

# Wholesale & Retail

## LEADERSHIP CHAIR



*"Collaboration opens the window  
to a world of opportunities."*

Project 2014/04

E- Business Developments and Skills  
Requirements in the Retail Sector

Prepared by:

Dr Udo Klaiber (Lead Researcher)

Mr Terence Hermanus

APPLIED RESEARCH  
LEADERSHIP DEVELOPMENT  
SERVICE TO RETAIL COMMUNITY

Project 2013/04

## **E- Business Developments and Skills Requirements in the Retail Sector**

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## **EXECUTIVE SUMMARY**

The study analyses influences of IT developments on retail businesses and the resulting skills requirements of employees in that sector.

The underlying research process consists of three steps. First, a literature review has been conducted. Second, ten interviews with international experts were carried out through applying the Delphi technique. Third, five international executives, namely, scientists with specialisation in retailing, were questioned in depth.

It has been found that on a global level the strong increase in e-commerce can be expected to continue for another five years at least. The developing countries already began to replace the industrialised countries as the main drivers of growth. The use of mobile technologies also shows a solid upwards trend, which can be observed in all countries of economic relevance.

The impact generated by innovations in IT is not limited to the sales function but has a much broader scope. Therefore, under the topic of e-business, developments in the various corporate functions are examined.

In distribution channel integration becomes standard. Individualised communication via innovative communication technologies is commonly achieved and leads to improvements in effectiveness. Hence obtaining and handling of (potential) customers' data is crucial. Privacy and data security issues are considered important, but until now only by a part of the audience. Excellence in logistics and the application of innovative forms of payments are important determinants of retailers' success.

All these developments lead to a growing need for employees who at the same time have a profound knowledge in social sciences combined with expertise in quantitative subjects. It is already difficult to hire such professionals. That makes training and qualification of employees extremely important for businesses in retail.

# **CHAPTER 1**

## **INTRODUCTION**

The rise of information technology already has a long history. Particularly the internet has contributed a lot to a change in people's behaviour patterns. Private life is hereby affected as much as the corporate setting. Online tools and technologies are supporting business processes as much as private communication, consumption and leisure. Hardware developments such as smartphones or tablets opened access to innovative services like twitter, skype, facebook, whatsapp, google and many others.

Often it is no longer possible to draw a clear line between usage of information technology in private and the business living environment. Hence online activities nowadays are common in all parts of our lives. The extensive use of modern communication technology contributes to a literal shrinking of geographical distances and to a soaring pace in informational exchange.

More information is made available in less time over larger distances. This is the challenge in today's business. The future survival of companies largely depends on their ability to cope with these transformations.

The choice of technological solutions is vast, hence the advantage and vitality of impact on business performance seems beyond question (Caldwell et al., 2013:692) but the stakes are high, so is complexity, and the prediction of return on investment is doubtful (Pilinkiene, Kurschus & Auskalnyte, 2013:80).

### **INFORMATION TECHNOLOGY, CUSTOMER BEHAVIOUR AND RETAILING**

The range of developments in information technology in the last decades has been ample. Miniaturization of digital electronics, accelerated growth of processing speed, falling prices and software which becomes ever easier to use can be mentioned as examples of the megatrends so far. The internet and the spread of complementary networking technologies allow people to display entirely new behaviours. This refers to the procurement of information, the ways of communication and the acquisition of products and services by organization and individuals.

Multitasking, for instance, has become a widespread phenomenon concerning the use of various communication devices simultaneously (not only) among the younger generations (Pea et al., 2012:327). This, for instance, must have consequences for the way recipients are addressed. It can be assumed that the level of attention is fading and purely informational messages will lose impact. Therefore the landscape in media communication is changing and a combination of informational and entertaining content is becoming more and more widespread (Bernhard, 2012:24).

Electronic support and later web applications in institutional purchasing have a long history (Zsidisin, Melnyk & Ragatz, 2005:3402; Thompson, Mitchell & Knox, 1998:699). Major changes in consumers' buying behaviour began to occur after the millennium. The initially weak plant has acquired strength continuously and, while retail sales nowadays show rather lateral movements (Eurostat 2014), the data below (see Table 1) demonstrates the strong growth of online retail sales in Europe.

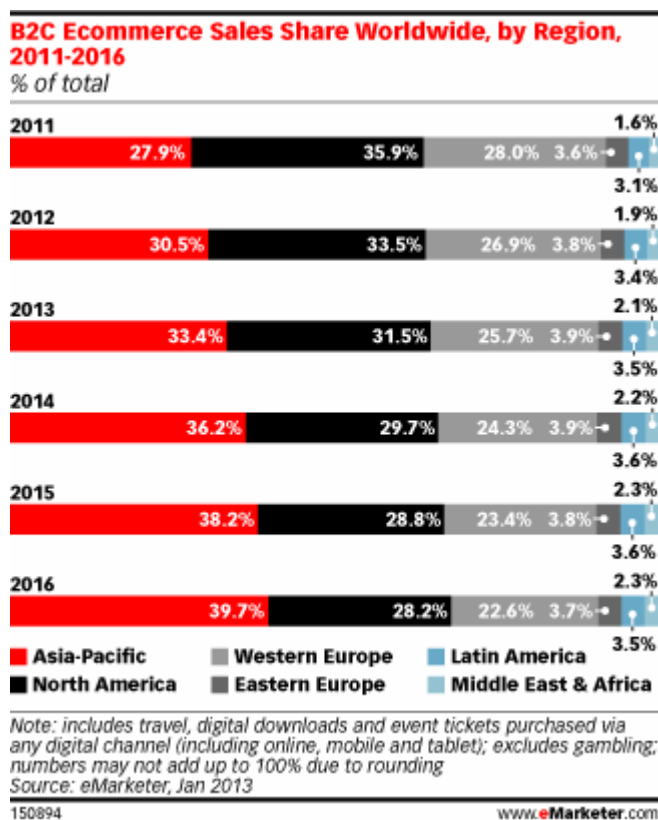
Table 1: Online Retail Sales in Europe

Online Retail Sales	Online Sales (£ bn) 2013	Growth 2013	Online Sales (£ bn) 2014	Growth 2014
UK	£38.83	16.8%	£44.97	15.8%
Germany	£28.98	39.2%	£35.36	22.0%
France	£22.65	12.0%	£26.38	16.5%
Spain	£5.75	22.5%	£6.87	19.6%
Italy	£4.48	18.6%	£5.33	19.0%
Netherlands	£4.48	11.6%	£5.09	13.5%
Sweden	£3.13	15.9%	£3.61	15.5%
Poland	£2.92	24.0%	£3.57	22.6%
<b>Europe</b>	<b>£111.21</b>	<b>21.1%</b>	<b>£131.18</b>	<b>18.1%</b>

