

The Emerald Research Register for this journal is available at
<http://www.emeraldinsight.com/researchregister>



The current issue and full text archive of this journal is available at
<http://www.emeraldinsight.com/0007-070X.htm>

BFJ
105,9

Pills by post? German retail pharmacies and the Internet

Ruth A. Schmidt

*Department of Retailing and Marketing, The Business School,
Manchester Metropolitan University, Manchester, UK, and*

Elke A. Pioch

*Department of Retailing and Marketing, The Business School,
Manchester Metropolitan University, Manchester, UK*

618

Keywords *Pharmaceuticals industry, Internet, Retailing, Medicines, Germany*

Abstract *The advent of Internet trading in medicines, as epitomized by the recently attempted market entry of the Dutch Internet pharmacy DocMorris into the tightly regulated German retail pharmacy sector, presents a new competitive challenge to this industry. Based on the findings of a 1999 field study of retail pharmacies in Berlin and Brandenburg and an examination of pharmacy Web sites, as well as pharmacy related professional portals and networks on the Internet, this paper applies Bickerton et al.'s framework of competitive forces to structure the analysis of attitudes and developments in the application of information technology in this sector.*

Introduction – the DocMorris challenge

Since June 2000, 0800DocMorris.com, claiming to be the Internet service offered by Apotheek van Wersch, a pharmacy trading from Kerkrade in The Netherlands, has caused a considerable uproar in the German pharmacy trade. With a customer base of around 5,000 and a maximum of 130 orders a day, the Internet trade in medicines still seems rather limited. However, the lucrative German market, which makes up 80 per cent of DocMorris's turnover has much more to offer. It is therefore the company's declared aim to expand further by breaking into the hitherto tightly controlled German prescription-only market through Internet trading.

These activities have provoked swift defensive legal action and much debate. Following a joint complaint by *Deutscher Apothekerverband* (the German Association of Pharmacists) and a leading German pharmaceutical concern, an injunction against DocMorris's Internet trading activities was granted. The activities were judged to be contrary to legal principles set out in the *Arzneimittelgesetz* (law on medicines), as well as in the *Heilmittel-Werbegesetz* (law on advertising of medicinal products). Contravention was found in three areas: first, pharmacy-only medicines are not to be dispatched to the end user via the mail order channel; second, only medicines which meet German criteria can be traded in Germany, and finally it is illegal to advertise prescription-only medicines and medicines not permitted in Germany

A previous version of this paper was included in the proceedings of the 11th International Conference on Research in the Distributive Trades, 27-29 June 2001, Tilburg, The Netherlands. This paper should be read as a case study, which follows the debate until September 2001



British Food Journal
Vol. 105 No. 9, 2003
pp. 618-633
© MCB UP Limited
0007-070X
DOI 10.1108/00070700310497354

(www.netdokter.de/topic/Internetapotheke/docmorris.htm). However, the full legal position remains far from clear. Thus the injunction failed to be upheld by the federal courts in Stuttgart, Berlin and Hamburg (www.abda.de (accessed 9 January 2001)). Simultaneously, test cases with 15 insurance providers were under way to establish whether prescriptions dispensed via Internet trading would be processed by the various health insurance companies.

So what is this battle for (at best marginal) custom all about? Are German pharmacists simply jealously guarding their highly protected environment against uncomfortable change and additional competition? Or are there other issues at stake? This paper discusses the key structural and political factors at play in the debate surrounding the use of the Internet and its potential as a tool for the German pharmacy trade, and relates them to a primary research based study of pharmacists and their views and activities with regard to IT developments.

The German pharmacy trade

In Germany every year approximately 900 million medicines are prescribed and a further 600 million are sold as self medication OTC in pharmacies (www.abda.de (accessed 13 December 2000)).

Throughout the 1990s German retail pharmacies have experienced increasing downward pressures on margins in an increasingly uncertain competitive environment. The sector remains one of the most tightly regulated: most medicines may only be dispensed in the presence of a pharmacist, who can only own and run one outlet; prices for drugs are fixed nationwide and marketing/promotional activities are tightly restricted. Consecutive legislative measures aimed at containing healthcare costs have resulted in average net margins of only 0.6 per cent (Volksbanken Raiffeisenbanken, 1999) putting 40 per cent of German pharmacies in a marginal loss-making position (ABDA, 1999).

In contrast, the external environment has presented pharmacists with the challenge of major changes. These include the integration of East Germany and consequent restructuring of the sector, plus the advent of the single European market with the possibility of international trade. In addition, there is threat of potential legalization of multiple formation, as well as the growing competition from new entrants to the general sales list market, such as drugstores and supermarkets. Sector strategic responses to these changes have been explored in Schmidt and Pioch (2001) and Pioch and Schmidt (2001), who discussed the central role of the professional self-image of pharmacists in shaping their stance. They also pointed to marked differences in the extent to which pharmacists were responding proactively to the constraints posed by the tight regulatory regime and other external pressures.

