Telmore

Disruption in the Danish Mobile Market (A)

Case study
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This case was written by Jamie Anderson, ESMT European School of Management and Technology. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The case was made possible by the co-operation of Telmore and TDC.

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ESMT Case Study

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Introduction

At the end of 2003 one of the fastest growing mobile virtual network operator (MVNO) in the world was Telmore, a Danish service provider. Since its inception in November 2000, it had captured 9% of the total mobile telephony market in Denmark through a simple, transparent and low-cost internet-based model that had proved a big hit with customers. It had led a massive price decline in mobile prices, with charges for voice calls dropping 54% in 2003 alone. By early 2004 Telmore was expected to reach 500,000 customers and to move past Telia to become the fourth largest mobile operator in Denmark after TDC, Sonofon and Orange.

Henning Vest, President of TDC Mobile International, Denmark's largest incumbent Mobile Network Operator (MNO) and a Division of TDC Group, was faced with the dilemma of how to respond to this rapidly growing new entrant.

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About TDC

TDC (formerly Tele Danmark) is the leading provider of telecommunications services in Denmark. It provides domestic local and long-distance service, international calling, Internet access and other data communications services, mobile phone service, and cable TV. In Denmark in 2003 the company had some 4.5 million subscribers for its fixed-line services, about 6.7 million mobile customers, more than 885,000 cable TV customers, and nearly 1.5 million Internet users. Its international holdings include stakes in telecom companies in 12 European countries. US-based **SBC Communications** owns about 42% of TDC.

Formerly the state-controlled monopoly, TDC had countered increased domestic competition by upgrading its infrastructure to provide advanced data services. TDC was also strengthening its position as an international competitive communications provider. The company's international holdings, which account for 55% of sales, included stakes in Polkomtel (Poland), sunrise communications (Switzerland), and Talkline (Germany). In late 2002 the company sold its 16% stake in Ukrainian Mobile Communications to Russian mobile operator Mobile TeleSystem. It also sold its stake in Belgacom (Belgium), held through a consortium with SBC, SingTel, and Belgian finance groups, after Belgacom held its IPO.

TDC planned to expand its fiber-optic network, which links major cities in Denmark, Germany, Norway, and Sweden, into Switzerland. The company also provides high-speed wireless data services and has launched WAP (wireless application protocol) services, providing mobile phone users with news and other data. The company also has consolidated its fixed-line units, Tele Danmark and TDC Internet, into a new division called TDC Solutions. TDC's income statement for year end 2003 is provided at **Appendix A**.

Evolution of the Mobile Network Operator Value Chain

TDC had evolved its Danish mobile phone system over a period of almost a decade. In the early days of the mobile industry, technologies, business processes and channels to market were not yet established. While companies such as Nokia and Ericsson were developing the network infrastructure and handset hardware to support the infant industry, such companies did not typically extend their roles into network management. These were very much the days of vendors selling 'boxes' and base stations to end clients, who would then be responsible for network roll-out and management.

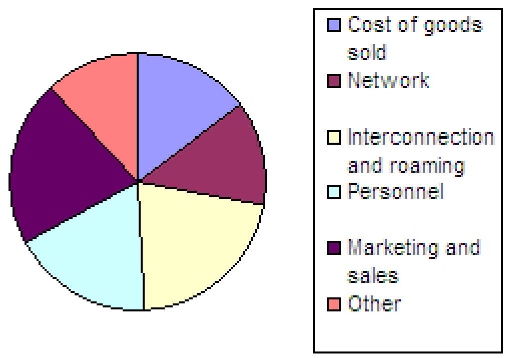
During this growth phase mobile network operators such as TDC employed a dedicated army of network engineers to build out and manage industry infrastructure. Network quality and geographic 'footprint' were critical sources of competitive advantage at this time, but there were few vendors able to offer ongoing network management, even if there had there been demand from MNOs. Network coverage and capacity management were focussed on voice-based services, which accounted for almost 100% of customer demand up until the late 1990s.

Similarly, while vendors provided handsets they did not typically support these handsets with extensive technical support. Again, this often fell to the network operators themselves, seeing the emergence of (voice-focussed) service organisations and supporting call centres. In many European countries, the network operator also controlled the distribution channel, managing everything from supply chain strategy to sales and marketing. Operators acquired broad retail footprints, as well as extensive agency networks, and frequently worked with vendors to build and manage their own billing systems and other supporting technologies.

Simultaneously many operating companies built direct sales forces to service the important business segment. MNOs even built and managed their own billing systems because vendors who can today provide advanced billing and customer relationship management solutions to MNOs, were not yet delivering the breadth of 'off-the shelf' software and services required when the industry was in its infancy. Quite simply, to deal with the incredibly rapid growth of the industry during the late 1990s mobile operating companies needed to build highly integrated operations, focussed on scaling up functional capacities to support rapid acquisition of new voice subscribers.

A typical firm value chain during the 1990s is shown at **Appendix B**. The typical cost structure for an integrated Mobile Network Operator is shown at Figure 1 below, with 'network management' and 'sales and marketing' representing 13% and 21% of sales respectively.

