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# Sustainable Evolution of Business Models: Cases from Scandinavian Internet Portal Market

Jan Damsgaard
*Copenhagen Business School*, damsgaard@cbs.dk

Aleksi Horsti
*Helskinki School of Economics*, aleksi.horsti@iippii.com

Olle Nilsson
*Mid Sweden University College*, olle.nilsson@mh.se

# SUSTAINABLE EVOLUTION OF BUSINESS MODELS: CASES FROM SCANDINAVIAN INTERNET PORTAL MARKET

Damsgaard, Jan, Copenhagen Business School, Howitzvej 60, DK-2000 Frederiksberg, Denmark, damsgaard@cbs.dk

Horsti, Aleksi, Helsinki School of Economics, P.O.Box 1210, 00101 Helsinki, Finland, aleksi.horsti@jippii.com

Nilsson, Olle, Mid Sweden University, 85170 Sundsvall, Sweden, olle.nilsson@mh.se

## Abstract

*Portals exist for a large number of topics and they have become quite common on the Internet. So far, researchers have not extensively studied the evolution of portals and only a few portal business models have been reported in the literature. We wonder if Internet portals are following the same evolution path, and what kinds of similarities and differences can be observed. The theoretical references, we drew on for the design of a field study, were derived from a number of theories considering portals, online communities, and network economics. We chose to research six portals, comprising Danish, Finnish and Swedish portals, of which three represent healthcare and three mobile services. We learned that the portals are quite similar in their scope of operation. Furthermore, we noticed that there is a difference between portals hosted by large organizations and portals that existing independently. All six portals are national in their geographical sphere of attention. This stresses that the local language capabilities are important when launching a portal. Finally, existing theories seem to provide an adequate theoretical vehicle for explaining the evolution of these portals. The practical contribution of this paper lays in the set of guidelines that can be applied by portal managers to identify their focus areas. It also provides some guidance about in which direction Internet portals currently develop.*

*Keywords: Internet portal, Portal management model, Business model, Lifecycle, Field study, Denmark, Finland, Sweden.*

# 1 INTRODUCTION

Portals have become quite common on the Internet. Historically, portals started as navigation points on the growing and chaotic Internet, but have evolved into ending points – closed self-referring systems or walled gardens where users start but also stay. Overoptimistic entrepreneurs launched many portals in the late 1990's. However, the end of the dot com era also meant an abrupt end to many portals. Today we have a significantly smaller but economically healthier population of portals.

Portals exist for a large number of topics. One of the most well known is WebMD (www.webmd.com) that provides a universe of information and links about general healthcare issues. The Internet contains a plenitude of other portals on topics such as iVillage "the women's network" (www.ivillage.com). A growing number of portals are dedicated significantly for smaller language areas such as Denmark, Finland and Sweden. Local-language portals seem to thrive alongside the international ones. Good examples are the Danish women's portal in Danish language Ostrogen (www.oestrogen.dk) that largely corresponds to iVillage and a healthcare portal Netdoktor (www.netdoktor.dk) that largely corresponds to WebMD. Similarly, in Sweden and Finland there are women's and healthcare portals in respective local languages. So far, researchers have not extensively studied portal management or portal business models, and only a few portal business models have been reported in the literature and none of them are empirically tested. We wonder if portals witness similar evolution patterns? Are based on similar business models? And what kind of similarities and differences can be observed?

In this paper we seek to answer the following research questions:

- How to understand the business models and current issues of Internet portals?
- What differences and similarities exist between the evolution trajectories of similar portals?

This paper is outlined as follows. In the next section we describe portals and dimensions around which we seek to understand the evolution of Internet portals. Thereafter, we outline a field study methodology for studying the evolution of portals. In section four we describe the evolution of six Scandinavian portals. In section five we condense our findings and discuss the differences and similarities among the six portals, and finally we make some conclusions and suggest promising areas for further research.