The advent of direct competition via the Internet thus presents a further challenge, which may make it necessary for the retail pharmacy profession as a whole, as well as for each individual pharmacist, to reevaluate their position with regard to the strategic role of information technology in their business.

Research objectives and design

This paper sets out to investigate the current attitudes towards and key applications of new technology and the Internet in the German retail pharmacy trade. This is done in the light of the main themes emerging from the current debate surrounding the advent of the potential threat from Internet pharmacies, i.e. the regulatory regime, pricing issues, service levels and requirements, professional ethos, skills development and ultimately cross-border trade. The aim is to contrast and compare the perspectives of the various stakeholders in this debate and to assess the impact of the Internet on this tightly regulated market from the point of view of German pharmacists.

Bickerton *et al.*'s (1998, p. 2) decision-making framework for newcomers to the possibilities of Internet marketing has been adapted and used to organize the findings thematically (see Figure 1). It builds on Porter's model for evaluating changes in the competitive environment but focuses on the particular issue of new technology. The model is used as an aid to structure the discussion of the findings in the remainder of the paper.

The primary research was designed to make use of the Berlin and Brandenburg area (federal state surrounding Berlin and formerly part of the German Democratic Republic) as a case study, and within this area it set out to capture the activities of pharmacies currently operating Web sites, as well as the views of those who do not.

In the first phase, fieldwork was carried out in September 1999 in Berlin and Brandenburg. Data collection and analysis followed the principles of grounded theory (Strauss and Corbin, 1990; 1994), adopting the constant comparative method of data collection and theory formulation until theoretical saturation was achieved. Observation in the unit of analysis (the community pharmacy) was combined with in-depth key informant interviews, comprising 13 pharmacists representing 11 pharmacies with a variety of characteristics representing the different outlet types making up the market in this geographical area. The views of representatives of the two key federal professional bodies, the Berlin Pharmacists' Chamber (*Apothekerkammer*) and the Pharmacists' Association (*Apothekerverein*)[1] were also sought.

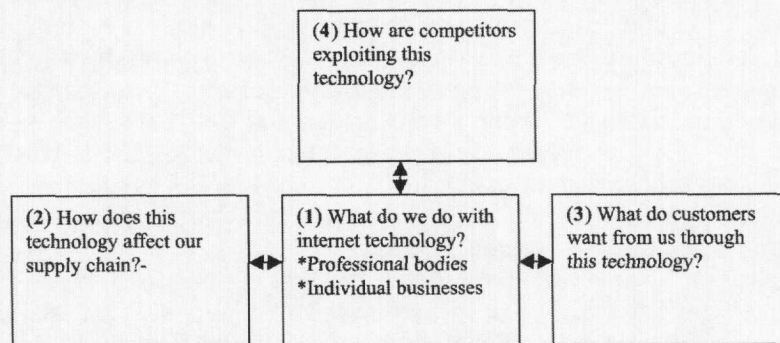


Figure 1.
New technology and the competitive environment

Source: Adapted from Bickerton *et al.* (1998:2)

In the second phase a detailed examination of the content and features of Berlin and Brandenburg pharmacies' Web sites accessible via yahoo.de was carried out. The Web sites of potential competitors, such as leading German health and beauty drugstores (e.g. Schlecker and IhrPlatz), as well as 0800DocMorris.com have also been scrutinized. The analysis is structured around the key issues of presentation and interaction as detailed in Table I.

Following a detailed thematic analysis of the findings, these were linked back to the themes and perspectives on Internet pharmacies emerging from the DocMorris debate, as covered by the media and on the Internet.

Findings

Overall, findings[2] indicate that German pharmacists are relatively slow to embrace the introduction of IT. Whilst there are some initiatives by individual pharmacy owners, overall the main thrusts of IT developments in the pharmacy trade are centrally driven by suppliers on the one hand and by the major pharmacists' professional associations and voluntary trade networks on the other. Due to the legal prohibition of multiple formation for German pharmacies, this is the only way in which economies of scale and scope can be exploited and coherence of developments achieved.

What do we do with Internet technology? Developments driven by pharmacists' professional bodies

True to the core ethos of the profession, the National Confederation of Federal Pharmacists' Associations (ABDA – the umbrella organization which incorporates the Pharmacists' Association and its marketing subsidiary, as well as the Pharmacists' Chamber) is currently developing an Internet portal

	Berlin A	Brandenburg B C D			E	F	G	H
<i>Presentation</i>								
Picture of team and/or shop			✓	✓	✓	✓	✓	Not contactable
Opening hours/emergency cover		✓	✓		✓	✓	✓	
Location map		✓	✓					
Advert for additional services			✓	✓		✓	✓	
Advertising of products		✓		✓		✓	✓	
Advice on health topics	✓	✓			✓		✓	
Links to other sites	✓	✓	✓					
Other special info features		✓			✓			
<i>Interaction</i>								
Visitors' book			✓					
Contact details/e-mail address	✓	✓	✓	✓	✓	✓		
Newsletter, bulletin, mailing list	✓			✓				
Customer card application					✓			
Detailed feedback proforma				✓	✓	✓	✓	
Discussion group facility	✓			✓				
Teleshopping (product range)	✓ (1138)			✓ (55)				