Figure 1: Typical MNO Cost Base
(Source: Nordea Securities)

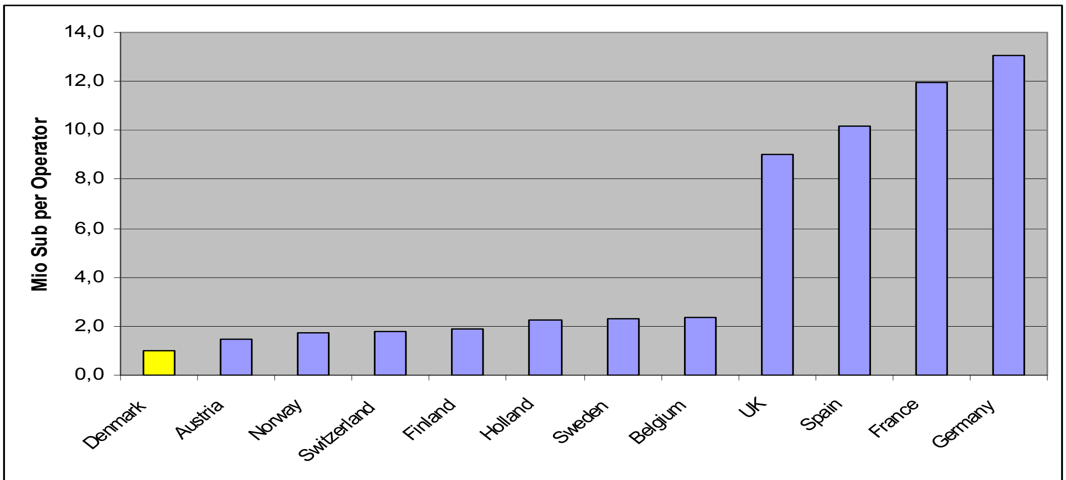


To stitch together a mobile operating company at this time through a series of partnerships or alliances might have been possible, but stitching together a system of other partner companies is extremely difficult when the subsystems and expertise that those companies provide are interdependent. Not surprising then, that the operational processes of large and small mobile operating companies alike tended to extend far in to both ends of the value chain. The extent of this integration deepened for many firms as the complexity of 3G product and service offerings broadened the typical MNO value chain (refer to **Appendix C**).

The Danish Mobile Market

> "It has been said many times through the past years that the Danish mobile market is one of the toughest in the world… Five mobile operators each with their own network and four large serious service providers fighting over a mere 5.5 million Danes mobile phone usage. This is a situation that you will have difficulty-finding elsewhere in the world... If there is a mobile "Hell on Earth" it is undoubtedly in Denmark."
>
> Strand Consulting Report, December 2003.

By 2003 the Danish mobile industry was one of the most competitive in the world. Four ''traditional' Mobile Network Operator Companies – TDC, Sonofon, Orange and TeliaSonera – competed in a market of less than 5.5 million consumers. Newer entrants included the service providers such as Debitel, Tele2, CBB Mobil and Telmore who did not own their own networks. As shown at Figure 2, this high number of competitors meant that Danish mobile companies had the lowest average subscriber numbers of any country in Europe. Market share figures are shown at **Appendix D**.



***** Mio subscribers in country / Number of operators with network

While EBITDA margins for the incumbent (TDC) and first entrant (Sonofon) remained healthy during 2002-2003, the financial situation for the third and fourth operators (Orange and TeliaSonera) was particularly difficult (refer to **Appendix E**). Furthermore, mobile penetration was approaching saturation levels, with almost 85% of Danish consumers having a mobile phone by early 2003. Average outgoing minutes of usage (MOU) per subscription had stabilised (refer to **Appendix F & G**).

Telmore's Operating Model

Commencing operations in the second quarter of 2000, Telmore was founded by entrepreneur Frank Rasmussen. This was Rasmussen's second internet-based business venture, having earlier founded internet service company Image Scandinavia. This business was sold to Danish Internet services company World Online in 1999.

Typically, mobile virtual network operators like Telmore operate by buying excess capacity at wholesale prices from existing network operators and re-selling this capacity to consumers. In theory, the network provider (in the Telmore case this is TDC) profits by gaining a new wholesale channel and also gains revenues from interconnect charges whereby users of Telmore are billed an additional per minute charge for interconnecting with subscribers on the TDC network.

The typical MVNO market entry strategy is to own as little infrastructure as possible, and so MVNOs usually provide basic voice and data (SMS) services as the primary offering. Telmore is at the extreme of MVNO models, operating as a pure service provider with no ownership of network or switching equipment. Quite simply, Telmore purchases mobile SIM cards from TDC and re-sells these SIM cards through its own sales channel. It might be argued that Telmore is not an MVNO at all, but rather a pure 'service' provider.

