experience increases value of ABB web presence.
3. Strengthening the ABB **brand**: through a one-point entry to all ABB web offerings and using a consistent look and feel the brand image is reinforced.

In the past getting the basics right (e.g. logical navigability) for the web presence were the objectives. For 2005 three main objectives can be defined for ABB Stotz-Kontakt. They are the (Biewendt, 2004b):

1. The **unification** of the product information in regards to the documentation
2. The creation of **forums** for specified customer groups
3. The development of the **newsletter**.

The shift has moved in the objectives from information to interactivity. This shift comes from the desire to take better advantage of the opportunities of web presence for two-way communication. (Biewendt, 2004b)

6.2.4 Measures of Web Presence at ABB

In ABB intranet there is a site available with a wide range of reports on web traffic statistics. The statistic reporting of web presence is conducted through a program called Webtrends, a product of netIQ corporation (www.netiq.com/webtrends/default.asp). These reports are on general ABB web presence as well as specific parts of it – divided into company sites, country sites, portal pages, segment sites, specific databases, and specific pages/set of pages within sites. Within these broad headings of reports more specific report options exist. Also other statistics and on other parts of web presence are made available on

request. (ABB, 2004) Statistics reports are divided as following (ABB, 2004):

General Statistics
Resources Accessed
Visitors and Demographics
Activity Statistics
Technical Statistics
Referrers and Keywords
Browsers and Platforms

General statistics hold hits, page view, visit, length, and unique visitor information also combined with time, length, visitation rate, and visitor origin information for example. These statistics give an overview of the website performance and visitor behavior. Also visitor statistics in part tell about web presence performance on if it can draw return visits. (ABB, 2004)

Site statistics and trends help evaluate the effects of web initiatives. Especially changes that relate to specific sales and marketing activities give impression of the effects of these activities. Also conclusions can be drawn from the viewpoint of site management on how content and structure can be improved. Visitor statistics gives information about the visitor. Technical statistics with browser and platform information help webmaster in the technical optimization of web presence. Reference and keyword information improves the advantages of search engines. (ABB, 2004)

The statistics are used to find out if the actual use deviates from the expected. The analysis focuses on understanding the reasons for these deviations and if they represent a possible problem or an opportunity. When the use of the specific site is established continuous monitoring looks for changes to understand the effects of known actions and

events. Important changes are changes between different sections of the site and changes between time periods. (ABB, 2004)

Within the ABB Stotz-Kontakt measuring mainly includes only comparison of the traffic statistics (see figure 29) after changes in web presence. This means looking the development of views, visits, average time, and rank within ABB Germany web presence. Also navigation path analysis at some level is used to determine whether the content of specific pages is useful to customers or not. A customer survey through a separate pop-up had been conducted with a very poor answer rate. Therefore it provided very shallow results. Direct customer feedback through other channels is used in evaluation of web presence (direct customer contact). Most of the feedback though is negative on what does not work, rather than also telling what is good. (Biewendt, 2004a)

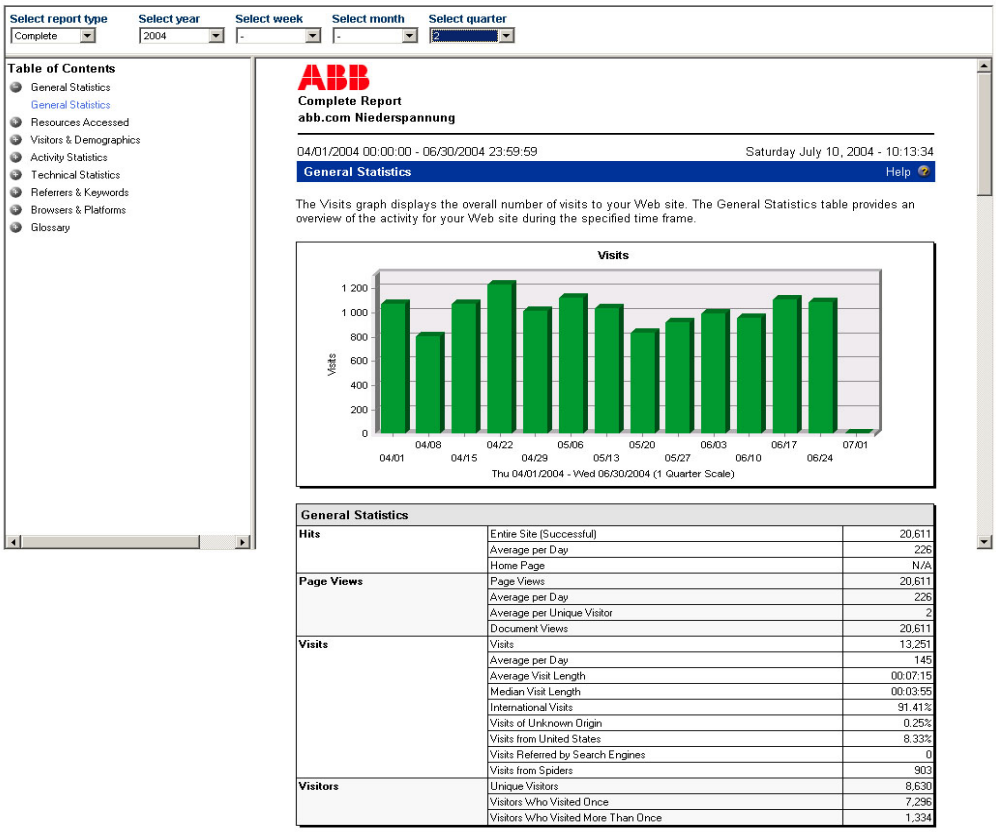

Figure 29 Example of General Statistics (Niederspannung – Low Voltage Products), Second Quarter 2004 (ABB, 2004)

The absolute performance of web presence is hard to define. This is especially true because many of the effects of web presence are indirect. Likewise as it is used as a supporting tool for all marketing activity are these effects of these joint efforts hard to separate. In the B2B environment where personal customer relationships are important combined with the complex nature of the products is measuring the web presence performance extremely complicated. Because of the complex products is direct contact with the customer almost always obligatory. This does not mean though that a customer would not use the web presence also to support the decision making process. (Biewendt, 2004b)

The number of views and visits on the ABB Stotz-Kontakt pages has risen steadily since 2002 (figure 30). A peak in the numbers occurred after the beginning of 2003. This is the time when the web presence went through a big change in the structure and layout (Wolf, 2004).