Table I.
Pharmacy Web site features

BFJ
105,9

for offering advice on all health and pharmacy related issues. Pharmacists are encouraged to use the portal to advertise products and services to be ordered over the Internet and picked up in the pharmacy. ABDA claims German pharmacists are not lagging behind in Internet usage, as the new portal would enable customers to contact their local pharmacy and reserve medicines in advance:

622

Pharmacists welcome the Internet as an excellent medium for information and communication. They see this new medium as a superb chance to further enhance their role as providers of information and advice on medicines. ABDA therefore will be offering a new health portal in the new year ... (www.ApoIndex.de (accessed 13 December 2000)).

The Pharmacists Marketing Association (MGDA (www.mgda.de)) reflects the same ethos in its explicit aims of supporting/enhancing self-medication in pharmacies and emphasizing the advice function of pharmacies. They mediate between consumer and industry with the retail pharmacy as the focal point. MGDA offers intranet services for the marketing of pharmacies and runs workshops for pharmacists to learn how to present their businesses on the Internet. In January 2001, they were running an online research project, via online questionnaire addressed to pharmacists, on the *status quo* regarding Internet use and prevailing attitudes.

Apotheke.de (January 2001) (owned by Gehe, a prominent pharmaceutical wholesaler with European wide interests) aim:

... to create a centralized, neutral and independent platform which offers pharmacists Internet representation as well as access to useful information.

The site features a pharmacist-only intranet as well as public domain access for customers (which serves as a gateway to individual pharmacies' home pages). Medizin.de is linked to Apotheke.de and offers a free listing service for all pharmacies.

Also directed at both the pharmacy owner and the end consumer, ApoIndex.de (by Pharma-networx) offers a leading pharmacy Web site with access to facts, figures, statistics, advice, a database of the around 21,000 German pharmacies and a search engine facility (by postcode) for late and weekend openings. In a linked page, Pharma-networx.de offers Internet services and products around everything to do with health and the Internet, in particular featuring pharmacy homepages which they frame as a "must have" marketing tool. There has been a substantial growth of home pages registered with ApoIndex.de from 29 in March 1998, over 309 in October 1999 to 987 in January 2001.

What do we do with Internet technology? Developments driven by individual pharmacies

However, whilst there may be rapid growth in the number of home pages listed, 987 are only a very small proportion of the potential of more than 21,000. For Berlin and Brandenburg, ABDA lists 872 and 521 pharmacies for 1999 (www.abda.de), however, only four respectively have Web sites easily located

and accessed via one of the leading general search engines, yahoo.de. The main features of these Web sites are summarized in Table I.

A comparative evaluation of Web site content and features shows that the pharmacies make the greatest use of their Web site as a communication and presentation vehicle. Often loving attention to detail in the design of the site shows a great deal of commitment to duplicating the professional and customer care ethos of the pharmacy in the virtual environment. Web sites aim to differentiate their virtual offering by introducing additional service features, such as pollen (allergy) information, links to other services, such as the poison information centre, and beauty advisory services, linked to the promotion of pharmacy-only medicinal cosmetics. The human side is stressed through photos of the team, and care is also taken to entertain, through flash animation, advice features, newsletters and discussion groups. Thus the service script is transferred to the Web site and even elaborated on. In contrast, interactive elements such as contact via email or visitor book facilities, both potentially serving as valuable data gathering devices, and teleshopping opportunities are still relatively limited. For the latter, the emphasis is typically on medical gadgets and pharmacy only cosmetics ranges. However, one Berlin pharmacy (see Table I, A) presents a good example of how this can easily be extended to cover a whole range of health related and associated products. The Web sites of the majority of pharmacies investigated stand in marked contrast to comparable Web sites of leading German drugstores, such as beauty24.de, ihrplatz.de and schlecker.de. For them, the focus is much more commercial. Extended product ranges emphasize beauty and wellness related themes with price competition playing a major part.

In contrast, pharmacy Web sites generally do not compete on price, but focus on the superior character of the merchandise and the complementing advice function (thus mirroring their actual shop offering and professional self-image). Where teleshopping facilities are offered, beautifully presented visual images of the products on sale are utilized throughout, by pharmacists and drugstores alike, in sharp contrast to the DocMorris Internet pharmacy, which simply lists product names, packet contents and prices.