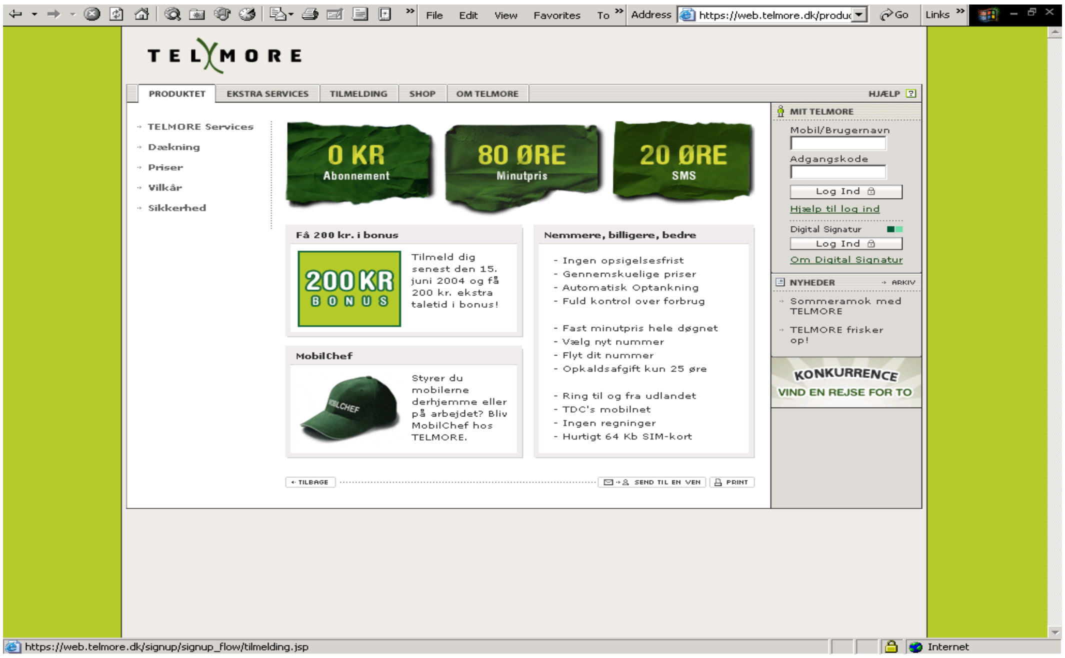
By doing away with the associated costs of performing all the activities within the mobile value chain, Telmore focuses on the 'virtual' aspects of the business - especially marketing and customer service – to offer consumers substantial savings on mobile phone calls. Telmore brands its service, but also promotes the fact that TDC provides connectivity to send a message of reliability.

The key elements of Telmore's operating model are as follows:

1. Uniform product for all
   - no handsets, only SIM-card provided
   - no subscription fee
   - one tariff all the time and all Danish geographic areas
   - no portal or complex multimedia services
2. All interaction via the Internet, phone via SMS
   - adding on/cancelling services
   - recharging account/call specifications/balances via text messages
   - self service FAQ/trouble shooting
   - minimal telephone service
3. Low cost operation
   - no network infrastructure
   - no high-street shops
   - flat organisation with few employees
   - minimal marketing budget
   - all subscribers pre-pay

In a key point of differentiation, Telmore did not sell handsets at significantly discounted prices with a fixed period subscription plan – a model used extensively within the mobile telco industry. Instead, Telmore issued its users with a SIM card that could be inserted into the users existing handset. Moreover, a subscription-less option was an attractive proposition in a market that offered complicated mobile tariffs. It allowed the user to ‘opt-out’ from making a comparison between the tariffs by selecting a basic service that could be easily understood.