# 2 PORTALS AND THEIR MANAGEMENT

A portal is commonly defined as a website that offers a set of services that helps users navigate the Internet. Most common services include: 1) search services, 2) content, 3) community building features, 4) commerce offerings and 5) personal productivity applications (Eisenmann and Pothen 2000). Especially services, such as a virtual community as an Internet phenomenon, have received a lot of attention (Hagel and Armstrong 1997; Rheingold 1993; Whittaker, Isaacs and O'Day 1997). A horizontal and vertical span and a geographical sphere of attention characterize a portal (Damsgaard 2002). First, the horizontal dimension refers to how wide the service/product offering and the field of operation of a portal is. Some portals have a narrow horizontal scope (e.g. focusing entirely on a specific health problem), while others have a broader scope (e.g. health issues in general). Second, the vertical dimension describes the variation in the clientele or members attracted by the portal. It may have a narrow vertical scope (e.g. targeted only at young football fans) or it may have a more general scope (e.g. targeted to all aged and types of sports fans). Third, the geographical dimension refers to the geographical range of the portal. Some portals operate only within a certain part of a city, some on a national scale while others seek to unite across nations and continents. Success can be defined in many ways, but here we choose to state that success is to be the dominant portal in a self-declared scope of operations (horizontal, vertical and geographical scope) and to satisfy the portal owners. Finally, we want to add the used channel as a fourth dimension in describing the characteristics of a portal. At the moment, the most common way to interact with the portal is PC based Internet

communication but, in the same time, mobile as a channel is growing due to the past development of mobile devices. In addition, mobile is used as a way to charge consumers. These four dimensions are described in Table 1.

| | | | |
|---|---|---|---|
| **Horizontal focus** | Narrow | Broad | |
| **Vertical target group** | Narrow | Broad | |
| **Geographical coverage** | Local | International | |
| **Channel used** | PC based (Internet) | Mobile | PDA |

*Table 1. Portal framework.*

## 2.1 Portal lifecycle and business model

In most of the business model discussions, portals are seen as special instance of a generic e-business model (Applegate 2001; Eisenmann and Pothen 2000; Mahadevan 2000). Eisenmann and Pothen (2000) focus on the portal business models, which are categorized according to each step of a portal's maturity, or better, a lifecycle model. The steps are: 1) Acquiring new users; 2) Turning new users into repeat visitors; and 3) Monetizing user traffic. Their ideas are similar to the portal management model (PMM) presented by Damsgaard (2002). Eisenmann's and Pothen's (2000) three-step division is also quite near to Applegate's (2001) definition of evolving e-business models, which includes four mechanisms: 1) Enhance by adding new features or improving existing ones; 2) Expand by adding new offerings or entering new markets with the same offering; 3) Extend by adding new business models or new businesses; and 4) Exit the business. In terms of further research, portal business models are interesting and important in understanding and enabling more profitable businesses on the Internet.

In this paper, we concentrate on the portal business models by using the idea of a life cycle model (see Moore 1999), which is conceptualised by Damsgaard (2002). In that paper, the author calls also for an empirical testing of the model. The PMM represents a classical life cycle model, which is especially tailored to Internet portals. The model is depicted in Figure 1. The PMM idealizes a successful portal implementation process from genesis to domination. The model consists of four stages, of which each focuses on different aspects of the portal building efforts (see, for example, Besen and Farrell 1994). The model posits that each stage poses a key challenge to be overcome in order to proceed to the next – more advanced – stage. If a challenge is not resolved properly, the portal cannot evolve, but will stagnate. The basic idea is that the portal must first attract users individually through the merit of portal content only. If users visit the portal only once, they have no value beyond that visit. The idea is to get users to return and start a relationship with the visitor. Often the best strategy is to imitate other more established portals. In phase two, the challenge is to grow up a community from a group of users that often comes to the portal but who do not necessarily interact with one another. The key challenge here is to attract a critical mass of users. Often this is possible only by merger with other portals or acquisition. In the third phase, it is time to provide a unique service that "locks" the users to the portal. In the final phase, it is imperative to add new service innovations to the portal so that users do not have a reason to abandon the portal.