The Web sites examined indicate one potential use of the Internet for retail pharmacies, namely information provision, however, the small numbers point to limited uptake to date. This is reflected in the findings of the 1999 field work, where respondents varied considerably in their use of IT. A large pharmacy in Berlin made strategic use of it:

We have excellent computer equipment and software, naturally that is up to the individual pharmacist, our boss is a partner in a software house, making software specifically designed for our computer and he sells all upgrades to the pharmacy as soon as they come out. Yes, this is really excellent (AP6).

Smaller pharmacies typically adopt a cautious wait-and-see attitude or even reject the whole concept:

We don't have Internet access because I am no friend of computers (AP1).

At that time the representative of the Pharmacists' Association admitted:

We are getting there, last year we collaborated with a particular firm and offered a course in basic Excel and Windows to give people a flavour of what might be possible. We have a bit of catching up to do. Now we also offer an Internet course, especially for pharmacists, and there is also a so-called intranet in use in pharmacist circles. This intranet exists but is currently still under construction, this is steered by ABDA from above. So far it is not really doing all that much (PA).

However, there is also evidence from younger, more entrepreneurial orientated pharmacists:

They set up their own intranet to gain economies of scale from suppliers and to improve customer service. This is achieved by access to each pharmacy's inventory (AP11).

How does this technology affect our supply chain? Supplier driven developments
Despite claims that the pharmacy trade is already leading in business-to-business electronic communications – “90-95 per cent have electronic link-ups with the suppliers” (PC), there are large differences between pharmacies. Respondents interviewed during the 1999 field work indicated that the use of an old-fashioned punch card system is by no means uncommon:

We still have a really old-fashioned system here, with punch cards, which are used to transfer the data; some pharmacies which are even smaller simply do it over the phone, they don't even have punch cards, and the larger pharmacies are connected to the suppliers via their computers; so there are quite a lot of different systems (AP4).

Whilst nine of the pharmacies included in the investigation had computer links with suppliers, few were driving IT updates proactively. Initiatives often stem from the suppliers who insisted on the standardized introduction of the present electronic ordering systems in the first place:

We do use electronic data transfer, it cannot be done any other way; this has been pretty much imposed by the wholesalers, so they imposed it and we started transferring the data electronically . . . It's about 12 years ago, they practically said either you order electronically, and there weren't really many computers then, or else (AP8).

For East German pharmacies, the introduction of IT was also supported by the *Treuhand Gesellschaft* (body overseeing the transition process from formerly State owned concerns into private ownership):

We were administered by the *Treuhand* and one time we were lent a computer for four weeks, just as an introduction, must have been a computer firm in cooperation with *Treuhand*; well we couldn't keep that one, but then another firm came along and then everything happened very rapidly. And this has been a big help, before we were always looking everything up in the Red List [listing all medicines, strengths and pack sizes], whenever there was anything, is it available in that size, that strength . . . (AP2).

Thus, whilst electronic ordering and stock control systems are – on the one hand – virtually imposed as a necessity to be able to comply with the obligatory stock holding requirements, and – on the other hand – because of supplier demands, comments indicate a leaning towards passive acceptance rather than proactive enthusiasm amongst the majority of the Berlin and

Brandenburg respondents. There were only a few notable exceptions, with one pharmacist (AP6) praising the benefits of automatic reordering and ordering in response to POS data inputs:

... if demand could not be met immediately either because products were out of stock or had not been part of the inventory, the system initiated ordering automatically. Another actively used the computer system to link up a small informal buying group, and also produces statistical information for other network partners (AP11).

What do customers want from us through the new technology? Perceived demand

Some of the relative complacency observed may be due to a perceived lack of pressure from customer to engage with IT. The market differs considerably from the typical early IT adopter profile. Quelch and Klein (1996, p. 61) found:

... audiences skewed toward college-educated white males in their early thirties, earning higher than average incomes and employed in the computer, education, and other professional fields.

In contrast the aggregate market for medicines is biased towards females and the elderly (AWA, 1999), and this is also reflected in the profile of the customers of respondents: nine particularly mentioned old age pensioners as key customers and five referred to young families as an important core segment. This factor inhibits Web site development:

We don't know whether our customers would be interested in it [i.e. the Internet], I mean, most of our customers are elderly, and a few young ones, mums with children, and whether any of them are computer freaks, who are interested in this kind of thing ... It's a pity, but maybe one day ... we will have to wait and see (AP2).

However, customers do value the pharmacists' expertise and advisory function, and IT has an important part to play in that. Orchestrated by MGDA, the awareness raising campaigns of the last five years have drawn the public's attention to the provision of advice by their local pharmacist. Market research by *GEMAR-Marktforschungsinstitut* shows growing demand for such services. In 1998, 95 per cent of Germans thought advice for OTC medicines was very important. For prescription medicines, the figure rose from 72 per cent in 1995 to 86 per cent in 1998 (ABDATE, 2000). The representative of the Pharmacists' Chamber explained the crucial role of electronically stored information:

What is important is the ABDA database. This is probably the largest database in Europe or even the world, which lists the largest collection of medicines, their effects, side effects and contra-indications. This is an expert system available to each pharmacy via the special pharmacist software. It makes all this information available at the POS and thereby substantially enhances patient safety ... it works like this ... when the sale is put through then the database automatically checks whether there are any contra-indications or incompatibilities [with other drugs] which might cause danger to the patient (PC).