Exhibit A: Telmore Homepage

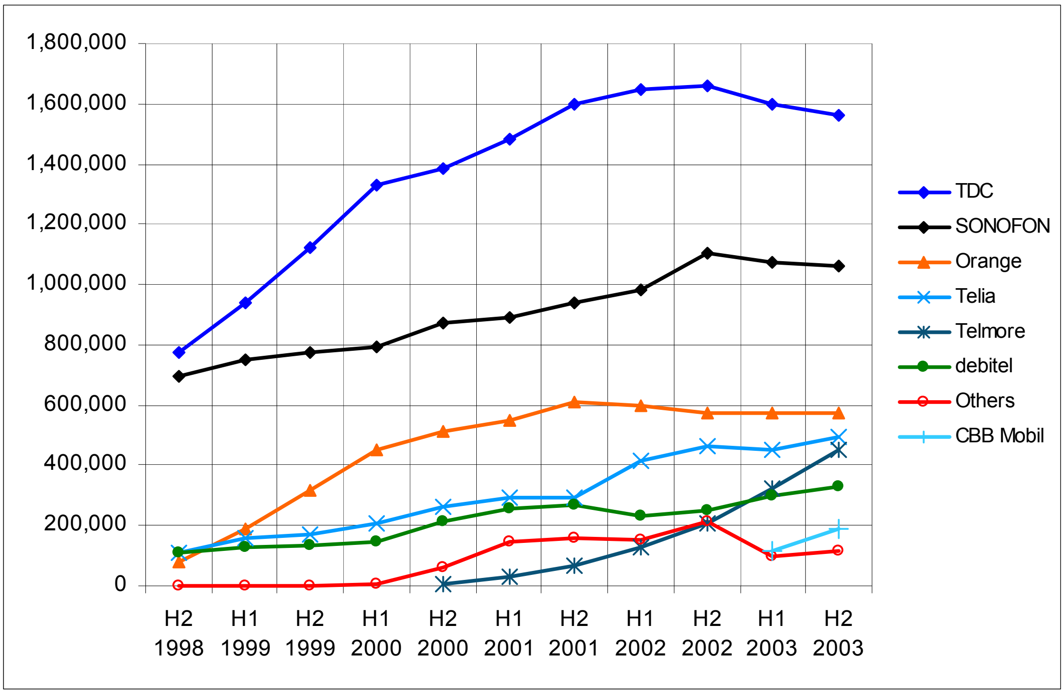


The Telmore service proposition proved to be very popular, and not just for low-end price sensititive customers. An opinion poll, by Danish market research company PLS Ramboll in March 2003, reported 94% of Telmore’s customers were satisfied with the company’s services, while 74% were very satisfied. This was compared to satisfaction rates of up to 65% for the incumbents such as TDC and Sonofon. Telmore had begun to attract not just price conscious customers, but higher spending customers who were attracted to Telmore’s self-service concept and simple tarrif plans.

Furthermore, Telmore did not develop its own multimedia portal to offer ‘value-added’ services such as Vodafone’s !live! or Orange SPV. Telmore was therefore able to keep its operational structure and technology requirements very simple when compared to larger operators pursuing more complex service propositions that required a higher degree of vertical integration. TDC was planning to launch its own portal ‘Fly’ in early 2004, offering customers direct, fast, and easy access to a multitude of news and entertainment. The launch of ’Fly’ would be a step toward what TDC and many other MNOs claimed would be revenue generating third generation (3G) mobile services. TDC’s portal would cover different content areas: Updates, News, Messages, Application Download, Fun & Games, Music, What’s going on, Search & Find, Dating, and a self-service function.

Despite the fact that the mobile telephony market was already occupied by several major players and considered very competitive, Telmore quickly grew. By end of 2001, the company had acquired close to 150,000 customers without significant marketing costs. This result was achieved with only 20 employees organised in a very flat and open organisation. By late 2003 subscriber numbers were approaching 500,000 with fewer than sixty staff.

Denmark: MNO and MVNO Subscriber Numbers 1998 - 2003



Source: National IT and Telecom Agency, Denmark

TDC: Selected Financial and Operational Performance 2002-2003

TDC Mobile

For year-end 2003, domestic mobile net revenues amounted to 1,311mill. Kroner, down 0.2%, reflecting a 16.2% increase in traffic volumes combined with lower average selling prices. These figures includes mobile traffic as well as subscriptions and terminal sales.

Growth was driven by increased wholesale revenues reflecting 134.2% more SMSs sent and growth of 79.1% in wholesale traffic volumes. The increase in wholesale revenues was partly offset by lower retail revenues, which included lower traffic revenues resulting from lower prices due to the more intense competition in the domestic mobile market that was partly offset by 7.3% higher traffic volumes than in 2002.

In addition, retail subscription revenues decreased due to some extent to a change in product mix driven by customers changing to products with lower subscription fees. This was partly offset by a larger customer base, up 8.6% on 2002. The number of domestic mobile customers was 2.471m by the end of 2003, up 25.1% or 496,000 customers. The net additions were divided as 172,000 retail and 324,000 service provider customers, which grew to a total of 728,000 customers. Terminal sales increased DKK 84m or 20.5% mainly as a consequence of significantly higher resale of handsets in 2003 driven by higher subsidies than in 2002.

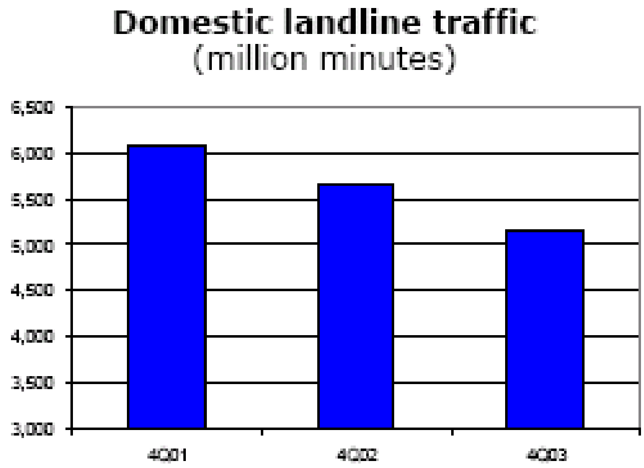
Operating expenses amounted to 932 mill. Kroner, down 6.4%, and comprised higher transmission costs, unchanged expenses for wages, pensions etc., and lower other external charges. Hence, EBITDA increased 5.2% to DKK448m. Domestic mobile operations had capital expenditures of 240mill. Kroner, up 56.9% which related mainly to asset retirement obligations.

Fixed line

Net revenues from landline telephony totaled DKK 2,470m, down 4.6%, reflecting a reduction of DKK 77m, or 4.0%, in landline retail revenues and a reduction of DKK 41m, or 6.3%, in landline wholesale revenues.