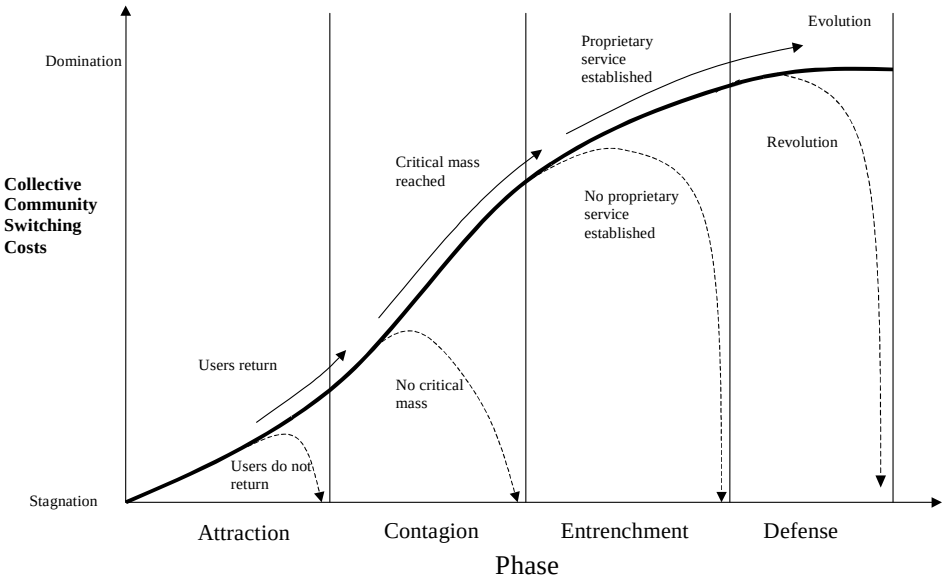


*Figure 1. The portal management model (PMM).*

## 3 FIELD STUDY

### 3.1 Field study design

The theoretical references, we drew on for the construction of our data collection instrument, were a number of theories that consider portals (Eisenmann and Pothen 2000), online communities (Hagel and Armstrong 1997; Rheingold 1993; Whittaker, Isaacs and O'Day 1997), lock-in of users (David 1985) and network technologies (Brynjolfsson and Kahin 2000; Christensen 1997; Shapiro and Varian 1999a, 1999b). For portal lifecycle and implementation strategies, we chose PMM (Damsgaard 2002). The relationships with users were examined according network economics as described in Shapiro and Varian (1999a). Moreover, the community building effort was examined using Kim (2000). Based on the theoretical concepts from this literature, we designed an interview guide to capture the portal evolution process. All questions were open-ended to allow for a rich and interactive discussion of the topics.

A multiple interpretive case study design forms the basis for the findings of this paper (Walsham 1995). The aim was to study similar Internet portals in Denmark, Finland and Sweden. The participating portals were chosen around two topics because our intent was not only to study the implementation strategy, but also the evolution proximity of similar portals. We selected three portals on healthcare and three portals on mobile services, two from Denmark, Finland and Sweden, altogether six portals. The reason for choosing healthcare portal was the relatively long time they have existed. The rationale behind choosing mobile service portals, in turn, was their actuality. In addition, mobile service portals have had the opportunity to learn from past mistakes. Hence, mobile portals and healthcare portals represent interestingly different backgrounds, industries and characteristics of portals for the empirical case study. The data gathering was conducted in February of 2003 in all three countries with informal follow-up questions to some of the portals. Table 2 outlines the interview specifications.

| Organization | | Line of business | Country | Interviews dates | Interviewee |
|---|---|---|---|---|---|
| 1 | www.netdoktor.dk | Healthcare | Denmark | February 2003 | CEO |
| 2 | www.mobilstationen.dk | Mobile services | Denmark | February 2003 | Portal manager |
| 3 | www.verkkoklinikka.fi | Healthcare | Finland | February 2003 | Content Director |
| 4 | www.jippii.fi | Mobile service | Finland | February 2003 | Vice president |
| 5 | www.netdoktor.se | Healthcare | Sweden | February 2003 | CEO |
| 6 | www.telia.se/mydof | Mobile services | Sweden | February 2003 | Portal manager |

*Table 2. The organizations, dates, and the interviewees in each organization.*

### 3.2 Data collection and analysis

All interviews were tape-recorded. Subsequently, a case was compiled for each portal based on handwritten notes made during the interview and the tape recording. The case was compiled based on our interview guide and not chronologically from the interview itself. This was necessary as the interviewees often backtracked and clarified issues that had been covered earlier in the interview, or the interviewee's answer to a question prompted the interviewers to ask questions outside of the interview guide, or to encourage the interviewee to elaborate answers. Each case description was the foundation of the final case descriptions used here and they were shared with the individual portals for feedback and validation. Minor corrections were needed in a few cases. In addition, to ensure the quality of the interviews, some interviewees were contacted afterwards by phone calls and emails in order to get further or missed information. The cross-case comparisons and extraction of overall results were based on the case write-ups.

## 4 ANALYSIS

In the following we analyze the six portals. First we concentrate on the three health portals and then on the three mobile service portals. Each of the cases starts with a general description of the portal and in the continuation we analyze it according to our theoretical constructions. Table 3 condenses the analysis.

### 4.1 Netdoktor.dk – a Danish health portal

#### *4.1.1 Description*

A doctor, a journalist, a 17 years old techie and a doctor's secretary founded Netdoktor (www.netdoktor.dk) in the summer of 1998. Netdoktor is privately owned and free of any interest from medical companies or institutions. Netdoktor aims at making a business out of providing clear, precise and comprehensible knowledge about healthcare in order to break down the barrier between a doctor and a patient. It is worth noticing that Netdoktor, besides Denmark, is active in Austria, Germany, Spain, Sweden (see section 4.2), and the United Kingdom. However, this section focuses entirely on the Danish portal.