This is further supplemented by human expertise:

We [i.e. the Chamber] offer an information service giving all pharmacies access to a team of experts, which is committed to answering questions within 24 hours, these are usually complex difficult questions regarding pharmaceutical matters. This is done by fax (PC).

When questioned whether email would be an appropriate medium for answering such queries, the Chamber representative added later "we have email, but they [i.e. the pharmacies] don't".

Individual respondents strongly stressed the importance of the professional advisory function and named the need for human contact as their key reason for opposing Internet trade in medicines:

In these times of the Internet and ordering medicines via the Internet it is important to re-emphasize these core values (of quality professional advice and care), as we could be treading a very dangerous path. So often there is a call for mail order pharmacies, this originates with ... the insurers who think it would be cheaper; it is a very dangerous thing. We often observe that we are the break and control, which is absolutely needed where contra-indications between different medicines are concerned, or even when it is just the question of which one is the best medicine. It is easy to press the wrong button, even in a doctor's surgery, and we spend a lot of time checking with doctors: is it the right product, the right strength, the right quantity and dosage? The patient is often too excited to remember correctly what the doctor said, and if it doesn't say on the prescription, then naturally we can't say how the medicine should be administered. Especially elderly people often ask for advice, and others ask questions concerning the impact of medicines on their ability to react, whether they can drive a car or not – as I said it is absolutely necessary to be able to provide this service (AP10).

This approach certainly pays off in terms of customer evaluations of the services offered by pharmacies. A Consumer Monitor 1999 satisfaction study shows that out of 47 sectors, pharmacists (after opticians) occupy second place, demonstrating an increase in mean satisfaction measure for pharmacies for the last three years (ABDA, 2000).

Whilst opposed to Internet trading, respondents were aware of different uses of IT, particularly in the form of customer cards, an electronic means of capturing customer information, which could be used in a variety of ways to strengthen long-term ties, including the possibility of loyalty schemes and direct marketing. However, as Table II indicates, pharmacists were divided in their evaluation of such a facility.

The most important counter-argument to the use of customer cards is that of a perceived unnecessary duplication of what is an integral part of the interpersonal relationship between the pharmacist and the patient. Small

Yes, because ...	<i>n</i>	No, because ...	<i>n</i>
Supports control, guardian and advice function	4 ^a	We know our customers	4
Helps personalize the relationship via, e.g. birthday cards, etc	1	Data protection issues	2
Strengthens customer ties	1	Impersonal	1
		Lack of competitive pressure	1
		Opposed in principle	1

Note: ^a Multiple responses permitted

Table II.
Customer cards – pros and cons

pharmacies in particular see personal knowledge about their customers as their own unique strength and are therefore reluctant to embrace change in this area:

Well, in this small pharmacy we have it all in our heads ... in a large pharmacy it is all computerized, the stock management and automatic reordering, even when, for instance a patient has the same thing every week and suddenly he or she isn't there anymore, they have died or something like that, and the computer carries on and orders stock for another two months, even though maybe the patient has even been in to say goodbye and told you that he or she is moving to England, well we have it in our heads just like everybody always used to in the old days (AP8).

In summary, the analysis of issues related to three of the themes in Bickerton *et al.*'s (1998) adapted model, namely the profession's response to Internet technology, supplier demands and perceived customer expectations, suggests a relative reluctance by the majority of respondents to embrace the challenges of the new technology. Apart from the issues raised above, this may also be due to increasing time pressures on the self-employed pharmacists, who see their margins dwindling and have limited resources to spare for additional qualified personnel. This ultimately leads to a skills gap, which is difficult to overcome despite the efforts of the professional organizations.

The Pharmacists' Association's representative states:

Well, I would say we are already doing quite a lot, but of course one could always do more, so maybe eventually we might run one session a week; but there comes a point when people get really exhausted and don't feel like it any more and would rather go to the pub than to the "House of Pharmacy". But we could do more, so for instance we now also offer that people might learn about IT. Well, at the end of the day everybody has IT in their business already in the form of the pharmacy software, i.e. the stock management system, but it is rare that anybody does anything creative with that (PA).

Participation in the Pharmacists' Chamber is on a voluntary basis only, and the Chamber therefore takes care to reflect popular demand in its offering. When questioned about developing Internet usage for pharmacies, the Chamber's representative said rather than finding time or money for development it was a question of:

... the motivation of the pharmacists in Berlin. It would have to have their support. If they are not prepared to get involved with the new medium Internet – and that is largely a question of the age profile, then it is a problem (PC).