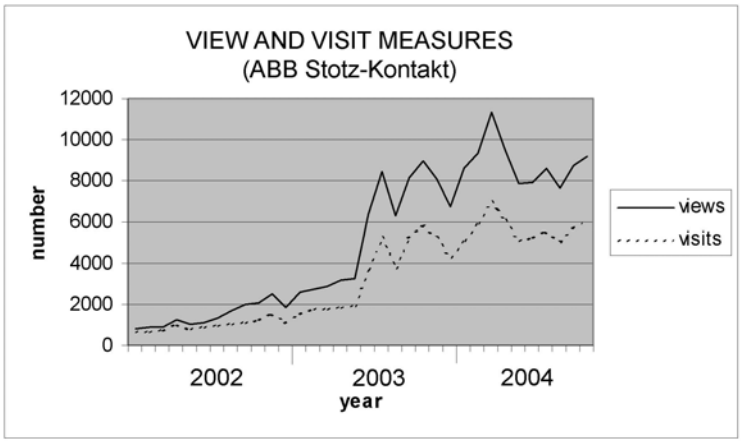

Figure 30 View and Visit Measures, ABB Stotz-Kontakt

The visitation time on the other hand has declined since 2002 (figure 31). In the beginning of 2002 the average visitation time was around 2,5 minutes. Now the average visitation time is around 1,5 minutes. In the beginning of 2003 the visitation time increased but then later started declining again. The increase might have been caused by the adoption of the new web presence structure and style. The shorter visitation time can mean that the visitors find faster the information that they want than

before. Shorter visitation times can also mean that the visitor becomes frustrated when not finding the information and therefore leave the web presence. Without direct customer feedback though it cannot be said for sure, which is the cause for changes in visitation time.

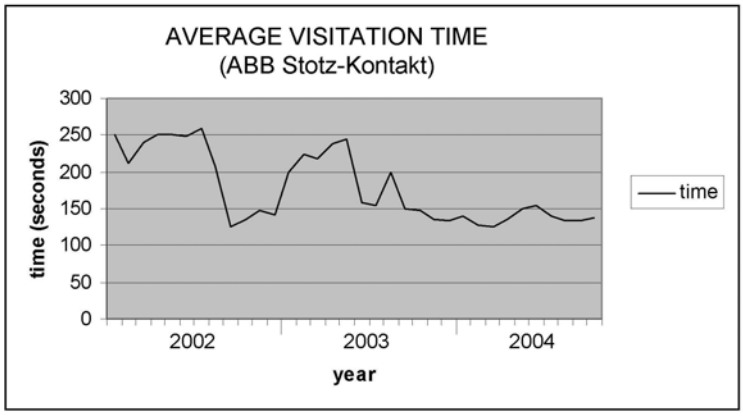

Figure 31 Visitation Time (ABB Stotz-Kontakt)

6.3 Collected Data Analysis and Use at ABB

The way ABB takes advantage of the possibilities of web presence to gather information that can be leveraged for marketing is the next focus. What other information than just performance measures ABB gathers and how it benefits from it.

6.3.1 Data Gathered at ABB

From the previously presented statistics report categories Resources Accessed, Visitors and Demographics, Activity Statistics, Technical Statistics, Referrers and Keywords, and Browsers and Platforms provide information on web presence. This information can be used to improve it.

The accessed resource statistics include views and visits per page, per document, per dynamic pages (database generated pages from visitor selected values), and per forms. This group also withholds exit and entry page and file statistics, single access pages, top directories, top

paths, top destination, most downloaded files, and most accessed file types information. This kind of information informs what visitors prefer on the web presence.

Visitor demographics tell who visits the site and how often. Geographical division (regions, countries, and cities) helps meeting the needs of target audience and discovers new target audiences. Information on most active organizations and domain types of the visitors give insight on who show interest and how web presence could be made more attractive for them as well as how other types of organizations could be attracted. The activity metrics mainly aid determining the need and the best timing for system maintenance but also how well the visitors find the content they came to look for. The technical statistics inform of the technical performance of web presence. The keyword and refer statistics can be used to find most effective ways and places to attract visitors as well as for search engine optimization. (ABB, 2004)

6.3.2 Data Analysis at ABB

New and improved information about the visitor is transformed into measurable benefits only when more informed decisions are made on this new insight. Important is to uncover the causes of the disapparencies and define alternative actions for changes. One alternative is no actions at all, but what changes (or not changing anything) are to be implemented based on the input of web statistics. (ABB, 2004)

Three generic actions have been defined for taking action. First changes to the site structure can be made depending on how interesting the visitors find a page or a page group. This means changing the accessibility (moving the page in the site hierarchy upwards or downwards, or through shortcuts), changing the scope

(topic or issue numbers, information depth, or revision/update rate), or changing the navigation (extensive changes in the site structure). Second changes to the promotion of a site can be made to focus the efforts on most effective channels. This is done by changing promotional channels (focus on successful promotion sites, focus on successful promotion site types, or focus on successful promotional page topics) or by changing the promotional message (change the design and placement of the promotion, wording, or theme). Last the use of keywords, title, and abstracts can be adapted. (ABB, 2004)

At ABB Stotz-Kontakt apart from the performance measures of views, visits, visitation time, and rank no other information is really taken advantage of. Even though it would be possible the real benefits of engaging in such activity are not convincing. It also undermines the established trust or the trust intended to establish with customers. While at least some of the customers are aware of the possibilities for information gathering through web presence (e.g. leads) they trust their business partner will not do it. (Biewendt, 2004b)

6.4 Analysis of ABB Web Presence

On the basis of the presented information is the analysis of ABB web presence made. The analysis is done by looking at how the web presence building process followed the steps of the model and how well objectives translate into measures that are currently used. Finally the web presence is looked at through conversion rates – a new measure for the ABB Stotz-Kontakt web presence.