Netdoktor was a first mover in Denmark and it was largely unchallenged until 2001 where the Union of Pharmacies launched a similar portal Sundhed (www.sundhed.dk). Sundhed is not-for-profit and it is backed by a number of health related associations and semi-public institutions. Nowadays, Netdoktor and Sundhed dominate the general healthcare portal market.

Netdoktor is the marginal larger portal with 25.000 members, and it has 275.000 unique users and 10 million page views per month (January 2003). In average a user spends 12 minutes at Netdoktor.

There are more than 80 doctors and professionals engaged by the portal. At the peak of the dot com era, the number of employees was close to 100. At the moment, Netdoktor employs 30 people. Annual turnover of the portal is about €6.2 million. The revenue is generated through three types of activities; sponsoring of portal content, syndication where Netdoktor pushes content to others' portals and finally the usual banner ads.

Normal visitors are 25 – 45 years old females with family, representing middle-income segment. Netdoktor has successfully launched three communities; one for depression, one baby club, and one for stopping to smoke. The baby club, for example, has almost 50% of the pregnant women in Denmark as members.

#### *4.1.2 Analysis*

Netdoktor represents the characteristics of wide horizontal, narrow vertical, narrow geographical scope and channel used is fixed. The portal is horizontally wide because it offers health services in general. Vertically the portal is narrow, since most of its visitors and members are female between the ages of 25 – 45 years. Netdoktor operates only in Danish so in the geographical dimension, the portal business is local, i.e. narrow scope. The most common way to interact is through fixed connections, i.e. Internet.

When Netdoktor was first launched, it focused mainly on attracting individual customers by providing attractive content as suggested in Damsgaard (2002). The strategy was basically a Get-Big-Fast strategy (Eisenmann and Pothen 2000). As the contester Sundhed was launched, soon a struggle over market shares emerged gaining a critical mass in specific sickness areas and in health topics. One might suggest a merger between two portals, both seeking the dominant position in the same segment. However, in this particular case such development is unlikely as the underlying philosophy and business model behind the two portals are opposing. With the launch of the three forums, the focus has been expanded to considering also communities. The main reason for lock-in comes from providing superior content, branding and increasingly from the communities, but lock-in as a concept is not used systematically in the planning and execution of new activities.

### 4.2 Netdoktor.se – a Swedish health portal

#### *4.2.1 Description*

The Swedish portal Netdoktor.se originates from Denmark. Netdoktor.se is one part of netdoktor.com operating in six countries. In Sweden, the portal has two full time employees, 10 part-time ones and several experts such as doctors. Netdoktor.se's budget for 2003 amounts to € 500.000. The competitive strength of Netdoktor.se is the unique and broad content together with different interaction possibilities that the portal offers. The portal consist of three revenues sources: a) ads from the pharmaceutical industry and others who are interested in healthcare issues; b) content and service provider in healthcare related issues; and c) advanced technology solutions.

Netdoktor.se is the leading healthcare portal in Sweden with 10.000 registered members, 11.000 newsletter subscribers, 225.000 unique users, and 6 million page views and 2.000 questions sent to doctors per month (January 2003). Typical user is a female between 25 – 45 years old, and an average user visits the portal two times a month. The portal can be reached only via the web, and the most common way to interact is email. The aim of Netdoktor.se is to build stronger relationships with its users in terms of newsletters subscriptions and registrations in communities. So the portal includes 200 discussion groups and two communities where the registration is not required. Currently, Netdoktor.se has no specific rules or etiquette beside a normal, decent behaviour.

Also other actors are trying to attract the Swedish consumers. Examples of these portals are Infomedica.se, a public service portal with about 110.000 visitors per month (2002) that is owned by

Apoteksbolaget AB and Sveriges Landsting, and Medicallink.se, a commercial portal with 73.000 visitors per month (2003) that is owned by Medical Link 3W AB. Furthermore, like in Finland, telecom operators and media companies offer healthcare related content in their portals. In most of the cases, healthcare portals are based on cooperation with the content providers of health information.

#### *4.2.2 Analysis*

A growing interest among the Swede's for health and fitness attracts telecom and media companies to provide a healthcare related content at their portals. Beside the commercial actors, also public healthcare organisations and hospitals have shown an interest to provide medical information and services. Today, these public service portals buy a lot of content and services from external providers. For instance, Netdoktor.se delivers content to Infomedica.se, and probably this market will grow. Netdoktor.se plans not only to attract visitors to use the portal, but also to strengthen the position in the content provider market.