(Source: Centre for Retail Research, 2014)

On a global level the situation in e-commerce does not seem to differ a lot. It can be observed that especially Asia is expected to pick up in online sales (see Figure 1). North-America and Western Europe rather seem headed for some consolidation on a high level. The rest of the world, namely, Africa, somehow looks as though it is being left behind (Marketingland, 2014). When the data below is being interpreted, it is important to keep in mind that forecast developments are based on an average increase of 20% annually on a worldwide basis (statista 2014a) until 2017.

Figure 1: B2C E-Commerce Sales Shares by Region



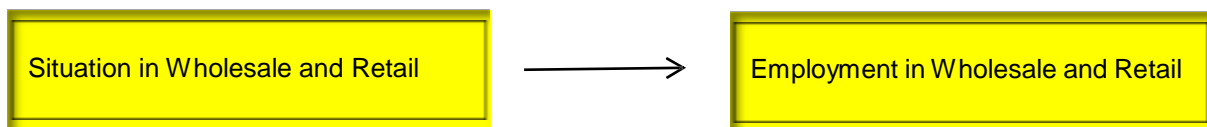
(Source: eMarketer 2013)

## PROJECT DESCRIPTION

As a consequence of the developments described above it seems obvious that the retail and wholesale sector is confronted with substantial changes, which are underway already but can be expected to continue for the next five to ten years. Against that background the Wholesale and Retail Leadership Chair (WRLC) of CPU, Cape Town in collaboration with the Wholesale and Retail Sector Education and Training Authority (W&RSETA) has laid on a research project. In the actual phase one of that undertaking the focus is on gaining insight into the actual situation in wholesale and retail and consequently to be able to make well based forecasts for the upcoming years.

First, the trade sector in general is the target of the study. (The term *trade* is being used as a general term in this paper that includes retailers' and wholesalers' business.) Second, the employment situation in the wholesale and retail sectors is of particular interest (see Figure 2). That leads us to the objectives of the research project.

Figure 2: General Project Description



### **Research objectives**

First of all, it is of great importance to address the topic of e-business. For the success of the research it is crucial to shed some light on the expression *e-business* and to understand the underlying complexity. Almost each time one opens a new textbook on that issue one can find a different perspective of what is to be understood by the term *e-business*. Soon it becomes clear that the definition can be very broad and include almost all different kinds of business activities as long as they are somehow supported electronically.

Investigating literature shows that it can be helpful for the outcomes of the study to apply a rather focused and less blurred definition of e-business. Therefore this issue will be discussed a bit more in detail under 2.2., in order to find a definition of e-business which satisfies the needs of our research project and seems suitable for the identification of the most relevant developments which have an impact on retailing.

Besides finding an operational definition of e-business the study has other objectives too (see Table 2). The first is to identify and analyse from an intersectoral perspective what is going on in e-business today and what can be expected for the future. This perspective includes technical and technological innovations as well as their influences on the behaviour of individuals and organizations leading to changes in the economic environment. If possible region- or country-specific situations and trends are to be identified and reflected. Secondly, then, in a more focused approach, the retailing sector is to be studied. Based on the findings of previous steps in that study the major development tendencies in retailing are considered and their impacts are to be analysed. At the centre of interest at this level lies the question of how employees' qualifications are being affected and to what extent the scheme of skills required is changing.

Table 2: Research Objectives

- Defining e-business
- Description of e-business at present
- Forecasting future developments in e-business
- Research focus retailing
- Employment effects

### **Research Methodology**

The methodology of the research includes three major steps (see Table 3) which are described in the following section.

Table 3: Research Methodology

- Literature Review
- Delphi technique (= two-step interviewing process with e-business experts)
- In-depth interviews with retail experts

### ***Literature review***

A comprehensive literature review has been conducted. As a first step a search in google scholar has been realized in order to identify all articles dealing with e-business issues which were published since 2010. That led to the identification of a substantial number of scientific publications dealing with that topic. To extend the number of articles identified, a list of all journals appearing had to be completed and all editions since 2010 have been revised trying to find additional articles. By using authors' names and the references of articles the search for scientific publications has been completed, this time focusing on scientific books, anthologies and textbooks.

E-usiness developments are not only of high importance in the academic area. They play an important role in the practical life of companies and people as well. Therefore it was important to widen the scope and to include the most outstanding business/economic newspapers or magazines globally, internationally known retail magazines from various countries and the most recognized IT magazines as well. Here it seemed sufficient to regard the last two years' editions, as it has been assumed that anything of importance published

longer ago would most likely have caught the interest of the scientific community meanwhile and so would have led to an article in a scientific journal.

Additionally the internet was searched concentrating on websites (i.e. igd website, platt retail institute), blogs and discussion groups in order to see whether any new developments in e-business are being mentioned.

The material found was analysed and all focal results found entry into this working paper.

### **1.2.2.2 Delphi technique**

The very latest developments may probably not have found their way into any kind of publication. To ensure that no relevant trend or development could be overlooked, international experts, opinion leaders and scientists were included as sources of information. The sample of experts interviewed is described in Table 4.

Table 4: Sample of Interviewees in Delphi

- 3 IT experts from different countries
- 3 e-business experts from different countries
- 2 experts in management and organization from different countries
- 2 HR experts from different countries

The countries from where interviewed experts originate are Germany, Switzerland, Austria, UK, Ireland, China, India, South Africa.

The interviewees represent companies, trade/retail and IT/e-business associations, research institutions, government think tanks, universities.

The personal opinions and convictions of these professionals were researched in detail. Delphi method is a well-proven technique for such research objectives and was therefore used in this study.