He describes the decision-making process in the Chamber:

It is always the same, it has to be supported by members' opinions, as in all democratic systems, and we have to see what is possible. It cannot be imposed from above. The demand has to come from the pharmacists and then we have to assess what is feasible and have to implement it. This is also the reason why work in APKA is largely voluntary (PC).

The change in the professional definition of the traditional "pharmacists' assistant" to "pharmaceutical manager", who has to undergo a longer dual system apprenticeship and a further education course with mandatory IT content, may go some way towards addressing this skills gap in the medium to long term. However, in its conception it does relegate IT to the status of a

support function rather than a strategic component, and in any case may take some time to filter through. In the meantime, whilst there are some excellent initiatives in the application of Internet technology in the pharmacy trade, both at the professional association level and within a small number of individual pharmacies, collective developments, attitude formation and accompanying professional updating and skills development may be rather slower than the public image ABDA wishes to portray.

How are competitors exploiting this technology?

Not surprisingly, only a small number of customers are currently using the Internet for the purchase of medical supplies, however, awareness is growing:

... according to an Emnid survey this year 1 per cent of Germans used an Internet pharmacy; 55 per cent are aware of the possibilities of ordering medicines over the Internet and 14 per cent believe that they can obtain prescription only medicines without a prescription through this channel (netdokter.de/topic/Internetapotheke/illegaler_handel.htm).

Smart drugs and lifestyle ethical drugs, such as Viagra, are the top Internet sellers, and there is also a growing demand for remedies (often alternative, or even bogus) for chronic illnesses.

However, this is not without risks – world health organization research shows 10 per cent of medicines purchased over the Internet are fakes (www.abda.de (accessed 10 January 2001)). Also Internet suppliers may simply not be acting ethically or in the consumer's interest as shown by two mystery shopper studies carried out by a leading German consumer research organization. PRAXIS (publication of the consumer organisation) ordered 11 products from five Internet pharmacies – only one refused to supply on the grounds of German regulations, the rest got through customs without any problems. All medicines supplied turned out to be genuine, however, one contained a hormone which is illegal in Germany, two contained clearly dangerous substances, but without any explanation of the dangers, contra-indications and possible side effects. Where medicine information leaflets were provided, they were in Spanish or English. In the second study *Stiftung Warentest* (equivalent to the UK's *WHICH?*) ordered 22 medicines from 16 suppliers worldwide. They found huge price differences, some charging extortionate sums for advice and postage (one medicine worked out 17 times the price it would cost in a German pharmacy) and very little information on side effects and contra-indications. This is in breach of EU law stipulating that medicines can only be supplied to consumers with adequate product information.

In contrast to shop-based German pharmacies, which are legally obliged to carry a substantial core product range (out of the full range of 45,000 medicines – an average German pharmacy stocks around 8-12k and can get the rest within hours), Internet pharmacies such as DocMorris can focus their offering on a relatively small selection of premium price products, which they sell at lower prices, thus effectively cherry picking. Thus, DocMorris delivers from an original core product range of 350, which in view of its success has now been

expanded to 1,150 medicines (comparable in size only to one of the Web sites investigated above, but very different in focus).

Much of DocMorris's success can be ascribed to a distinct distortion of the competitive environment brought about by differential legislation. First, DocMorris is making use of the much lower value added tax in The Netherlands (8 per cent as compared to 16 per cent in Germany) (www.abda.de (accessed 17 October 2000)). Second, due to the Dutch law on medicine prices – which came into effect in June 1996 and undercuts the German government's price ceiling for medicines – the firm enjoys a further real price advantage. The law effectively capped prices:

This measure was intended to keep prices at the same level as average prices in neighbouring countries, but has, in fact, kept many prices lower than average (Retail Intelligence, 1999, p. 50).

In the absence of the same legal obligation to offer a specified width of assortment and services, which governs German pharmacies, this dual price advantage can be passed on relatively undiluted to the customer, who may purchase medicines at prices 10 per cent to 25 per cent below comparative German prices. Building on this price advantage, DocMorris have made offers to the German medical insurers to sell a selected range of medicines considerably cheaper (at least 10 per cent) to their clients against prescription, and have stated that, as an added bonus, they would not expect the patient to make a contribution (as they would in Germany). However, in this context it should also be noted that DocMorris offer no description of the medicines; the only advice available is via email and through a telephone hotline. Manager Waterval has been quoted as freely admitting that providing advice is simply not the core of the business (www.netdokter.de/topic/Internetapotheke/docmorris.htm).

The Internet challenge and developments at federal and European Union level

It is largely because of the absence of a commitment to overall patient care, including a strong advice and service function that ABDA, the medical profession, the Association of Research Pharmaceutical Suppliers VFA, and also the association of pharmaceutical wholesalers (Phagro) stand united in their opposition to the Internet as a channel for the distribution of medicines, advocating the mantra of the twin issues of product safety and consumer protection (www.pharmazeutische-zeitung.de).