Retail traffic revenues amounted to DKK 937m, down 3.0%, reflecting migration from landline voice traffic to mobile voice traffic, however this was partly offset by higher revenues from international outgoing traffic.

Wholesale revenues declined 6.3%. The total number of landline minutes was 5,153m, down 9.0% and the number of domestic retail voice minutes was 2,356m, down 11.9%. Domestic wholesale traffic amounted to 2,797m minutes, down 6.5%. EBIT totaled DKK 401m, down 17.8%.



Response by TDC

Not surprisingly, the MVNO business model, which has many similarities to the model used by low-cost airlines to undercut traditional airlines, was very worrying for the incumbent telco operators, forcing them to rethink their business models and strategies. Within Denmark, Telmore and other operators who targeted the discount segment had begun to attract existing TDC customers. Indeed, the two largest discount mobile service providers - Telmore and CBB Mobil – had managed to acquire no less than 43.7% of all new mobile customers from 2nd half 2000 to 1st half 2003.

In the last six months of 2003 the price per minute for a call on a mobile phone in Denmark had dropped to just 0.09 Euros from 0.17 Euros. The price for sending an SMS text message more than halved to 0.03 Euros from 0.07 Euros. In response to the threat posed by Telmore and other MVNOs, the two largest mobile operators in Denmark announced that they would also be introducing inter-net based subscription services aimed at younger age groups.

In December 2002, TDC launched a "do-it-yourself" internet-based subscription aimed at young internet-savvy users. Max Middleboe, President of TDC mobile, explained features of the new service: "MiXiT customers can only get assistance during the daytime on weekdays - and only via a billing number. To become a MiXiT customer you must have a mobile phone in advance. MiXiT customers cannot, for instance, get assistance in the Tele Shops and the other sales chains we cooperate with. It is also expected that the customers have technological insight and do not need assistance. Therefore they get a lower price".

MiXiT had shown disappointing results by mid 2003, doing little to stem the loss of revenues and reduction in market share for TDC. Industry experts, who drew parallels with the airlines industry, questioned whether entry into the discount market was the most appropriate response by incumbents such as TDC in warding off the threat posed by Telmore and other low-cost service providers.

By the end of 2003 the competitive responses of TDC and the other Danish incumbents had almost completely failed to stem the rapid growth of Telmore. How should TDC respond to the threat of Telmore and other internet-based service providers moving forward? Would the creation of their own internet-only businesses solve their problems? Henning Vest pondered these questions as Telmore and other low-cost operators continued to erode prices and capture market share.

Appendix A: TDC Group Income Statement 2003

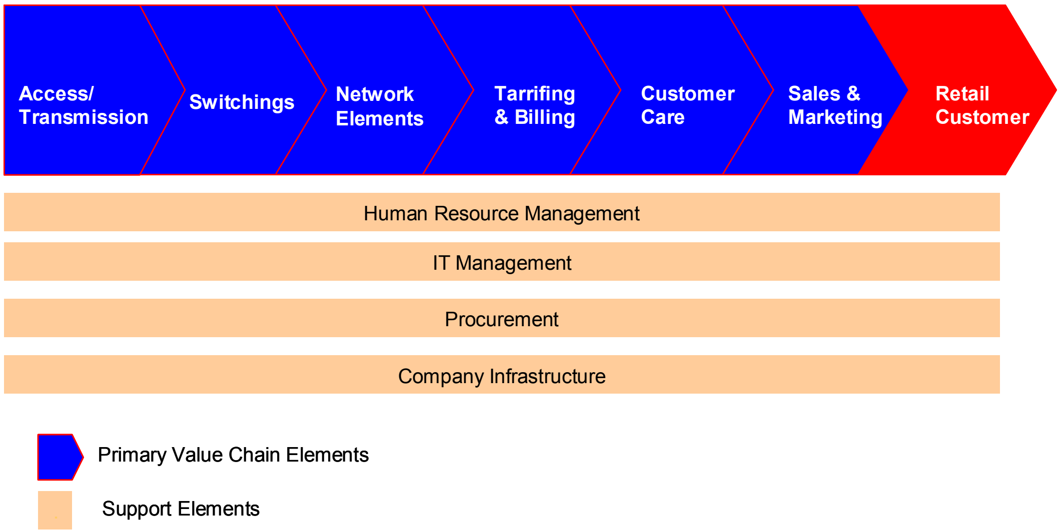
TDC Group, Income Statements

DKKm	2002	2003	Change in %
Net revenues	**51,155**	**50,263**	**(1.7)**
Total revenues	**53,477**	**52,355**	**(2.1)**
Total operating expenses	(39,164)	(37,068)	5.4
EBITDA[1]	**14,313**	**15,287**	**6.8**
Depreciation, amortization and write-downs	(9,178)	(9,328)	(1.6)
EBIT[2]	**5,135**	**5,959**	**16.0**
One-time items	(1,133)	(1,719)	(51.7)
Net financials	2,133	(587)	-
- of which fair value adjustments	3,257	572	(82.4)
Income before income taxes	**6,135**	**3,653**	**(40.5)**
Income taxes	(1,686)	(1,644)	2.5
Income before minority interests	**4,449**	**2,009**	**(54.8)**
Minority interests' share of net income	93	(209)	-
Net income	**4,542**	**1,800**	**(60.4)**
Net income excl. one-time items and fair value adjustments	**2,169**	**2,466**	**13.7**
EBITDA margin in %	**28.0**	**30.4**	**-**