In a first round with 10 persons, in-depth interviews have been conducted. Because of the high complexity of the topic the interview situation was always face-to-face. Some of the interviews were conducted around Cebit, one of the world leading IT fairs. Some experts were visiting the DHBW on behalf of research or teaching assignments. One journey to the UK/Ireland, one to Austria and Switzerland and one to Berlin were made.

In that phase the main objective lay in the identification of relevant trends and developments in the field of e-business. The basis of these interviews was a guideline consisting of open questions (see Table 5) including the most important topics.

Table 5: Interviewing Guideline Delphi Round 1

- How do the experts perceive e-business?
- Which innovations in e-business can be identified?
- Which developments can be observed?
- How important are they?
- How persistent will they be?
- What impact do they have?
- Which consequences must be expected?
- How dynamic are they?
- Which future developments are expected?
- How about their probability?
- On what do these developments depend?
- Which sectors will be affected the most?
- Are there different scenarios?
- Is there any geographical bias?
- Which sources of information are being used by the experts?
- How can they be ranked according to their importance?
- Which readings or other sources of information do the experts recommend?

All interviews were carried out by the researcher personally to guarantee sufficient expertise in the subject allowing for the professional conduct of the interviews. This implies a high level of flexibility and deviation from the interview guideline whenever an expert was showing relevant knowledge or insight into related areas or going into a great deal of depth in a particular matter.

After all the interviews were finished, the responses have been evaluated and the findings are shown further down. The results will have been interpreted and their relevance and the consequences have been discussed in a written report.

Particular respect has been paid to a comparison of the major outcomes of the literature analysis and the expert interviews. This led to the identification of fields, which can be regarded as common ground, where consensus is overwhelming. On the other hand, areas were detected where the convictions are rather varied.

These spheres which are being perceived differently have been at the centre of a second round of interviews. Here all experts who have been questioned in the first round have been

confronted with the findings of the first round of interviews and they have been offered an opportunity to comment on views or opinions contradictory to their convictions. That permitted a further and deeper understanding of the underlying assumptions and the experts' mindsets, opening up a path for an in-depth analysis. All results have been documented in this report.

#### **1.2.2.3. *In-depth interviews with retail experts***

So far the scope has been general, in order to avoid excluding some specific tendencies at an early phase of the study. But as at the stage reached now a good and comprehensive understanding of present and future developments has been gained, the next step was to research the relevance for the retail sector and to produce insights into the skills requirements in that industry.

Therefore in a final round of interviews 5 experts were questioned, 2 of them scientists with a long research background in retailing (e.g. full professors holding retail chairs at universities) and 3 senior executives of large retailers. Like the Delphi interviews, they have been conducted with international experts in Europe.

The interviews rather had the character of a discussion. Every major result of the literature analysis and the Delphi was formulated as a hypothesis and consequently used as a basis for the development of questions. One after the other they have been presented to the interviewees and the specific consequences for the retailing industry plus the relevant skills requirements discussed. As before in the Delphi, all interviewing was done by the researcher in order to guarantee that all important comments will definitely be taken into account.

Consequently the outcome of the research is this working paper consisting of three major parts (see Table 6). In the first part the results of the literature analysis will be presented, part two consists of the Delphi's findings and the third part explains all consequences for the retail sector and the resulting effects on skills requirements in that industry as appraised by the trade experts in the final round of interviews.

Table 6: Outcomes of Research

- Literature Review
- Delphi Analysis
- In-depth interviews

#### 1.2.2.4. Results of the literature review

Electronic support has become crucial for practically all kinds of business organizations. From a functional viewpoint it is evident that electronic devices or tools are contributing to an improved performance in all departments of a company (Macharzina & Wolf, 2012:489). This has led to the rise of e-business as a new era in business management.

As the developments in this field are very dynamic, having a huge impact on the whole business world, it seems highly relevant to investigate consequences for corporations.

Herein lies the motivation of CPUT, namely, its recently founded WRLC to conduct empirical research on e-business focusing on the repercussions in the retail sector.

### SITUATIONAL BACKGROUND

While the growth in retail turnover during the last five years has been rather moderate on a global level (statista 2014b), the dynamics in online trading are huge (annual growth of 20% since 2011) and even bigger in mobile commerce (see Figure 3). The forecast is more than plus 500% from 2012 until 2020, retail turnover in Europe (Heinemann, 2014:3). Of course these developments have an enormous impact on the whole landscape of retailing.

With Neckermann and Quelle some of Germany's most traditional mail order companies went out of business. Karstadt, a big and well known German operator of department stores, was bankrupt in 2009 after a row of dire years, and taken over by financial investor Berggruen in 2010 and in deep trouble still (DWN 2014). Online retailers like amazon (Süddeutsche Zeitung, 2014) or zalando (Berliner Morgenpost, 2014) show impressive growth records.

But for consumers and customers the option is not online or offline. Apparently people (and organizations) like to combine different channels (Accenture, 2010). There are substantial groups who like to obtain information online and buy offline or vice versa. Consequently there are not only offline companies successfully developing their online activities like the German mail order giant Otto (Spiegel Online, 2014a) but there are also online retailers like the French vertbaudet opening brick and mortar shops (facebook page vertbaudet 2014).

Figure 3: The Situation in Retailing



## DEFINITIONS OF E-BUSINESS AND LIMITATIONS OF THE PROJECT

Even only considering recent publications there is a broad range of works dealing with the issue of e-business. In the various contributions it appears that different authors are far from a common understanding. Therefore it makes sense to drop a few lines about what e-business is and which issues are being dealt with.

There are various definitions to be found which focus on the process aspect.

“Electronic business is the initiation, acknowledgement and execution of electronic business processes...” (Meier & Stormer, 2012:2). Others rather emphasize the network facet (Zhang, 2013:238). Nowadays most scholars differentiate clearly between e-commerce and e-business (e.g. Meier & Stormer, 2012:2; ECDL, 2011:3), which was not always common ground (Burns, Marshall & Barnett, 2002:9).

Most authors agree concerning the targeting of e-business and mention transactions or, more precisely, business processes (Jelassi & Enders, 2008:4; Chen, 2004:3; Papazoglou & Ribbers, 2005:2), which are supported or made possible by electronic means through the use of internet technology. Concerning the relevant actors the scope has been widened continuously from organizations (B2B) to consumers (B2C, C2B, C2C) and administration (A2B, A2C, A2A, B2A, C2A). Then employees came into the game leading to the ABCE-Matrix (see Table 7) (Bächle, Lehmann 2010, 7).