6.4.1 Analysis of ABB Web Presence Building

As many companies, did ABB as well enter the internet with very unorganized, non-strategic efforts. This is understandable since ABB got involved with the electronic world when the technology was new

and the future prospects of it were unclear. There was a lack of or no existence at all of theories and best practices at the time. The field was little researched and the actions had therefore no theoretical base. The web efforts were in the hands of technology enthusiast.

Since then the managing of ABB web presence has evolved. A more strategic and pragmatic grip to it has been achieved. The efforts are now more professional. The Global Web Management Group has already created a strategy for ABB Group web presence. This strategy defines the basic objectives and the principles of ABB web presence. What lacks is the full implementation of it ABB Group wide, at all of its levels. This means that the strategy is still in the process of its implementation. The continuous development of this web presence has been kept in mind in adapting the monitoring of web measures (statistics). This shows as well in the guidelining of managing the web presence and how changes are to be based on information gathered. The guidelines also go under continuous improvement.

At current ABB has created a web presence that intends to take full advantage of benefits made possible by it. The Industrial IT effort integrates the internet into its products making the web through applications a part of the product. This has been presented in the theory as the ultimate adoption of the internet within a company (the e-business stage or the business transformation stage). Considering the involvement and the knowledge of visitors on the ABB web presence not everyone is looking for high-developed internet applications though. For this ABB has a wide range of possibilities to interact with its web presence. The web actions exist throughout the stage model spectrum.

6.4.2 Analysis of ABB Web Presence Objectives

At the ABB Group level the current set objectives are very generally stated. They are vision like statements of the direction of ABB web presence. This makes sense because of the mere range of customer

segments the ABB Group serves and the products it offers. In such a heterogenic field strict objective setting does not serve best the needs of all the different business units.

It seems that through improving web presence the underlying objectives are intended to be achieved. There can be distinguished two main objectives. The first is providing ***value*** to customer through quality content, meeting or exceeding used expectation (navigability, personalization, customization, and contacting facilitation), and through bringing convenience to the user. The second is strengthening the ABB ***brand*** through consistency by one-point entry and common look. As a strategy from the web presence Strategy Application Model by Huizingh (see page 27) these objectives serve the option of providing added value to current customers.

Within the ABB Stotz-Kontakt the stated objectives (unification of product information, forum creation, and development of the newsletter) are actions rather than objectives. As the objectives are set from the Group level are the objectives at the Stotz-Kontakt level forced to be more action like. What is still obvious here is that the linkage is missing from objectives to measures. This means how the success of these actions is to be measured. As for now the measures are the same regardless of the objective.

6.4.3 Analysis of Web Presence Benefits to ABB

The objectives presented can be binded more concretely to the benefits presented in the theoretical section of this thesis. Through value creation benefits arise to CRM, and customer service. Because the web presence creates a communication channel it can be used to strengthen the brand. Though not stated in the objectives other benefits of its web presence for ABB arise through the dimensions of distribution channel (easy and cheap way to deliver documentation and software),

and sales channel (Business OnLine efforts). They come as byproducts of the objective of creating value to customer.

The objectives can also be linked to the focus points. The focus points of content, and user expectations serve the objective of value creation. The focus points of one-point entry and common look and feel, as well as common containers and components serve the objective of brand strengthening. What seems to have been forgotten is that a well-defined objective is also measurable. In so what lacks in the objectives at ABB is the linkage from objectives to measures.

6.4.4 Analysis of ABB Web Presence Performance Evaluation

The created model, presented in the summary, is used to evaluate the web presence performance of ABB. This means evaluating the web presence on different levels – success characteristics and measures.

ABB Web Presence Success Characteristics

In order to analyze how well the ABB web presence fulfills the success characteristics presented in the theory section of this thesis a customer survey would need to be conducted. *Quality content, interest, entertainment, informativeness, actuality, personalization, trust, interactivity, usability, convenience, connectivity,* and *loyalty* are customer opinion focused characteristics. They cannot be assessed properly without customer feedback. As said before this kind of feedback would require a customer survey. The adopted policy at ABB Stotz-Kontakt on not conducting this kind of customer surveys due to poor results on previous intent makes finding out the state of these characteristics impossible. They can be evaluated without the customer feedback but this would be a highly subjective way. There would be also a high risk of error with this kind of evaluation. This is why these characteristics are not evaluated at all.

Performance, responsiveness, and user information gathering on the other hand are company-focused characteristic. They can be assessed internally. Evaluation can be made using statistics gathered through the web presence.

Performance: As there are no available statistics on the technical performance on only the ABB Stotz-Kontakt managed web presence the figures of the whole ABB Germany are looked at. Together with the error percentage of the whole ABB Group this gives an idea of how ABB and Stotz-Kontakt web presence performs technically. The performance level (the technical reliability of the web presence) has reached a very good level (figure 32). The failed hits percentage of ABB Germany has not reached much higher than 7%. At current it has stayed well under 2%. The Group hits failure percentage has stayed under 3% and recently under 1%. Though these can be considered acceptable percentages should there be follow-up on their development. Also all means should be taken to make the percentage smaller.