However, the National Association of Medical Insurance Funds have expressed views strongly in favour of competition and parallel channels, on condition of a clarification of control mechanisms. More specifically, even though ABDA have threatened to sue medical insurance funds if they deal with DocMorris, a representative of AOK (one of the largest medical insurance companies) has spoken in favour of dealing with Internet providers and others have already reimbursed prescription costs to DocMorris. According to the Dutch Internet pharmacy, all but four of Germany's health insurers now accept trade with them (www.0800DocMorris.com (accessed May 2001)). In view of

perceived high medicine prices, a working group of German Consumers' Associations also supports competition via the Internet provided that a proposed a set of guidelines/code of practice for potential Internet pharmacies is adhered to. The proposals include certification and control through the relevant local government agency. Furthermore, the laws of the target country have to be taken into account, medicines must be provided in their original packaging and include patient information in the language of the target country, and providers must be located within the EU (www.agv.de). However, research commissioned jointly by ABDA and the Association of Research Medicine Producers shows German prices for medicines in a European comparative context to be in the lower third. Clearly this is an outcome of recent cumulative cost control/cutting measures and regarding pharmacies as unduly expensive may no longer be justified (ABDA, 2000).

In line with EU wide legislation (there are similar prohibitions in 15 EU member states) the German law on medicines 1998 (*Arzneimittelgesetz*) currently opposes Internet supported mail order medicine services due to the above consumer protection issues. However, the conflicting federal judgments concerning DocMorris resulted in former Federal Health Minister, Andrea Fischer, considering legalization of the sale of medicines via the Internet (www.zdf.de). She argued that since there is clear evidence of demand for Internet pharmacies, it should not be the job of politicians to prohibit consumers from fulfilling their desire. On her resignation, her successor Ulla Schmidt was asked by ABDA to take an explicit stance against this relatively open position (www.abda.de (accessed 10 January 2001)), but overall the jury appears to be still out.

Under a strict interpretation of current German legislation, for the private person, importing larger quantities of medicines may even be treated as a criminal offence. However, all this is only partly successful in curbing potential international trade, as within the EU the postal service only checks packages of suspicious appearance. Therefore, imports of medicines from other countries can pass the border unchecked in unobtrusive packaging, particularly if they are shipped through one of the more liberal markets, such as The Netherlands, the UK or Denmark, where mail order supplies of some medicines are permitted.

Discussion and conclusion

Due to the limited nature of the exploratory qualitative focus on the Berlin and Brandenburg area, current findings can only serve as a barometer of pharmacists' opinions and activities, rather than standing as generalizable to Germany as a whole. However, as a case study grounded in the views of pharmacists the research serves as a useful vehicle to draw out key themes of the ways in which the profession views their service offering to the public and the rather marginal role of the Internet within that.

Arguably the present scope for Internet pharmacies is relatively limited for a number of reasons. The entry of a new player into the competitive environment is currently causing controversy rather than shaking up the market. Germany

has the densest network of pharmacies in the world, and DocMorris's 48 hours delivery time does not compare favourably with the average lead-time of two hours enjoyed by regular pharmacy customers. Also the role of prescription-only medicines is still negligible in Internet trading, as it is far too cumbersome, bureaucratic and time consuming, and therefore only really workable for prescriptions not passing through the medical insurers but paid for directly by patients.

However, this could take a different turn if customer demands and supplier behaviour (see Boxes 3 and 2 in Figure 1) changed. To date, little consumer research with pharmacy customers has been undertaken, thus any analysis is based around provider perceptions. It should be noted, though, that Balabanis and Vassileiou (1999) showed a positive relationship between intention to buy from Web sites and income, prior experience of home shopping and strength of retailer brand. Traditionally in Germany home shopping has had a strong appeal to a broad range of customers and middle-income consumers in particular. This may be a good predictor of a propensity for Internet shopping once the necessary infrastructure is in place. Conversely, customers are not acculturated to obtaining medicines from other than specialist outlets. Only further research would help to form a clearer picture of potential consumer demand for pharmacy services on the Internet.

Likewise, investigations into other supply chain members' attitude and developments are necessary to gauge their potential to support actively Internet trading in medicines. On the available evidence, no active move to support on-line developments are detectable that go beyond making ordering more efficient and pricing information readily available.

It seems most likely that legislative changes at national and European level will have the largest impact on the future and viability of on-line pharmacies. For the time being, a kind of stalemate seems to have been reached. Following the Frankfurt judgment (9 November 2000), the link between *Apotheek van Wersch* – which differentiated DocMorris from other Internet providers by giving them the legitimacy of an association with a certified pharmacy – was severed, as the former officially agreed not to appeal and to cease trading to German customers (www.pharmazeutische-zeitung.de (accessed 21 November 2000)). This also disqualifies DocMorris from legitimate trade with medical insurance funds. As DocMorris continues to ignore the Frankfurt judgment, the Pharmacists' Association has applied to the court to impose fines on DocMorris (www.abda.de (accessed 5 January 2001))

In the longer term, the only real way forward may lie with EU legislation rather than national or federal judgments. The EU is currently working on e-commerce guidelines, which should take special features of medicine into account. However, Spain *et al.* (2000, p. 433) cite Rogers (1997) who stated:

The European Commission has acknowledged that any moves by the European Union to ban sales of drugs on the Internet is bound to have only limited effect.