Table 7: ABCE-Matrix

	<b>Administration</b>	<b>Business</b>	<b>Consumer</b>	<b>Employee</b>
<b>Administration</b>	A2A	A2B	A2C	A2E
<b>Business</b>	B2A	B2B	B2C	B2E
<b>Consumer</b>	C2A	C2B	C2C	C2E
<b>Employee</b>	E2A	E2B	E2C	E2E

(Source: Bächle, Lehmann 2010, 7)

The most recent publications include intra-business and intra-administration perspectives (Wirtz, 2013:23).

The focus of e-business can be on institutions or on consumers. That leads to the distinction of various activities forming parts of e-business (Wirtz, 2013:30):

e-commerce: Directly connected with buying or selling of products and services to consumers or institutions.

e-education: Transfer of educational services to consumers or institutions.

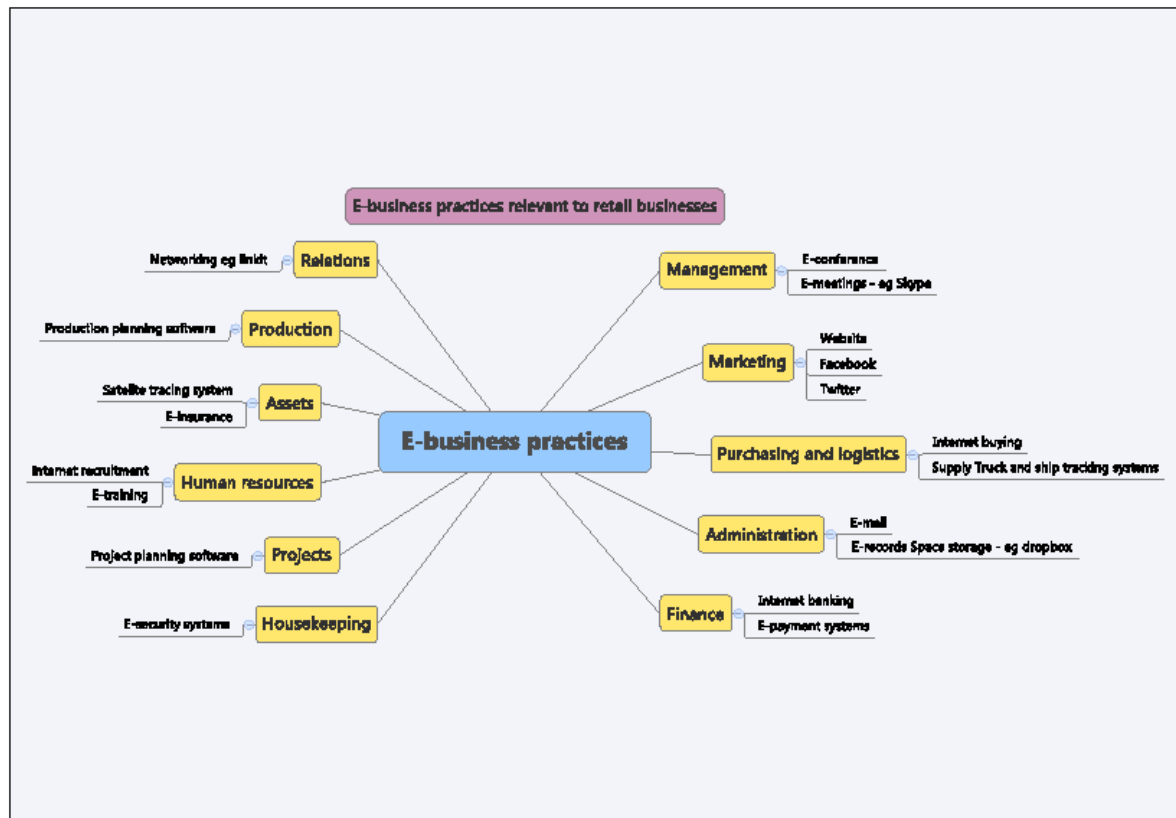
e-communication: Providing communication platforms to consumers or institutions

e-information, e-entertainment: Offering informational or entertaining content to consumers

e-collaboration: Managing or supporting of inter- or intra-organizational collaborative processes

A very ample and comprehensive view of the different e-business practices is the following (see Figure 4):

Figure 4: e-business practices



(Source: Venter, 2014)

Another pragmatic approach to the differentiation of fields in e-business could be related closer to corporate functions (see Table 8) (Meier & Stormer, 2012:26). That allows for the discussion of developments in the various functional areas of business organizations and relates consequences pretty close to the activities to be considered.

Table 8: Fields of e-business

<b>Strategic planning and cooperation</b>
Development of products and services
Innovation, technology and mobile solutions e-
marketing, e-commerce
Relationship management
<b>Operative process execution</b>
e-procurement
e-distribution, logistics
e-payment
<b>Supporting processes</b>
Human resource management
Management and organization
Controlling
(Cyber-) security

(Source: Meier & Stormer, 2012)

Obviously the definition of e-business can be very broad including practically all relevant activities for a company as long as they are performed or at least supported electronically. The result then is the appearance of a whole range of networks (e.g. service, knowledge, people, intelligence, machines) which form a globally understandable e-business environment (Dorloff & Kajan, 2012:14).

Currently developments of a particular dynamic can be observed in the fields of mobile devices, social (net-) applications and location based services (Heinemann, 2014:6).

The focus in our study, however, is on all kinds of processes which are related (somehow) to seller-buyer interaction (see Figure 5). Customer relationship management, enterprise resource planning and supplier relationship management, which at present are all supported electronically, show the potential for integration (Stefanou, 2013:148). We have a look at all major developments that take place in the field of seller-buyer relationships, trying to

understand what is happening here and what is going to happen in the future. We discuss the impact of these developments especially for the retail business and show the consequences on the skills requirements of employees in that sector.

Figure 5: Research Focus Seller-Buyer Interaction



## **CHAPTER 2**

### **FINDINGS BASED ON LITERATURE REVIEW**

The dynamics in e-business are huge. There are many new technologies being applied, that allow for many new activities and processes. Even with the focus of this study being the retail sector, developments in related sectors like manufacturing and logistics must not be overlooked, as they can have a strong impact on retailing, even if they stem from other industries originally.