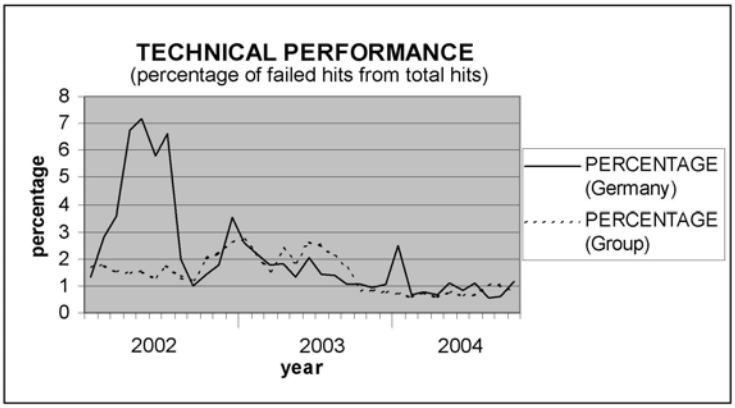

Figure 32 Technical Performance of ABB Web Presence (ABB GROUP and ABB Germany)

Responsiveness: No readily available statistics for inquiry response times are available. There was an internally conducted enquiry on web inquiry response percentage and response times in the spring of 2004. The results revealed that around 40% of inquiries are left without a

reply. As the objective of unreplied inquiries is around zero and response time less than 24 hours, the reasons for this high percentage were also roughly evaluated (together with the perceived benefits from it). In a fairly large amount of unreplied inquiries important contact information to enable a reply was missing. Also the form itself leaves some room for improvement, as it is quite difficult to fill out and process. The inquiries reaching ABB through other channels because of the contact information placed on the web presence should be noted as well as a contribution of the web presence. (ABB, 2004) Clearly there is still big room for improvement in the responsiveness of ABB web presence. One way to do this would be obviously making the contact form easier to use but also educating the employees of the benefits and importance of response. The same survey revealed not all are convinced of these benefits (ABB, 2004).

Information Gathering: The web presence is also enabled to gather information about the visitors (accessed resources, visitors & demographics, and activity statistics) but it is not yet used to its full extent. One reason for this is the nature of customer relationships – the high level of trust in the B2B environment. Exploring this possibility further might though present opportunities. Some background follow-up for example on whether or not the visitors been converted into buyers might bring information on how well the web presence performs. If a visitor finds the needed information and is convinced of the message, that visitor will place an order. So other information gathering would give insight on the internal performance rather than external customer, and thus not violate the notion of trust.

On the customer perspective characteristics a customer survey would be the best way of acquiring information. Some conclusion can though be done based on the web measures. For example the declined average visitation time can be a sign of visitors finding easier what they came to look for. This means for example better usability. Without

though digging deeper is this just an assumption and nothing more. The declined average visitation time can also mean that a visitor is unsatisfied with the web presence might look for information, not find it and in frustration leave the web presence.

ABB Measures

The measures used at ABB for its web presence performance are general and very web performance oriented. The success is measured mainly by web standards such as hits or visits. The used measures are looked closer through the division of them to web presence oriented measures, conversion rates, general measures, and other measures.

WEB PRESENCE ORIENTED MEASURES

Visit and view numbers alone do not reveal if objectives are met (unless of course the objective is to attract as many visits as possible, which is not the case here). Certainly visits give an overview of its ability to attract and retain (unique visitors measure especially) visitors but the visit numbers lack the link to the objectives ABB has stated. In addition visits do not shed any light on the underlying reasons for any activity on web presence. They are an indicator that does not explain the phenomena. So to use visits as the main and even less the only measure of fulfilling the objectives is not the best solution. Perhaps the poor ability of the measures is a direct implication of not linking objectives to measures. Also the lack of available web presence measures that measure its business performance is one reason.

CONVERSION RATES

The objective behind all company activity is profitability. Ultimately it is the objective of web presence also. For ABB this means generating more orders with the aid of its web presence. In other words this means

greater profits. (Biewendt, 2004a) In order to measure web presence performance at this level the applicability of new measures for ABB was evaluated. These new measures try to bridge the gap to provide information on the correlation of web actions and sales.

To get a better view of the ABB Stotz-Kontakt web presence the possibility to measure web presence success through conversion rates was explored. This is because it is more useful to combine the web presence statistics with other company internal data in the performance evaluation. It eliminates the web focus of the measure and ties it better with business performance.

From the current measures already used, some key measures were chosen to see how they correlate with revenue volume. The chosen measures were views and visits. The reason why they were chosen was that they are the most basic measures that are already at current monitored. The rank was left out because it is a measure of internal success of the different ABB web pages. The average visitation time reflects more the navigability and the quality of the content for example rather than financial success and therefore it was left out as well.

The other part of the data for the conversion rate is revenue. Due to the nature of ABB business is the separation of online sales and offline sales not possible (getting an order normally requires also direct contact with the customer because of the complex nature of the product and the nature of B2B business relationships). This is why the total sales of ABB Stotz-Kontakt were taken as the other company internal data. The period comparison period was from January 2004 to October 2004.