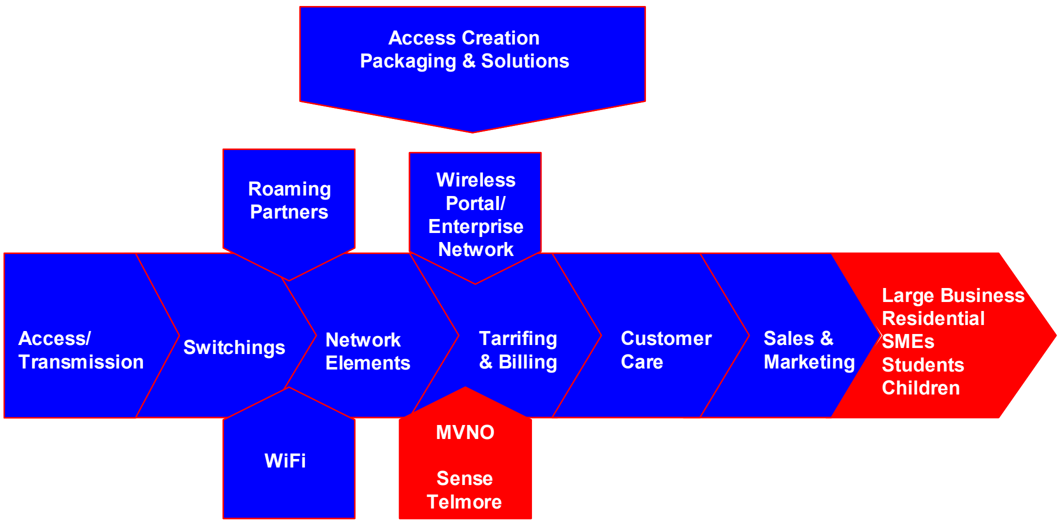
1) TDC uses EBITDA (earnings before interest, taxes, depreciation and amortization) as a measurement for operating performance. For further explanation please refer to page 35.

2) EBIT (Earnings before interest and taxes) is excl. one-time items in this report unless otherwise stated.

Appendix B: Typical Mobile Network Operator Value Chain (2G)

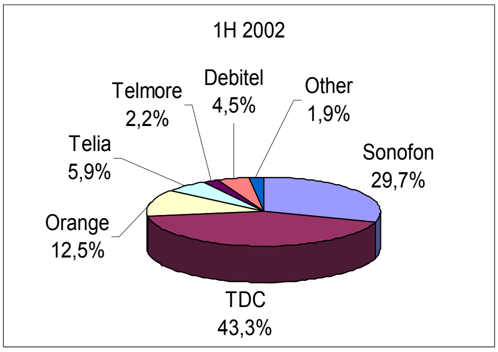


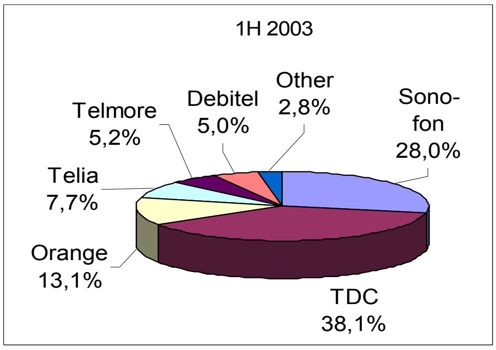
Appendix C: Typical Mobile Network Operator Value Chain (2.5 and 3G)



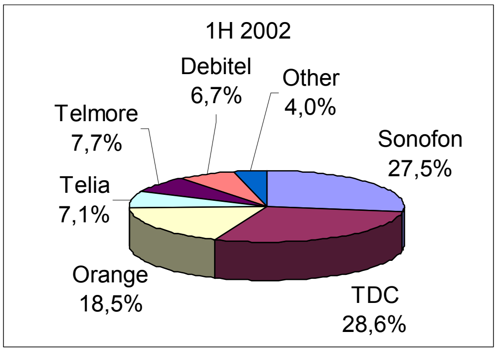
Appendix D: Denmark Mobile Industry Market Share