#### **2.1. DEVELOPMENTS IN E-BUSINESS**

The e-business is soaring in all kinds of industries and the rapid pace of technological innovation has touched on almost all areas of commercial activities globally, causing the transformation of businesses especially retailers (Platt Retail Institute Report, 2012:3). It contributed to changing the shopping habits of consumers within the industry and the effect on b2c (Business to Consumer) e-commerce has been profound (Jones Lang Lasalle, 2013:4).

The strong growth in online buying is expected to continue for the next years (see Table 9). It can be observed that the biggest growth rates are predicted for emerging markets (e.g. China, India, Indonesia, Mexico, Brazil, Russia). By contrast, the expected growth rates in developed countries are rather moderate (Jones Lang Lasalle, 2013:19).

These trends represent many business opportunities for enterprises. However, the implementation of an e-business strategy also presents companies with a certain level of risk and a few challenges. It requires staff to possess a whole new set of skills and technical know-how which many businesses might not have. Also the implementation of an e-business strategy comes with a cost and it often requires setting up a specialist department to initiate and manage it.

Table 9: Digital Buyers Worldwide (Forecast)

<b>Digital Buyers Worldwide, by Country, 2011-2016</b>						
<i>millions</i>						
	2011	2012	2013	2014	2015	2016
<b>Asia-Pacific</b>	<b>334.8</b>	<b>391.1</b>	<b>457.6</b>	<b>523.1</b>	<b>591.7</b>	<b>653.5</b>
—China	178.4	219.8	270.9	322.1	374.9	423.4
—Japan	70.2	73.3	75.6	77.0	78.2	79.2
—India	14.5	19.2	24.6	30.0	36.2	41.8
—South Korea	22.2	23.3	24.4	25.4	26.3	26.9
—Australia	9.8	10.2	10.6	10.9	11.2	11.5
—Indonesia	2.0	3.1	4.6	5.9	7.4	8.7
—Other	37.6	42.2	47.0	51.8	57.3	62.1
<b>Western Europe</b>	<b>156.8</b>	<b>168.6</b>	<b>178.8</b>	<b>186.1</b>	<b>192.1</b>	<b>197.3</b>
—Germany	38.2	41.2	43.3	44.4	45.2	45.9
—UK	33.0	34.8	36.5	37.5	38.2	38.9
—France	24.5	26.5	28.1	29.2	29.8	30.4
—Spain	13.4	14.5	15.9	17.2	18.6	19.5
—Italy	10.5	11.7	13.0	14.2	15.4	16.6
—Netherlands	7.3	7.8	8.1	8.3	8.5	8.6
—Sweden	4.1	4.3	4.5	4.6	4.7	4.8
—Denmark	2.5	2.7	2.9	3.0	3.0	3.1
—Finland	2.3	2.4	2.5	2.6	2.7	2.8
—Norway	2.2	2.3	2.4	2.5	2.6	2.7
—Other	18.8	20.3	21.6	22.6	23.4	24.1
<b>North America</b>	<b>156.7</b>	<b>164.2</b>	<b>171.3</b>	<b>178.8</b>	<b>185.8</b>	<b>192.6</b>
—US	143.4	149.8	156.1	162.6	168.7	175.0
—Canada	13.3	14.4	15.2	16.2	17.1	17.6
<b>Eastern Europe</b>	<b>63.9</b>	<b>75.2</b>	<b>85.2</b>	<b>95.2</b>	<b>102.5</b>	<b>107.4</b>
—Russia	19.6	23.1	26.2	29.3	31.4	32.7
—Other	44.3	52.1	59.0	65.9	71.1	74.7
<b>Latin America</b>	<b>50.3</b>	<b>63.6</b>	<b>73.0</b>	<b>82.5</b>	<b>90.6</b>	<b>97.5</b>
—Brazil	19.1	23.7	26.7	29.7	31.9	33.9
—Argentina	6.4	8.1	9.2	10.4	11.3	11.8
—Mexico	5.8	7.2	8.4	9.6	10.9	12.1
—Other	19.1	24.7	28.8	32.8	36.5	39.7
<b>Middle East &amp; Africa</b>	<b>30.0</b>	<b>40.9</b>	<b>49.8</b>	<b>58.6</b>	<b>65.8</b>	<b>73.1</b>
<b>Worldwide</b>	<b>792.6</b>	<b>903.6</b>	<b>1,015.8</b>	<b>1,124.3</b>	<b>1,228.5</b>	<b>1,321.4</b>
<i>Note: ages 14+; internet users who have made at least one purchase via any digital channel within the past year, including online, mobile and tablet purchases; numbers may not add up to total due to rounding</i>						
<i>Source: eMarketer, Jan 2013</i>						
150023	www.eMarketer.com					

(Source: eMarketer, 2013)

Businesses are often faced with the problem of what technology to invest in and how much to invest in it. The perception of risk plays an important role in that setting. In a study among SMEs in the UK the companies viewed “security-related issues as their greatest threat, followed by viruses and worms, and credit card fraud” (Grant et al., 2014:107). Therefore it does not seem astonishing that small medium enterprises (SMEs) adopted a “watching brief” instead of implementing e-business strategies quickly (Caldwell et al., 2013:688), obviously to avoid being trapped in first-mover disadvantages.

As common advantages of e-business implementation (see Figure 6) increased sales, improved customer service, improvements in distribution and cost reduction are named

(Abid, Rahim & Scheepers, 2011:2), but not unanimously (e.g. Tan et al., 2010:28 present evidence for increased cost). Retailers aim at the achievement of operational efficiencies and they implement e-business strategies as a response to changing consumer behaviour (Jones Lang Lasalle, 2013:14). But the range of benefits appears to be even broader (Lin, 2008:61). Obviously e-business is empowering companies to accomplish their goals through the active use of the internet. This does not only mean building a greater online presence, enhancing company image and targeting markets, but it also allows them to simplify payment systems and engage directly with customers using an online medium. Most can also significantly develop their internal efficiencies (Terzi, 2011:746) in collective working processes by applying e-business practices; periodic meetings can be made without travelling long distances, calendars can be shared, organizational efficiency can be improved as well as their competitive advantage (Janita & Chong, 2013:573).