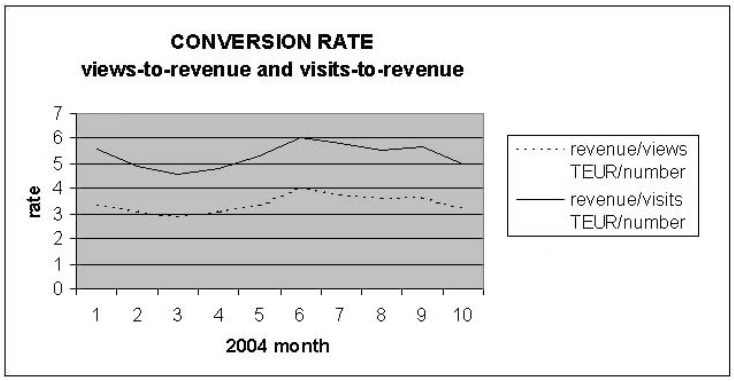

Figure 33 Conversion Rate (revenue/views and revenue/visits) ABB Stotz-Kontakt

The conversion rates during the comparison period have stayed around the same (figure 33). The view conversion rate has stayed between 3% and 3,5 %. The visit conversion rate is a bit higher in the range of 4,5% to 6%. When the conversion rates are compared to pure views and visits it can be seen the conversion rates balance out the monthly peaks or pits.

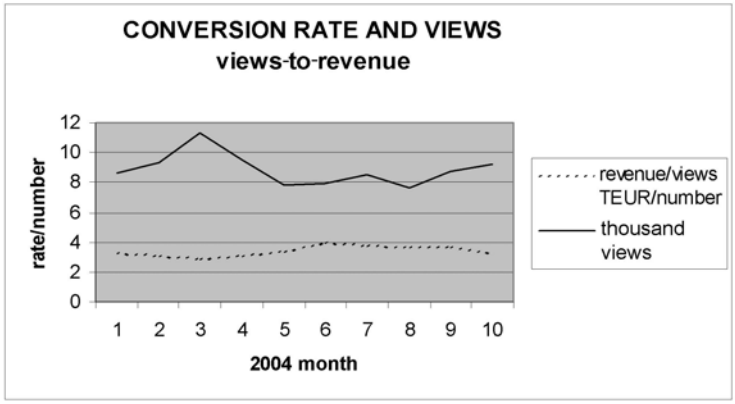

Figure 34 Views-to-Revenue and Views, ABB Stotz-Kontakt

When the conversion rates are mirrored closely to the views and visits curves it can be seen that the rate declines when the views and visits increase (figure 34; 35). This could mean that the revenues are not strongly linked with web activity. There are also numerous other things that influence sales. The visits-to-revenue seems to be a better measure than views-to-revenue. This might be because it is a more accurate measure on visitors than just views (definitions pages 64-65). Web presence at ABB Stotz-Kontakt merely provides added value to

customers so it does not increase revenue per se. Determining ultimate success in performance is difficult since these rates cannot be compared to previous year results due to denied access to these data sources and they cannot be compared to any industry wide results.

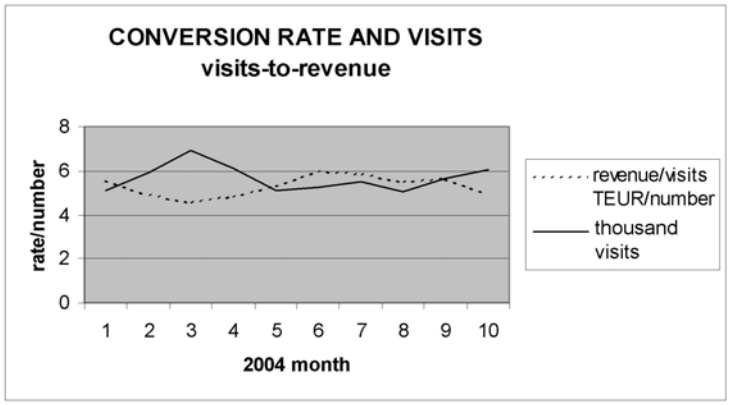

Figure 35 Visits-to-Revenue and Visits, ABB Stotz-Kontakt

GENERAL MEASURES AND OTHER MEASURES

The general measures depend on the specific actions done on the web presence and its objective. Depending on the objective of this action (build awareness, persuasions, etc.) is the measure for it selected. The ABB Group wide objectives of value creation and brand strengthening (not usability but it too though can be binded indirectly to value creation) are objectives that can be measured though general – traditional measures. Unfortunately no access to this kind of information was possible. This is why no reliable conclusion can be made on the performance of ABB web presence on the general measure of customer satisfaction, loyalty, or customer value can be made.

Internal time and cost savings would also require a more extensive analysis as well as customer time and cost savings. As stated in the summary these fall outside the resources of the research. The sales revenue has been taken into account in the conversion rates and so it would not bring any additional insight, especially since in the conversion rates sales revenue not web sales revenue is used.

6.4.5 Analysis of ABB Web Presence Performance

The ABB web presence can be said to be successful. This conclusion bases on a combination of a couple of measures. The most simple measures – the views and visits that show a continuous growth. Also in the light of the conversion rates examination it can be seen that a positive growth has been occurring during 2004. This means the ABB web presence has the ability to attract and retain visitors to its web presence.

It is difficult to say though without industry wide comparison of these measures if ABB Stotz-Kontakt web presence is performing well. Without this kind of comparison it is impossible to say if this web presence is performing above or under the average among its peers. Also to better determine the success of the ABB web presence a more detailed measuring and evaluation of the results should take place. Most important on the customer oriented success characteristics.

Especially for ABB Stotz-Kontakt important measures such as unique visitor and repeat visitor are not available. As well what makes the conversion rates somewhat unreliable measures on their own is the fact that the total sales of ABB Stotz-Kontakt are influenced by many other factors than just web presence. The fluctuation in the conversion rates can be caused by numerous not web action related factors. The web actions are only one of the factors that determine the success of the business of ABB. This is why the conversion rate can be distorted in one way or another. The influence of the other factors though is difficult to eliminate as online actions and offline action are intertwined in the business environment of ABB. In most cases direct offline contact with the customer is needed for the sale.