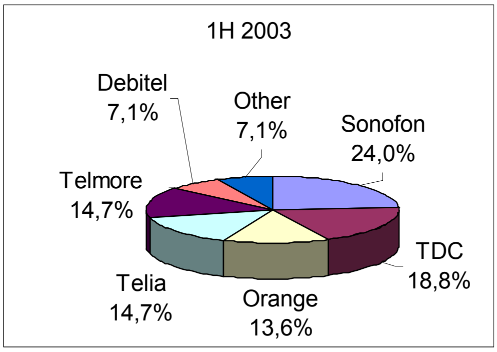
1. Voice by Volume 2002 & 2003



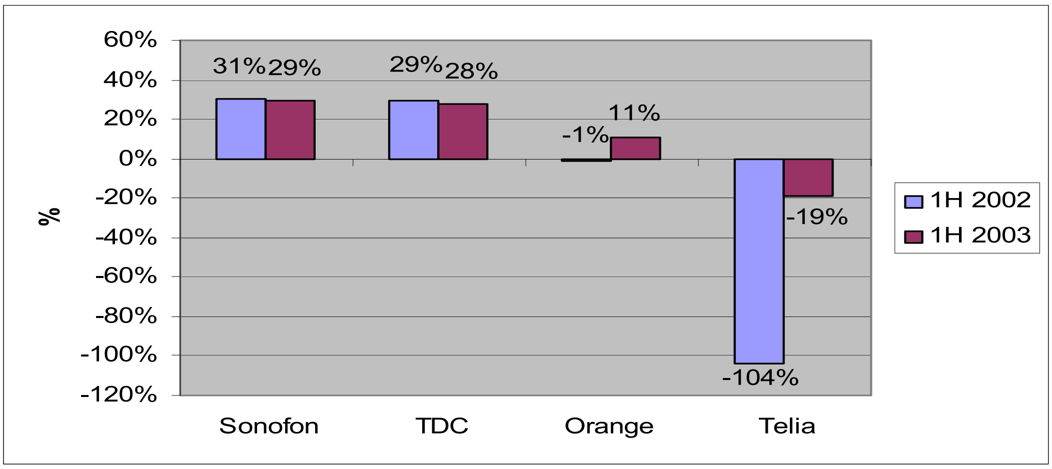


2. Messaging by Volume 2002 & 2003

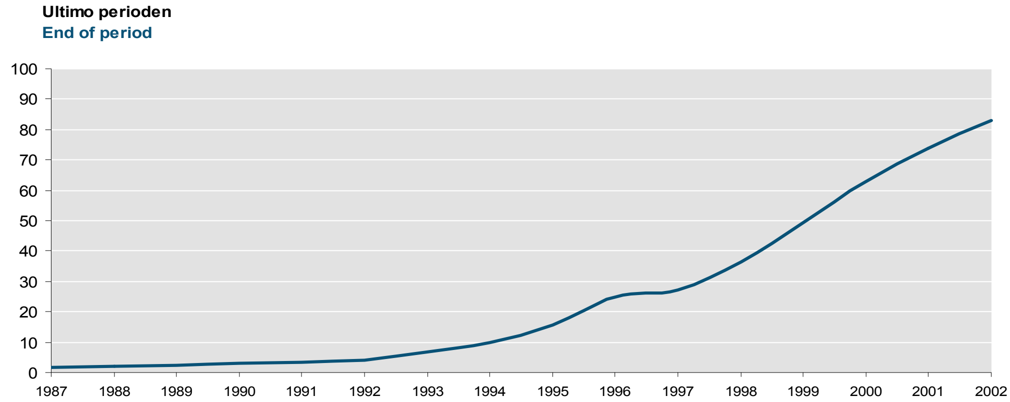




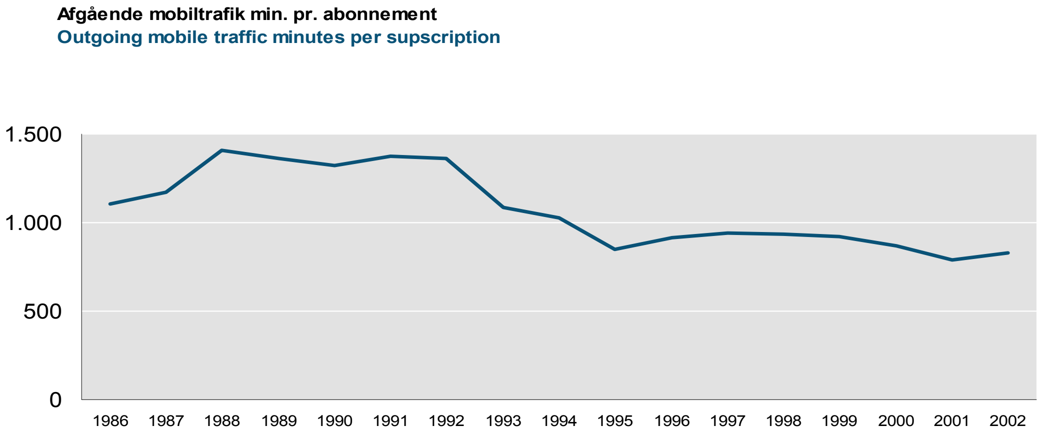
Appendix E: Denmark EBITDA development – margins*