Netdoktor.se represents the characteristics of a wide horizontal, narrow vertical, narrow geographical scope and channel used is fixed. It is horizontally wide because it offers health services in general. Today the portal is vertically narrow because most of its visitors and members are female between the ages of 25 – 45 years, but the intention is to become vertically wide. The portal operates only in Sweden and its content is only compiled for a Swedish speaking audience, which makes the geographical dimension local. The most common way to interact is through fixed connections, i.e. Internet.

First, when the portal was launched, it focused mainly on attracting individual customers by providing content as Damsgaard (2002) suggested, and the strategy was based on a Get-Big-Fast strategy as characterized by Eisenmann and Pothen (2000). There were other actors at the scene, and it became a fight for market shares in order to gain a critical mass of users. One strategy in this situation would be a merger or acquisition, but in this case there were no other actors with a similar underlying philosophy and business model. At the moment, the portal is building and strengthening its online communities. The lock-in is to be reached by the unique and superior content, branding, and especially with communities.

### 4.3 Verkkoklinikka – a Finnish health portal

#### *4.3.1 Description*

A few doctors founded Coronaria Oy in 1988. Coronaria's is the leading healthcare portal provider in Finland at the moment. Coronaria runs two consumer healthcare portals: Poliklinikka.net (see www.poliklinikka.net) and Verkkoklinikka (see www.verkkoklinikka.fi). Coronaria founded Poliklinikka.net portal in 2001, and right after that Coronaria expanded its healthcare portal business by buying Verkkoklinikka portal that had been operating since 1996 by Medixine Oy. In this study we focus on Coronaria's Verkkoklinikka portal because it is more sophisticated in terms of services, and it is the biggest healthcare portal in Finland in the number of subscribers and visitors. Also telecom operators (such as tohtori.fi operated by Sonera Plaza) and media companies (such as MTV 3) have entered the market by offering healthcare related content in their portals. Thus, the market of the healthcare portals in Finland is a good example of the consolidation of different industries. But still Coronaria sees as its competitive strengths in the business employing several doctors who bring relevant capabilities and knowledge to the healthcare portal business.

Thus, Verkkoklinikka is the leader of the healthcare portal market in Finland. Annual turnover of the portal is about €160.000. Over 90% of its revenues are generated through advertisements of pharmacies, medicines manufacturers, doctor centres, and travel agencies. Verkkoklinikka is financially independent with a positive cash flow. In the near future Verkkoklinikka intends to implement a registration fee for its members, and offer some new features not yet offered by other

Finnish healthcare portals. Mobile services used through WAP and MMS will become new sources of revenue.

Verkkoklinikka has 100.000 users per month and 25.000 active members. Furthermore, there are more than 60 doctors as advisors and professionals supporting and enabling the services offered by the portal. The most frequent visitors on the portal are females (25-45 years old) seeking information on healthcare topics for someone else apart from themselves. In addition, one special characteristic of the portals in the healthcare business is the anonymity that partly, according to the portal, restricts the foundation of real communities. There are, however, some exceptions, one discussion group has built an own web site and they have also arranged offline appointments together. Every community has leaders who are active in the discussions. Sometimes advisors, generally doctors, have to redirect the discussion and move it back on the right rails e.g. when somebody gives wrong information or discussion is in a deadlock. Emotions and sympathies are common in Verkkoklinikka portal; community members want to support each other in their problems, and they are eager to share happiness.

#### *4.3.2 Analysis*

At the moment, the situation in the Finnish healthcare portal market is quite stable after Coronaria bought Verkkoklinikka portal, although, there are many other portals that offer healthcare related content. Reason for this is that there are no other independent healthcare portals in Finland that take a full financial responsibility of their business. Nevertheless, Coronaria sees threats in the market that can lead to tightened competition, for example, if municipalities or hospitals construct a similar online service.

Verkkoklinikka represents the characteristics of a wide horizontal, narrow vertical, narrow geographical scope and channel used is fixed. The portal is horizontally wide, since it offers health services in general. Vertically the portal is narrow because about 88% its visitors and members are female and 73% of all visitors are 20–44 years old. Verkkoklinikka operates only in Finland, so in the geographical dimension, the portal business is local, i.e. narrow scope. The most common way to interact is through fixed connections, i.e. Internet.

Coronaria's Verkkoklinikka portal acquisition has enabled reaching a critical mass in the healthcare portal market that is necessary to become successful. The portal has created very attractive services and, therefore, visitors and members are moderately locked-in to Verkkoklinikka.