7. DISCUSSIONS

After drawn the conclusion of the performance of the ABB web presence can the thesis turn to its discussions. The discussions are divided into two parts. First there are comments for ABB in what could be improved in its web activities. Second there are comments on the applicability of the presented theories in practice.

7.1 Recommendations

Building Process of ABB Web Presence

The building process of ABB web presence happened in a different technological environment in which the theories of Web Presence Building base on. Instead of being a researched business field, the internet word was filled with opportunities and different development scenarios with a high level on uncertainty. This is why the clear steps of this building process were not passed in ABB. Instead of focusing on how the entrance in the web was made the focus should be on how this Web Presence Building Model can be used in the development of current web presence. In the revision of the web presence strategy and the action plan could this be a helpful tool.

Improvements to ABB Web Presence

The improvements or the development of the ABB web presence should be linked with clearly defined objectives. This means these improvements should be based on results on measures that are strongly linked with objectives. It makes sense that ABB at Group level states more general visions of objectives and the direction of the web presence. At the more ground level the objectives are more action oriented. What needs improvement is the linkage of measures to objectives. The objectives need to be linked with the intended benefit,

the action (or actions) that is to make achieving the benefit possible, and the measure that is to tell if objectives are met.

The feedback channels should be improved to understand the views of the customers of ABB web presence (success characteristics of quality content, interest, entertainment, informativeness, actuality, personalization, trust, interactivity, usability, convenience, connectivity, and loyalty). Some feedback is certainly available through direct feedback but the other feedback channels need not be disregarded. The bad experiences of the pop-up survey should not discourage and should not avoid thinking optional ways to gather information on customer impressions. Measuring satisfaction of a customer company is difficult though in a B2B relationship since it involves multiple individuals that form the overall opinion (Rossomme, 2003). This is the area in which the evaluation of customer oriented success characteristics fall. As though the users of the web presence are individuals is the evaluation of the success characteristics easier than the impression of an organization. The reluctance to engage in this activity is though understandable. More even so when taken into consideration mainly the problematic of validity of the measuring in comparison to the resources it requires (Rossomme, 2003). Maybe through the forums in development ideas and opinions from customers can be received.

With more information can more enlightened changes and improvements to the ABB web presence be made. Whatever future plans for web presence are made they should base on the measures and other gathered information not on irrelevant matters. The ABB Group strategy for web presence needs to become more rooted in the organization for the full advantages of it to materialize.

Improvements to Measuring Success

In the future the measures need to be more tightly interwoven with the objectives. The selected measures have to reflect the desired effects. At the moment this is lacking. The measures are not linked with objectives, which make it hard to make conclusions on the web presence performance. The same measures are applied in all parts of the web presence – regardless of what the intended benefit of the specific part of the web presence is.

For Stotz-Kontakt especially it might be beneficial to request full scale reporting on its web presence alone. This is possible through Webtrends. The advantage of having a tailored web statistical report would be providing better and more information. Through this report also the unique visitor and repeat visitor numbers could be monitored.

It might also be beneficial to continue monitoring the conversion rates (even though they do not seem to bring any further information that the views or visit number do not already provide – mainly since the conversion rates looked at were only tied to revenues and other data might better mirror the objective), especially the visits-to-revenue. It balances the fluctuation of temporary peaks and pits as well as binds the web presence performance to business performance. What would be also interesting is to find measures for monitoring the performance of the Product Guide, Industry Portals, Business OnLine, Premium Services, and Industrial IT efforts at ABB Group level.

A better addition to the measuring of web presence performance would be to evaluate it through the traditional measures. For example the value of web presence to customers can be measured through overall value measures rather than web presence specific measures.

Improvements to Data Leveraging

In regards to data leveraging at ABB, the already understood importance of trust should not be compromised. As already implied the possibilities for leveraging data without undermining trust do exist. What would make sense is to look into the option of leveraging data to gain insight on the internal performance.

One such solution might be looking into the leads and how they could be best converted into orders. This would mean monitoring the activity on the web presence – which visitors enter pages with product promotion material and are they placing an order later or not. This order can be placed through web presence but also through other channels. So the data leveraging would not result in more aggressive and proactive pushing of the product to the customer. Calling after such a visitor or sending other promotional material would just work against the notion of trust. Such activities might work in the B2C world but even then if the intention is to create and manage long-term customer relationships is this not possibly the best approach. This data though can be leveraged to create better understanding of the performance of web presence and gain internal efficiencies.

Also the full reporting of web measures on ABB Stotz-Kontakt web presence would bring advantages in data leveraging. The information gained (especially the unique visitor and repeat visitor figures) from this reporting would help manage the Stotz-Kontakt web presence.

7.2 Theoretical Applicability

Applicability of Building Process Model in Reality

In the empiric section the case of ABB illustrate that their web presence building process did not follow the step model of the theory section. Obviously this surfaces doubts on its applicability in reality. The model does clarify the issues that need to be dealt when establishing a web

presence (or developing it) but these steps might be parallel in reality. Some steps might also be jumped over or their order could change. What though has to be taken into consideration is the environment in which ABB built its web presence. The novelty of the technology most likely effected a pragmatic approach to web presence building. To verify though and derive conclusion of the applicability of the web presence building model in reality a wider case research base is required.

Even without questioning the applicability of the Web Presence Building Process model for currently starting companies or companies that have not entered into the web yet, questions to its applicability for companies that have got involved in web activity in the early days of the internet do exist. Especially these companies that built their web presence when the technology itself was developing (which it still continues to do just less radically) this pragmatic approach was not available and so not possible. In the environment of unsure future scenarios and lack of knowledge of the web and its applicability for commercial purposes no real guidelines or rules how to enter the web existed. This approach though could be compared to the exploration and adoption of any other business opportunity. What made the process even high profiled was the revolutionary view of the internet with its hype.