Retailers face a large number of necessities including individualization, use of mobile devices, cost containment, flexibility, speed in logistics and security, to name only a few. So e-business has become a shopping channel away from the normal brick and mortar stores forcing retailers to meet consumers on their terms. It is fuelling the drive into the direction of technological innovation. Regardless of these challenges and opportunities, retailers as an industry have a tendency to under-invest in technology (Platt Retail Institute Report, 2012:8).

Figure 6: Opportunities and Difficulties resulting from e-business

+	-
Sales Increase Better Customer Service Improved Distribution Reduced Costs	Investment Decision Technology Selection Staff Development

It has been shown that the main determinants for the adoption of e-business are the readiness of the organization and external influences (Nikolaeva, 2006:23). But “surprisingly, retailers’ e-business adoption did not seem to be mainly motivated by high growth, market potential or expectations” (Nikolaeva, 2006:23). Therefore one of the main reasons why several retail companies adopted e-business practices was in response to the activities of other enterprises.

The technology (ICT infrastructure), the organization (human capital) and the environment (public institutions, macro economy) have a huge reciprocal influence on the processes required to implement e-business. On a national level e-business development and e-governance development seem to be intertwined (Srivastava & Teo, 2010:278). Thus governments can support and promote e-business via e-governance measures, but their willingness to do so seems to depend a lot on the development stage of e-business which has been reached in the private sector.

Internal factors, such as management attitudes, corporate strategy and technological strength, combined with pressure from customers and suppliers, make for a good part of companies' determination and efforts to make advances in the adoption of e-business (Li & Xie, 2012:30). For a successful e-business implementation in companies, process modelling can be helpful (Iizuka, Iizuka & Suematsu, 2013:826). This can eventually lead to results that require reconsidering management styles in an organization and to changes in strategy, management and marketing of a retail business (Bordonaba-Juste, Lucia-Palacios & Polo-Redondo, 2012:532).

The role of e-business in foreign trade is important (Zhang, 2013:237) as it helps to reduce risk, to increase knowledge, to provide real time information, to reduce asymmetric information and therefore increase enterprises' efficiency and their international competitiveness (see Table 10). For SMEs e-business can be helpful in their efforts to go global (Moertini, 2012:15). From a macroeconomic transaction-cost perspective e-business can boost international trade as it lowers the cost of collecting information substantially (Terzi, 2013:748).

Table 10: e-business effects in International Business

- Reduce Risk
- Increase Knowledge
- Balance Information
- Improve Efficiency
- Secure International Competitiveness

The diffusion of e-business is affecting practically all kinds of businesses, but the repercussions on trade and retailing are significant (Scheer, 2013:14). Even some small businesses in retail have understood the opportunities that arise (Scharrenbroch, 2013:15). That leads to a range of challenges, which these companies will have to cope with.

Obviously different levels and functions of the enterprises are affected. Consequently the functional approach to e-business shown above (see 2.2.) is used for structuring, as it permits concentrating on the three core aspects: strategic, operative and supportive.

### **2.1.1. Strategic planning and cooperation**

It is evident that implementing e-business in a company has to be regarded as a strategic goal. As argued above (see 2.3.1) e-business presents interesting opportunities for an enterprise, but it does not seem very likely that they can all be achieved in the short term. It is a prerequisite to do a decent situation analysis taking into account the internal company situation and the external environment of the organization. Subsequently the right match between what is available and what is achievable can be identified and a strategy can be formulated. Naturally this has to be done for every single business individually.

Thus our aim at that stage of the study is to provide some insight into the academic and journalistic debate of what is possible for companies on a strategic level at present and what measures they could or should take, in relation to what companies are doing and experiencing, now.

Most companies are doing their business in a highly competitive environment. The definition of a successful e-business strategy therefore still has to obey the number one marketing principle: Focus on customers' requirements.

Obviously these can vary a lot depending on the specific target group (see Table 2 ABCE-Matrix), but also on the characteristics (political, economic, socio-cultural, technological, environmental, legal) of the specific environment where they are located (Sander, 2004:303; Homburg & Krohmer, 2006:471). Taking all these individual wishes and needs into account leads to individualization as a possible strategy nexus (see Table 11).

Table 11: Individualization as a Strategy

- Use of Modern Communication Techniques
- Addressing Customer Individually
- Interacting on a Permanent Basis
- Learn about Customer Needs
- Offering Individual Solutions

In order to apply this strategy companies are using all modern technology in order to address each (potential) customer individually, applying interactive technology (Varadarajan et al., 2010:97). That makes a close and permanent interaction inevitable and this is how retailers are trying to identify the technology, which is most suitable to satisfy the consumers' requirements (Ono et al., 2012:170), which means more and more to entertain them (Pantano & Naccarato, 2010:200). Particularly in retailing the merge of shopping and entertaining has become a trend during the last few years (Rigby, 2011:67).

But the goal must also be to build up trust (Kollmann, 2013:172) so that personal, eventually private data and information become accessible (see Figure 7). Only under these circumstances a personalized one-to-one marketing strategy (Niculescu, Payne & Krishnan, 2013:52; Fowler, Pitta & Leventhal, 2013:509) becomes feasible and successful.