Notably, a Bonn lawyer issued DocMorris with a certificate stating that selling medicines via the Internet was covered by these new guidelines (www.netdokter.de/topic/Internetapotheke/docmorris.htm). Also in Berlin and Hamburg, DocMorris won the argument that the restraining order is not compatible with EU guidelines (www.de.news.yahoo.com (accessed 4 January 2001)).

In the absence of World Health Organization (WHO) guidelines regulating online sales of prescription drugs a better way forward than litigation may be indicated by the US model, where the National Association of Boards of Pharmacy (NABP) introduced a voluntary certification programme for Internet pharmacies, which aims to ensure minimum standards of customer care and information (Spain *et al.*, 2000).

However, as long as national differences in legislation, value added tax rates and the regulation of medicine prices prevail, the introduction of cross-border competition through international Internet pharmacies introduces a strong element of unfair competition. This could be further exacerbated should a multiple chain of pharmacies with the resultant economies of scale and scope become involved and succeed in using the Internet as a market entry mode.

For the present it has been established that in the German context insurance companies are acting illegally if they advise their members to use foreign mail order suppliers of medicines (www.abda.de (accessed 9 November 2000)). This means that the retail pharmacy profession may have gained some time to develop its own strategic approach to the use of the Internet. As analysis of pharmacists and their professional bodies has shown (see Box 1 of Figure 1), the response to the challenge is still in its infancy. Nevertheless, aggregate developments of professional networks and portals, as well as expert systems are very promising and serve to translate much of the value added provided in the actual pharmacy shop into the virtual medium. This complements the range of excellent individual Web sites, which are translating the professional image and customer friendly service orientation of German pharmacies into a complementary Internet offering. However, it would be dangerous to overlook the marked reluctance of much of the profession to engage with the medium Internet at all. Erosion of margins, a high age profile among pharmacists and the pressures of self-employment, as well as a professional self-image, which sees business issues and skills as rather secondary to the core function as expert and advisor on medicines, may all conspire to leave many owners of SME pharmacies ill-equipped should a future DocMorris look-alike succeed in challenging the law and forging cut-price links with medical insurers and end consumers.

Notes

1. In the text these are referred to as AP and numbered, with the representatives of the Pharmacists' Association and Pharmacists' Chamber labelled PA and PC respectively.
2. Subheadings in the Findings section draw on Bickerton *et al.* (1988, p. 2).

References

- ABDA (1999), *Bundesvereinigung Deutscher Apothekerverbaende, Jahresbericht 98/99*, ABDA.
- ABA (2000), *ABDATE Wirtschaft*, January, available at: www.abda.de
- AWA (1999), *Aktuell Wirtschaftsdienst fuer Apotheker*, AWA, January.
- Balabanis, G. and Vassileiou, S. (1999), "Some attitudinal predictors of home-shopping through the Internet", *Journal of Marketing Management*, Vol. 15, pp. 361-85.
- Bickerton, P., Bickerton, M. and Simpson-Holley, K. (1998), *Cyberstrategy*, Butterworth Heinemann, Oxford.
- Pioch, E. and Schmidt, R.A. (2001), "German retail pharmacies – regulation, professional identity and commercial differentiation", *Marketing Intelligence & Planning*, Vol. 19 No. 3.
- Quelch, J.A. and Klein, L.R. (1996), "The Internet and international marketing", *Sloan Management Review*, Spring, pp. 60-75.
- Retail Intelligence (1999), *Consumer Goods Europe, No. 436*, Retail Intelligence, Dublin, March.
- Schmidt, R.A. and Pioch, E. (2001), "Ten years after: the impact of German unification on retail pharmacies", *International Journal of Retail & Distribution Management*, Vol. 29 No. 5, pp. 247-58.
- Spain, J.W., Siegel, C.F. and Ramsey, R.P. (2000), "Selling drugs online: distribution-related legal/regulatory issues", *International Marketing Review*, Vol. 18 No. 4, pp. 432-49.
- Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research. Grounded Theory Procedures and Techniques*, Sage, London
- Strauss, A. and Corbin, J. (1994), "Grounded theory methodology, an overview", in Denzin, N. and Lincoln, Y. (Eds), *Handbook of Qualitative Research*, Sage, London .
- Volksbanken Raiffeisenbanken (1999), "Apotheken – Auf einen Blick", *Branchen Special*, No. 55, p. 5.