Now after the dust has settled down over internet can a more pragmatic approach to the web presence building process be adopted. This benefits the companies that are not yet engaged in web activities but also the companies that are. As web presence is not static but an ongoing, continuous development of it has to take place. In this development can the Building Process be helpful when the model is amplified. It provides clear steps of how to set objectives, turn them into strategy, make that strategy into a plan and a blueprint, and finally implement them. This approach makes the development efforts more systematic and especially better measurable through clear goal setting.

Usefulness of Stage Model

As the Stage Model can certainly help understand the previous steps of web presence in companies and in general, its applicability does not limit only to that. This time scope of the Stage Model is not its only applicability. It can help understand also the current web presence of a company.

For a company this is the real benefit of the Stage Model. It helps to evaluate the current web presence and indicate where there is still room for enhancing the efforts. Since no web presence is really at one stage can this help to evaluate the different parts of the web presence – on what stage are they in and could they be developed into another level. Also it helps to determine if any part of the web presence reaches the highest stage.

Usefulness and Applicability of Measures and Data Analysis

Many of the web presence performance measures are in reality hard to apply or do not bring the desired information. This means they are very theoretical and lack practical applicability. They are also too internet oriented forgetting the overall context in which the web presence lies in. Therefore it is important to include measures that evaluate the business performance of web presence. While visit numbers can tell the effectivity of an ad campaign which is aimed for creating more traffic to the company website, these numbers do not tell is the performance of the content of the web presence for example.

Many of the measures also do not work well in the B2B environment because of the differences of customer relationships and purchase behavior. Since in the B2B world personal relationships play a big part and relationships are built for the long term, web activities have only a supporting role. In these company-customer relationships it is hard to separate the effects and influence of web presence from all the other influences of company activity. This is why the measuring also

becomes more challenging. This also questions the effectivity to measure success by sales revenue and sales revenue related measures. Though that is the desired end-effect, does it not precisely measure the effects or performance of web presence.

Because of the high level of trust that needs to be established in the customer relationships of B2B leveraging the information that can be gathered through the web presence is not so easy. A customer might be aware of the possible ways of gathering information but trust that the company does not take advantage of this. This is why leveraging the data the visitor does not specifically give permission to use contradicts with the notion of trust. In so the benefits of the data leveraging are undermined when the customer feels this trust has been misused.

Instead of relying on web measures (statistics), maybe the conversion rates would be a more attractive alternative. Since they measure how strong web presence, in other words the web actions correlate with the benefits they give a better idea if the changes in actions bring results. The benefits can be an increase in orders or a decrease in the customer service contacts through other channels for example. In so the conversion rate can be adapted to measure any benefit correlation that through web presence is intended to achieve.

This flexibility to measure whatever benefit makes conversion rates particularly attractive. They can measure any correlation between the number of visits (or other desired static like downloads) and the benefit. An example is the correlation ratio of visits to sales. This measure has though its flaws. Since the sales are a result of many actions is this conversion rate not very accurate, especially if no separation to online and offline sales is made. Apart from sales conversion rate can also the effects web presence has on customer service be measured through the ration between e.g. visits on online customer service to the number of other customer service channel contacts. Do more visits on online

customer service incline the number of contacts to other customer service channels or does this number stay the same. This ratio tells better if the online customer service is really working and proving added value or if it just creates and extra step (a place where to find customer service contact information) for customer before direct contact to customer service.

What needs to be remembered in interpreting web presence performance is not to rely on one single measure. As the web presence is a multidimensional tool for achieving business objectives needs the measuring of its performance be multidimensional as well. The objective is the key for the performance measuring. The connection of objectives to measures has been without any attention in the studies so far. No research is done on what measure is to be used when reaching for specific objective.

What might hinder the adoption of conversion rates as new measures for web presence is that the hits and visits have already established their place in being the web presence measures. This means that even though quite strong criticism (of their applicability and ability to measure what is needed to be measured) they are widely used. No one measures their web presence without these measures. There may be additional measures but in any case hits and visits are included almost always. Since they are so used it might be difficult to overthrown them. Hopefully the conversion rates come to accompany them.

Another option worth considering is to measure web presence though traditional measures. This means that as the objectives fall in the lines of traditional business objectives, why would there be a need to measure them with web presence specific measures. To separate the effects of web presence will require more sophisticated measures than visits or hits.

As it is not wise to rely on one measure only maybe it is also not wise to rely on one measuring methodology. A combination of web presence specific measures, conversion rates, and traditional measures bring the most holistic view of web presence performance. This mix could better facilitate the evaluation of web presence.

To help in this complex task of web presence performance evaluation a more holistic model for it was created based on the theory section of the thesis. This model presented different levels for evaluation starting from the evaluation of the web presence stage to success characteristics, and finally to actual measures. Already the success characteristics were divided into two main categories - the customer oriented characteristics (quality content, interest, informativeness, actuality, personalization, trust, interactivity, usability, convenience, connectivity, and loyalty), and internal oriented characteristics (performance, responsiveness, and user information gathering). The measures likewise were divided into categories – web presence oriented measures (such as hits or visits), conversion rates (measures that combine other company internal date to the web oriented measures), general measures (traditional business performance measures or marketing performance measures), and other measures (time and cost savings).

This kind of multilayered model brought positive results in the empirical section of the thesis. It helped in the evaluation of ABB web presence with a wider scope – a more holistic view. The benefits of this model were obvious even though the evaluation was not full scale (due to limited access to information and resources of the thesis). Nevertheless it gave a more sturdy idea of the performance of ABB web presence. This in the light of criticism especially on web presence oriented measures brings an advantage to this model in comparison to other measures or measure combinations. It can also be tailored to the specific needs of the company. For example not all success

characteristics (e.g. entertainment) are necessary to apply when evaluating the performance of a B2B company.