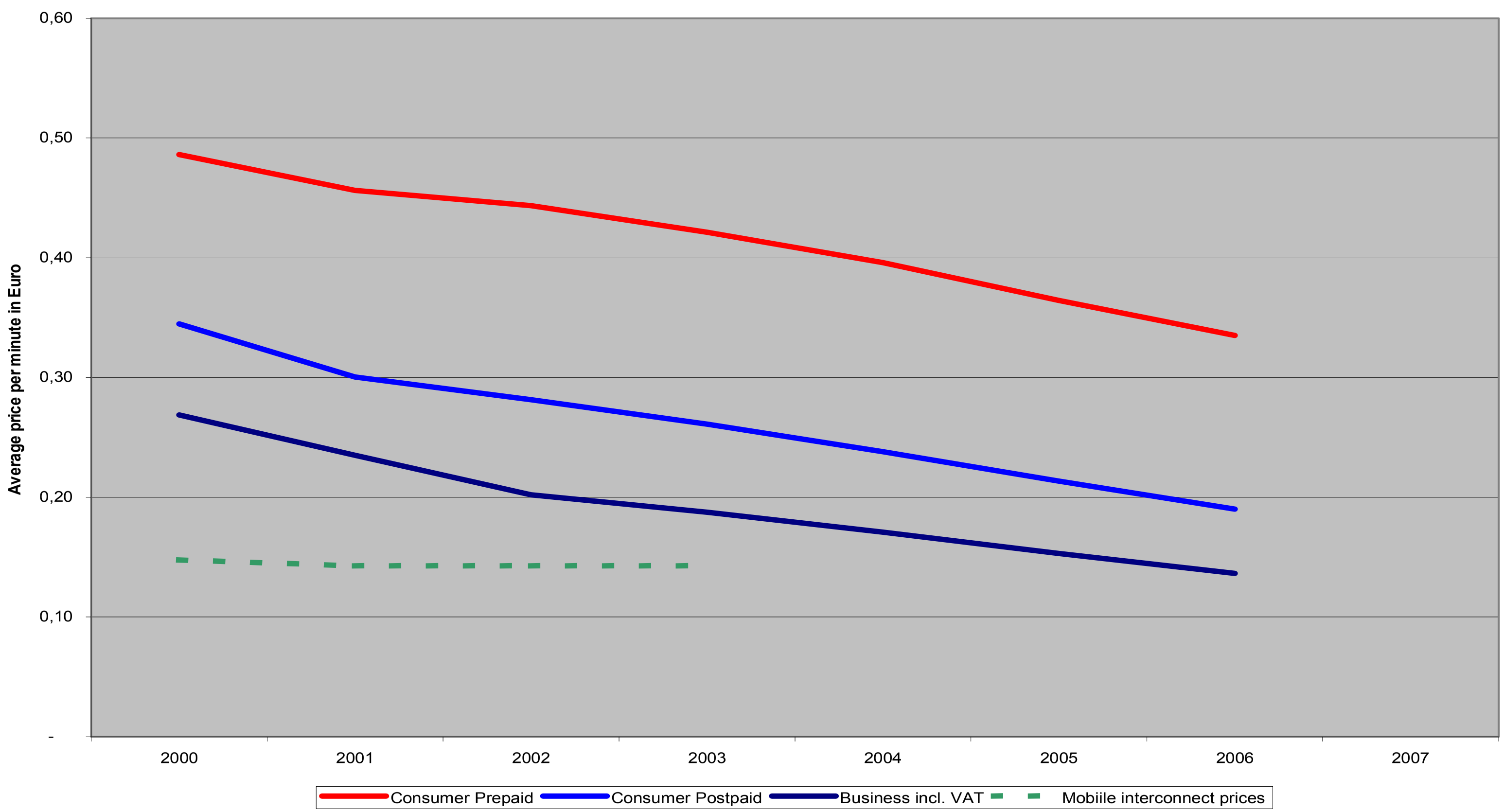
Appendix F: Denmark Mobile Penetration Rates



Appendix G: Average Minutes of Usage



Appendix H: Denmark development in avg. price per minute in Euro 2000-2003 (real) and 2004 – 2006 (forecast)



Appendix I: TDC Mobile International Group: Financial Performance Year end 2003

TDC Mobile International Group

TDC Mobile International includes mainly TDC Mobil A/S, Talkline, Polkomtel, Bité and One (formerly Connect Austria).

DKKm	2002	2003	Change in %
Net revenues, total	**16,259**	**15,420**	**(5.2)**
Domestic operations	5,152	5,433	5.5
European network operators	3,474	3,319	(4.5)
Talkline	7,633	6,668	(12.6)
Other revenues [1]	394	299	(24.1)
Total revenues	**16,653**	**15,719**	**(5.6)**
Operating expenses	**(13,425)**	**(12,467)**	**7.1**
Transmission costs, raw materials and supplies	(8,317)	(7,565)	9.0
Other external charges	(3,905)	(3,730)	4.5
Wages, salaries and pension costs	(1,203)	(1,172)	2.6
EBITDA	**3,228**	**3,252**	**0.7**
Domestic operations	1,618	1,674	3.5
European network operators	1,117	1,065	(4.7)
Talkline	493	513	4.1
Depreciation, amortization and write-downs	(1,542)	(1,524)	1.2
EBIT	**1,686**	**1,728**	**2.5**

1) Includes other operating income and work performed for own purposes and capitalized.