### 4.4 Jippii – a Finnish based mobile service portal

#### *4.4.1 Description*

Jippii Portal (see www.jippii.fi) operates as an independent business unit within the Jippii Group, which is the fourth biggest mobile operator in Finland. Jippii Portal's annual turnover in 2002 was €18,5 million. About 94% of its turnover results from SMS micro payments including logos, ring tones, nicknames (i.e. user registrations of its active members by SMS), and so forth. In addition, 6% of its turnover is generated through banner advertisements. All revenues are gathered through mobile touch point (i.e. SMS), but main transactions and volumes are situated on the web, such as communication in communities and discussion groups, news information, and gaming.

Jippii Portal began its operations in January 1999 employing only one worker, the founder. At its best, the number of its employees had risen up to 48 (including also countries other than Finland) during the sharpest peak of the Internet hype. At the moment, Jippii employs 14 people. It has personnel both in Finland and abroad. In total, Jippii Portal has 760.000 active webmail users per month and 85.000 of those have acquired themselves a nickname, for which they have to pay. On average, a normal visitor spends about 24 minutes on Jippii's site. The most common reason for visits in Jippii Portal is the use

of the webmail. As high percentage as 88% of all Jippii Portal's visitors came to the Jippii Portal's sites on recommendation by a friend, who suggested it as worthwhile. Jippii Portal is the number one portal in Finland counted by the number of web page downloads.

In the Jippii Portal the tightest bonds between community members are on the micro level. For example, one of the pool communities, named 8-liga, has a very tight network between its community members. They are connected online daily through chat, SMS, email, and the web. Furthermore, they have also several offline appointments each year. The 8-liga has also a leader that has successfully created own rules and standardized behaviour for his community. The 8-liga is a good example of how the community is transferred from the online world to the offline world. Generally, discussion and communication in the Jippii Portal is proper and decent because there are several sheriffs that are monitoring the discussions. Sheriffs are normal and active members that are authorized by Jippii Portal to expel someone from the portal in case of unacceptable behaviour.

#### *4.4.2 Analysis*

The portal market in Finland is stabilized. The biggest portals in Finland consist mainly of the telecom operators, media companies, and Microsoft. Normally Finnish companies operate in these main top five portals, and only Microsoft represents an international portal in the group. In this group, Jippii Portal is a special case because it attracts mainly teenagers and young adults when other portals are focused on adults or both teenagers and adults. Jippii Portal is characterized as an entertainment portal compared with other portals because its main focus in the offering is on web-based games and content services that are popular especially among their young customer segment.

Jippii Portal represents the characteristics of a wide horizontal, narrow vertical, local geographical scope and channel used is the combination of fixed and mobile. Horizontal dimension is wide because portal's service offering is large including e.g. webmail, chat, discussion groups, games, news service, and many other services. Due to the vertical dimension Jippii Portal is characterized as having a narrow scope because major proportion (85%) of its users and members of the portal are below 25 years old and as many as 80% of them are students. Furthermore, more than 90% out of Finnish adolescent web users are reachable at least once a month. Among visitors the portal is narrowly selected. In geographical dimensions Jippii Portal is clearly characterized as a local portal because it operates in Finnish language. The international Jippii business has operations in 21 countries including many European countries and the US. The most common ways to interact with the portal are fixed i.e. Internet and mobile.

Jippii Portal's maturity and development as a portal has been very independent right from the beginning until today's domination and success in the portal market. In Jippii Portal's history, there have not been any mergers, acquisitions or cooperation with other portals. Hence, the growth of Jippii Portal can be best described by organic growth. However, Jippii Portal has benchmarked quite a lot of the "big portals" during the growth phase, such as Yahoo. This way, it has enabled itself to learn from portal business in general. It can be stated that Jippii Portal has reached its critical mass in the selected portal market segment described earlier and it has now established gaming forums, chat rooms and discussion groups. Thus, the current state of the Jippii Portal represents the mature phase with a moderate capability to lock-in its members and visitors to its portal with its attractive communities.

### 4.5 Telia Mobile/MyDoF – a Swedish mobile service portal

#### *4.5.1 Description*

Telia Mobile – the leading mobile phone operator in Sweden – launched the portal, My Department of the Future, i.e. MyDoF (see mydof.teliamobile.se) in October 1999. The aim was to attract the early adopters and the heavy users of mobile communication. In the beginning, it was only a WAP portal

but now it could be used by all kinds of digital technology. The portal employs 6 persons at the moment.