Figure 7: The Role of Trust



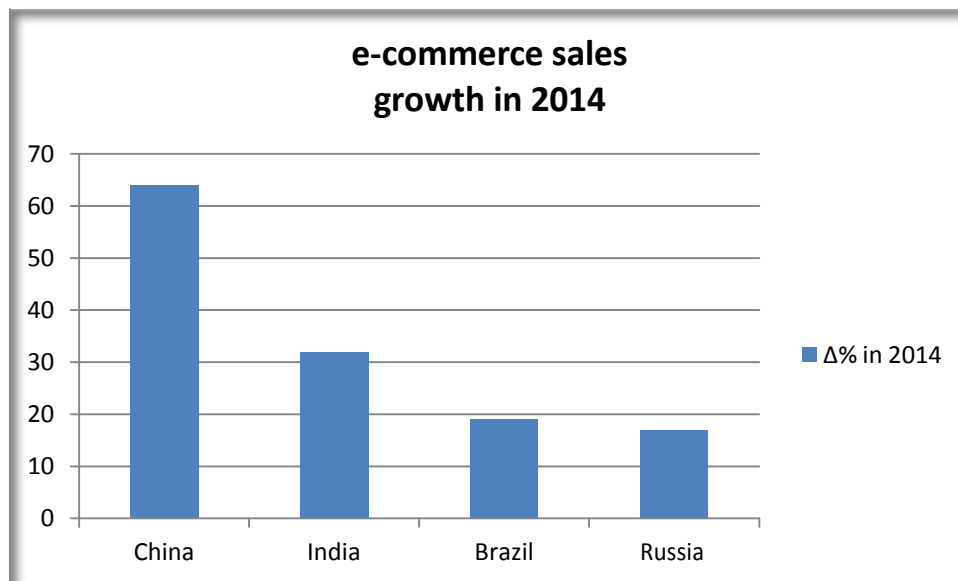
As a result of the advances in modern IT such strategies can be technologically realized even in mass markets on a global level. The difficulty lies in achieving acceptance.

The technological innovation drives strategies in retailing. Thus finding the right strategy and translating it into the right business model (Sorescu et al., 2011:S4) in time can be regarded as the key to success.

There are numerous technological developments across all sectors and industries (Pantano, 2010:171), and retailing has certainly benefitted from many of these advancements. They have been used to improve the overall shopping experience, to build relationships or for the redefinition of retailers' marketing strategy (Pantano & Naccarato, 2010:201).

The strongest growth in e-commerce sales can be observed in developing countries (see Figure 8).

Figure 8: e-commerce sales, growth in 2014



(Source: e-Marketer)

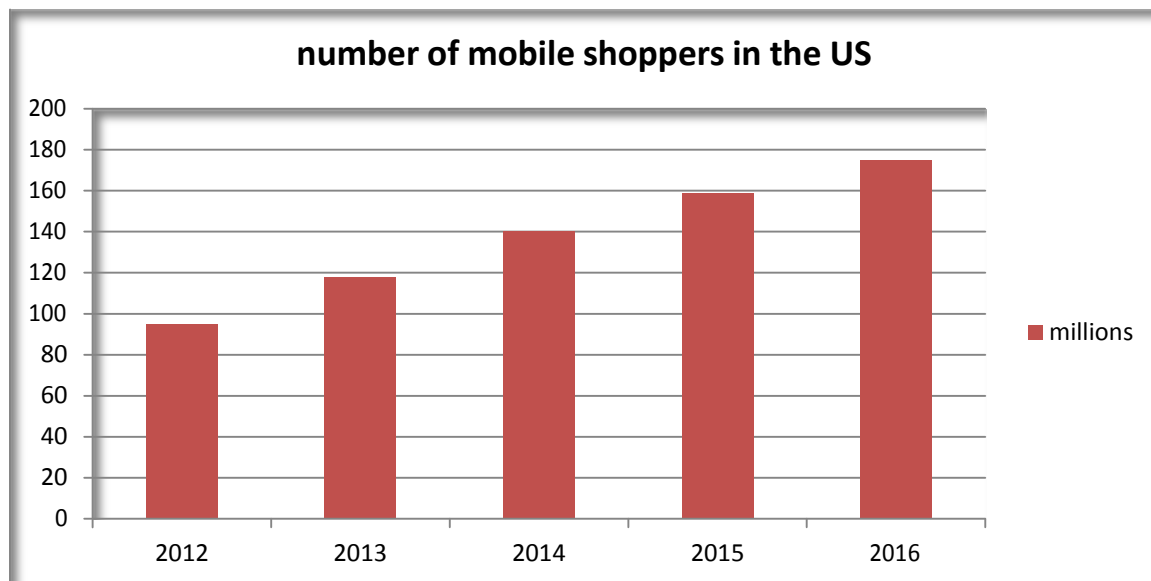
While in China Alibaba accounts for about 80% of e-commerce sales and therefore has a market position of similar strength to Amazon in the US and in European countries, it looks as though there will be quite a row for market share in India (Kazmin, 2014:13).

So far the mere size of markets makes for the attractiveness, therefore it might still take some time before South Africa will receive more attention from e-commerce giants.

One recent technological development within e-commerce is mobile shopping or m-commerce. It entails the use of a smartphone to identify deals, compare products and prices, and order while on the go. Consequently it can be observed that already more than 75% of internet connections are made from mobile devices (Boston Consulting Group, 2012a:4).

In many developed markets, such as the US and UK, online sales growth is being driven by an increasing number of shoppers using smart mobile phones (see Figure 9). In the US, for example, the number of mobile shoppers is predicted to rise from around 95 million in 2012 to 175 million by 2016 (Jones Lang Lasalle, 2013:5). Therefore a multichannel offering becomes essential for retailers (Boston Consulting Group, 2012a:11).

Figure 9: Mobile-commerce forecast



(Source: e-Marketer)

To elevate online shopping further, there has been a proliferation of mobile apps. “Mobile apps such as RedLaser, Google Shopper, and Amazon Remembers make it easier for consumers to research products, compare deals, and make purchases, as they see fit at any given moment” (Boston Consulting Group, 2012a:10). QR codes made Tesco South Korea’s number-one online supermarket.

It came with the introduction of virtual shops in subway stations, consisting of billboards that looked like store shelves. There the consumers could use mobile phones and scan the QR codes of products on display, buy them and have them delivered that very day (Boston Consulting Group, 2012b:9).

Multi-channel (omni-channel) and continuous access to various retail store formats (Bell, Gallino & Moreno, 2013:2) remains the focus of technology innovations within e-business and the retail sector globally (Heinemann, 2013a:22). It is a 24 hour service so the customer can deliberately choose when to use it. It can be provided (almost) everywhere and it offers potential not only for personalization but for individualization via location-based services as well. Using ibeacon technology these become available in-house with an unseen accuracy. So depending on where the customer is browsing in the shop additional information can be offered (Hui et al., 2013:14). Alternatively, that information can be handed over to neighbouring premises, so they will already know what the clients are looking for and direct them accordingly.

It looks like multi-channelling and, more specifically, omni-channelling is already imperative for retailers and the ones who are not participating will be gone soon (Wenig, 2014). In that context it doesn't matter whether they come from the traditional brick and mortar or from online shops, the component lacking will have to be amended.