8. CONCLUSIONS

The purpose of this thesis was to bring together the varied versions that exist of the theories on web presence building and web presence performance measuring. The objective was to find the best practices to build a successful web presence and to measure its performance. These issues were handled by looking first at the theories of web presence building by integrating the different models into a one building steps model. Then the second main issue of the thesis – the web presence performance measuring, was looked through the benefits that web presence enables and only after then the measures presented by previous studies.

As the web presence building theories were quite unified in their steps was the performance measuring a more fragmented field. This thesis therefore tried to bind the measures from various previous studies into a package easier to handle. This resulted in a so-called level model for web presence performance evaluation. The level model incorporates the evaluation of the web presence performance in the light of the stage or stages, success characteristics (customer oriented characteristics, and internal oriented characteristics), and the results from measures (web presence oriented, conversion rates, general, and other). This is a new way to categorizise the performance evaluation elements.

This thesis successfully together the results of various researches on the building process of web presence. It created a unified version integrating the findings of different studies. For web presence building process the step model of evaluation, strategy formulation, plan, blueprint, and implementation were found. In reality this model though does not work – at least in the case presented. The idea of its applicability as a tool for further development of the web presence was introduced but it is unclear based on this research. No definite conclusions can be made on this applicability.

This thesis emphasized more than previous studies the importance of a well conducted measuring of web presence performance for the further development of it. The web presence performance evaluation was divided into stage evaluation, success characteristics evaluation, and measures (web presence oriented measures: activity measures, behavioral measures; conversion rates; general measures and other measures: savings). It was also implied that aside these are measures of web presence other kind of information can be gathered through it to benefit the evaluation and development (other statistics).

This thesis brought new insights on the measures but leaves still plenty of room for further studies. This is mainly because the web presence measuring or performance evaluation is not a very mature area of research in the web presence field. It introduced the idea of dividing measures into levels – stage, characteristics, and measures. The characteristics were further divided into customer oriented and the internal oriented characteristics. The measures on the other hand were divided into web presence oriented measures, conversion rates, general measures, and other measures. In these measures this thesis was focused on the correlation (conversion rate) between web actions and orders/revenue and so leaving plenty of room for developing measures for evaluating the performance on other benefits that engaging in web activities brings.

The building of web presence is already a fairly established and widely researched area. The focus in this area of research might be sensible to shift to development of the web presence rather than keep concentrating on the building of it. This is a more applicable and current issue for many companies at the moment. This is because most of the existing companies have already created a web presence to themselves. Also at current there is a rather established model for web presence building process. What is more important to the current

research as well as the companies already engaged in web presence activity is how to develop their web presences. Therefore a clear need towards the managing web presence is emerging. In these development theories is also the measuring of the web presence performance included.

The web presence building model can be adaptable for developing web presence. It is a circular model that from implementation through monitoring leads to a new set of objectives and visions to strategy. What still needs a lot more investigation is the applicability of the measures. Developing better measures that really focus on web presence performance and not unrelated statistics would bring great benefits. This means binding measures to objectives more clearly. This connection of objective to measure has been left with very little attention. Also more standardized (cross industry accepted measures for web presence performance) measures and the adaptation of these measures would help the evaluation of performance compared to competitors. This kind of measures and comparison is already used in financial performance and its applicability to web presence could be beneficial. The willingness of companies to publish this kind of information is though questionable.

This thesis is conducted in the B2B environment. Because of this, it is applicable to B2C environment with caution if at all. It is also a case study. So the results of the empirical section cannot be said to apply in a wider context without reservations. The period of examination of the correlation rates is also very short. This is why no definite or absolute interpretation can be done based on it. Do to the lack of resources some important evaluation were also not possible (customer oriented success characteristics, general measures, and other measures). This thesis only provides indicators for future studies. Further research on a longer time period on conversion rates, and the model of web presence performance analysis it introduced need to be conducted.

What could be interesting for further research are the relations between KM (data leveraging) and web presence as well as Value Creation and web presence. These issues were not discussed in this thesis because of the limited extent and the magnitude of both KM and Value Creation concepts. Though some research is already available is there still room for new investigation. This thesis also introduced some ideas that need further investigation. These ideas are the applicability of the step model of web presence building process to aid in the development of web presence. Also the applicability of the stage model to evaluation of the web presence needs more extensive research. To be convinced of if they can be extended to these areas further studies on them need to be conducted.

The area that lacks desperately research is the web presence performance measuring. There are many companies already emerging with products that are miraculously supposed to solve this measuring problem. Companies fall in the false sense of problem-solved when acquiring such software. This is not the truth. There is a lack of measures that accurately measure the benefits of web presence. There are various measures in the study literature though. It is not sensible to just measure web statistics and their deviations. It is more important to develop measures that combine web statistics with company internal statistics. These measures need also be studied and their applicability researched. The presented correlation measures can offer a solution for better web presence performance measuring. They also need further study for validation. Also the venture into the applicability of traditional measures on web presence performance could bring benefits. As a solution this thesis provided a model for web presence performance evaluation. To validate this more research needs to be done.

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APPENDIX

Template for the interviews

Initial efforts on web activities:

1. Why were web activities engaged and when?
2. How did the process move forward?
3. What were the goals?
4. How were the goals achieved?
5. What are the views on the process?
6. What could have been done different/better?

Development of web activities:

7. How have the web activities/web presence developed?
8. Why there has been development?
9. How have the goals changed?

Current activities:

10. On what level are the web activities currently?
11. What web activities are there?
12. What are the current goals?
13. What are the strengths of the current web presence?
14. What are the weaknesses of the current web presence?

Measuring of web activities:

15. What could be improved?
16. How are web activities/web presence measured?
17. Why the chosen metrics?
18. How is the information gathered being used?