The portal is a market place for services and the purpose is to get people to use their mobile phones for other things than just talking. It is free for all Telia Mobile's customers to register as a user, but the use of the services is charged. The typical user is a heavy user in the age 23 to 35 years old. The content on the portal is produced both by users themselves and by content providers on a revenue share basis. The uniqueness of the portal is the mail adapter, to which it is possible to connect 10 different mail accounts. There are no intentions to create communities on the portal. The revenues are generated from the mobile use. There are no advertisements on Telia branded sites. MyDoF should not be seen as a product, rather a channel through which other products are marketed.

#### *4.5.2 Analysis*

MyDoF represents the characteristics of a wide horizontal, narrow vertical, narrow geographical scope and channel used is the combination of fixed and mobile. The wide horizontal scope is indicated by the broad offer of services in the mobile phone area. The vertical scope is narrow because of the user group that consists of people aged 35 and below. While the portal is operating only in Sweden and its content is only compiled for a Swedish speaking audience, is the geographical scope narrow. The most common ways to interact with the portal are fixed and mobile.

When MyDoF was launched it focused on attracting individual customers by providing content, and the strategy was basically an As-Income-Will-Allow strategy. The next strategy is building community but no such activity was reported. Lock-in factors could be found in the unique services as the mail adapter and in the loyalty program that give the user points which could be redeemed to products or services.

### 4.6 Mobilstationen – a Danish mobile service portal

#### *4.6.1 Description*

Mobilstationen (see www.mobilstationen.dk) was launched in 2000, and it operates as an integrated business unit within Sonofon that is a Danish telco incorporated in 1991. Today Sonofon is the second largest telco in Denmark with more than a million mobile subscribers and turnover of more than € 400 million. Sonofon is owned by Norwegian Telenor with a 54 % holding, and BellSouth holds the remaining 46 %.

Mobilstationen was launched in 2000 to support Sonofon customers in using their mobile phone in a wider application area than just interpersonal voice communication. There are only three people employed directly with Mobilstationen while staff from the whole Sonofon organization can be chartered on an ad hoc basis.

Mobilstationen is not trying to build a separate relationship, but it complements and adds to the Sonofon relationship with a given customer. Some of the most popular services are downloads of logos and ring tones that relate to successful TV commercials. Everybody can use the basic services but Mobilstationen has a special section for members. Mobilstationen does not organize any communities around itself.

#### *4.6.2 Analysis*

Mobilstationen represents the characteristics of a wide horizontal, narrow vertical, narrow geographical scope and channel used is the combination of fixed and mobile. Horizontal dimension is wide because portal's service offering is large. The visitors of the portal are typically Sonofon's younger customers (below 35 years old) therefore the portal is vertically narrow. In geographical

dimensions Mobilstationen is characterized as a portal in Danish language and therefore local. The most common ways to interact with the portal are fixed and mobile.

Development of Mobilstationen development as a portal has not been commercially driven, because it is an inseparable part of Sonofon. There have not been major mergers, acquisitions or cooperation with other portals, and most of the content comes from external providers. Growth of Mobilstationen may be best described as a slow growth one. Mobilstationen does not posses a monopoly in any areas, nor has it communities. It has, however, the role of a support function for Sonofon, which main objective is to sell voice communication. Thus, the current state of Mobilstationen has a low capability to lock its members and visitors to its portal. Mobilstationen is not among the top 50 most popular sites in Denmark.

## 5 DISCUSSION AND CONCLUSION

All six portals are identical when it comes to scope. They are horizontally wide focusing on a wide array of topics. On the other hand, the horizontal scope of the portals is constantly challenged by rival portals seeking to offer a more focused service. This phenomenon is very much in line with the traditional service differentiation. This will happen when the market for portals matures, and the technology to operate portals becomes widely available. At the same time, the fight over suitable topics will intensify.

Vertically considered, all portals seem to attract quite a narrow customer segment. The health portals seem to attract mainly women between the ages of 25 and 45, whereas the mobile service portals attract mainly people below 35 years of age of both sexes.

In the geographical dimension, the local language seems to be a deciding character for delimiting the geographical scope. Let us take an example of choice of health portal: since an average person does not know the medical names in foreign languages, people tend to choose the local language portal. This was confirmed as none of the three health care portals reported any serious international competition. The choice of the local mobile service portal can be explained by the locality of mobile operators' infrastructure. It cannot be reached from the outside. We believe that the local language is paramount, and this is a general observation that can be applied across the entire spectrum of portals.

In the near future, the portals are maturing also due to the channel dimension. The biggest growth is expected in the combination of fixed and mobile channels. In other words, the idea of multi-channel environment is offering new challenges for the portal market. The Jippii Portal gives evidences that fixed channel is used as a free of charge channel to attract critical mass to the portal, and mobile channel is a way to get revenues from the portal products itself. In the case of pure fixed channel, portals generate their revenues mainly from advertisements.

Large host organizations embed both Telia Mobile and Mobilstationen, and therefore they have a primary goal of providing support and enhancing relationship with the host's existing customers. They have both been protected from market forces. Furthermore, they are both quite young when compared with their more independent Finnish brother – Jippii – operating as an independent business unit. However, compared with the health portals, the mobile services portals are generally less matured.

The healthcare portal market has witnessed a large shake out after the dot com era. In Finland this has led to mergers and in Denmark the company has sold off its Swedish healthcare portal-branch. All three healthcare portals have cut down substantially on staff and operating costs since the mid 2000. The fact that they are still in business is a strong claim to the current soundness of their business model. Banner ads as a means of income is not the dominant stream of income. Mostly, the portals generate income from sponsorships. In the Swedish market, convergence only occurs in one portal, whereas in Finland and in Denmark, a stand off between two rivals exists. One could expect mergers, but at least in Denmark the institutional context makes a merger very unlikely. In Finland, the main

healthcare portal is already a result of a merger, and no signs of further consolidation are foreseen in the near future.

Communities are becoming increasingly important for the healthcare portals as a means of drawing the users closer to the portal and to increase user loyalty. Management of the communities is still in its infancy both conceptually and operationally. This does not mean that community roles are not evolving, or that community leaders are not emerging. In fact, it means that the portals are not in control of their communities and here is where the portals should focus next.

PMM depicts all the six portals and characterizes their business. They all have initially concentrated on attracting customers on an individual basis. Later, when the portal has matured the focus has been extended to include community-building efforts. Only a few of the portals are now ready to consider, how to establish a proprietary service to link the users and the communities firmly to the portal. We hope to revisit the portals after twelve months to learn about their status at that time.

Further research is required to establish a firm understanding of portals and their management. Scandinavian countries examined are apart from language quite similar both in regard to culture, economy and population density. To further explore and validate various models and theories of Internet portal it is promising research avenue to extend the data material to different socio-economic setting.

| Healthcare portal | Netdoktor.dk | Netdoktor.se | Verkkoklinikka |
|---|---|---|---|
| Country | Denmark | Sweden | Finland |
| Date when launched | 1998 | 1998 | 2001 |
| Number of fulltime employees | 30 | 2+ | 3 |
| Horizontal, vertical, geographical scope and channel used | Hor: Wide<br>Ver: Narrow<br>Geo: Local<br>Cha: Fixed | Hor: Wide<br>Ver: Narrow<br>Geo: Local<br>Cha: Fixed | Hor: Wide<br>Ver: Narrow<br>Geo: Local<br>Cha: Fixed |
| Type of services | Health related information | Health related information | Health related information |
| Usage | Number 1 in healthcare portals | Number 1 in healthcare portals | Number 1 in healthcare portals |
| Community | 3 communities | 2 communities, 200 discussion groups | 61discussion groups |
| Competitors | Duopoly in the market | Almost a monopoly | Duopoly in the market. |
| PMM phase | Phase II | Phase II | Phase II |

| Mobile portal | Jippii | Telia Mobile | Mobilstationen |
|---|---|---|---|
| Country | Finland | Sweden | Denmark |
| Date when launched | 1999 | 1999 | 2000 |
| Number of fulltime employees | 14 | 6 | 3 |
| Horizontal, vertical and geographical scope | Hor: Wide<br>Ver: Narrow<br>Geo: Local<br>Cha: Combination | Hor: Wide<br>Ver: Narrow<br>Geo: Local<br>Cha: Combination | Hor: Wide<br>Ver: Narrow<br>Geo: Local<br>Cha: Combination |
| Type of services | Nicknames, ring tones, logos, games, etc. | Mailadapter, ring tones, logos, games, MMS, etc | Ring tones, logos, games, and MMS |
| Usage | Third most visited site in Finland | One of the leaders | Not among top 50 in Denmark |
| Community | 20 gaming groups, 13 chat rooms and 70 discussion groups | No community | No community |
| Competitors | About 4 strong competitors. | None, since it mainly provides services to | None, since it mainly provides services to |

| | | | |
|---|---|---|---|
| | | existing customers | existing customers |
| PMM phase | Phase II | Phase I | Phase I |

*Table 3. Overview of the six portals.*

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