As mobile devices are being used almost permanently by normally one single user, they become interesting for building and maintaining customer relationships. The importance and the potential of managing customer relations, in order to gain more insights into the client's mind-set and behaviour, had been recognized by marketers for a while. But to implement such a strategy in consumer markets turned out to be more difficult than in b2b, where it has a long tradition and is widely accepted. Portable devices could now be helpful in consumer markets in getting one foot into the door (Shankar et al., 2010:112). Some retailers already start to believe that their customers are literally in the shop constantly, as it seems easy to gain permanent access to them. But it is not enough only to provide information and to display the company offer, but also entertaining the customers (Pander, 2014) is gaining importance (Riedel, 2014) and can help in building loyalty and commitment (Pantano & Naccarato, 2010:202), thus stabilizing customer relations.

Multi-channelling can not only be a driver of loyalty but increase customers' spending. The aim should be to inspire the clients, which makes it necessary to understand how customers want to shop and to make finding of products easier based on personalisation, specific events missions and occasions. Providing recipes with ingredients that can be shopped online could be such an approach (Byfield-Green, 2014).

On the other hand, there is a risk if online advertising becomes too intense. In a study published recently (Fittkau & Maaß, 2014) it has been shown clearly that if advertising messages are repeated too often they are likely to cause resistance. In that particular study more than one third of the participants were showing signs of resistance, if targeted with the same or similar commercial too frequently.

Table 12: Mobile commerce

- good basis for individualization (single user)
- steadying of communication and interaction
- better insights into behaviour
- intensity should not be exaggerated
- facilitates word-of-mouth processes

In another study focusing on millennials and generation Y it can be observed that word-of-mouth definitely works and there is even more likelihood that positive comments are being posted or proliferated than negative ones (Mangold & Smith, 2012:144). That contradicts the common notion among marketers that dissatisfied customers are more communicative than satisfied ones.

Apps on mobile devices play an important role (see Table 12) in steadying the customer interaction, as consumer interest in all kinds of apps is rising on an international level (Accenture, 2014:7). As consumers obviously are willing to trade in privacy for convenience or entertainment provided through apps (Accenture, 2014:8), it does not come as a surprise that at least the large retailers are all heavily engaged in launching them. But the strategy to use apps as a vehicle to obtain consumer data is not without risk. If public opinion in the future should become more concerned about privacy issues, such a strategy could bear negative image effects.

Consumers like to chat and exchange their opinions and to talk about their experience (e.g. with products, services, companies), and the social media are providing a perfect platform for such activity. The trust building factor of word-of-mouth communication is strong (Weiber & Wolf, 2013:210) so companies should not ignore the arena of social commerce. Viral communication can spread information at an enormous velocity. The contents can of course be positive or negative. In the first case it represents a powerful communication instrument, which can be used for low cost. In the second case it can bear a significant risk for the images of companies. Therefore it is important to know what is happening in social networks and to be able to react quickly.

In a recent publication, as a result of electronic consumer buzz about products and brands, e-sentiment has been looked at (Shin et al., 2013:13). Obviously there is a significant impact of e-sentiment on consumers' buying decisions and subsequently on sales figures. Thus it looks strongly advisable for providers to analyse consumer buzz systematically and to take measures to try and influence it. Social commerce (see Table 13) is intending to achieve sales by making use of social media, web technologies, social interaction and user generated content. That makes it an innovative field of business activities where still a lot of questions remain unanswered (Huang & Benyoucef, 2013:258). But it definitely offers opportunities like cross-selling, trust-building and customer commitment for retailers and should therefore definitely be included in their strategies (Wolf & Reuter, 2013:860).

Table 13: Social commerce

- intensive use of social media and web technology
- relies on user-generated content
- word-of-mouth communication to build trust
- facilitates viral communication effects
- allows cross-selling
- may increase customer commitment

The strategy implementation is a lengthy process and can only lead to success if the right steps and measures are taken. This is when the operative level comes into the game. Hence options in process execution which enterprises can choose to make their strategic goals real are to be considered.

### **2.1.2. Operative process execution**

Communication activities definitely form an important part of measures in order to implement corporate strategies. The target groups are not only to be located outside the organization like suppliers and buyers but inside as well. To allow for a highly individualized customer communication it is necessary to make sure that all customer information is made accessible to sales and service staff. This is the moment for customer relationship management (CRM).

#### ***2.1.2.1 customer relationship management***

A CRM system can be defined as “a repository of customer information which contains all customer profiles” (Phan & Vogel, 2010:70). In addition to the traditional database roles, it has the capability of personalising needs of individual customers by differentiating products or services for each unique customer.

Online retailing encompasses a distancing phenomenon where the online shopper has no human contact with retail store staff. This is in contrast to the online shopper’s sub-conscious desire to engage with online stores that are more sociable and personal (Toufaily, Souiden & Ladhari, 2013:545), thereby allowing a form of communication which is already quite close to classic face-to-face communication – the silver bullet in selling.

So, bridging the gap between the online shopper and the online store becomes of utmost importance. To build trust and loyalty a relationship has to be built between the online shopper and the e-business. Customer retention is important in this process and simply attracting site traffic and attracting new customers is not a sustainable strategy (Durmus, Ulusu & Erdem, 2013:426). It has been revealed that the main factors that predict e-loyalty (loyalty in an online domain) of consumers are efficiency and 'contact' in the context of e-service recovery. Such e-recovery relates to issues attributed to an organization's likely response to services failures (Durmus, Ulusu & Erdem, 2013:422).

This suggests that efficiency in terms of service and resolving customer problems when they arise, in an online environment, is not very different to the retail environment. A brandnew study from Germany shows that service quality is extremely important to customers no matter whether they buy online or in a traditional store (Hitec, 2014a:10). However, it remains unclear how much they are prepared to pay for it (Hitec, 2014b:13).

Thus the dimensions of customer service, which are important for online retailers, include reliability, access, ease of navigation, efficiency, responsiveness, flexibility, assurance, security, aesthetics and personalization (Suryandari & Paswan, 2014:70). These are also important to brick and mortar retailers, but it seems possible that they may choose to focus on different dimensions (Ladhari, 2010:475). Building relationships around these dimensions requires access to data, as an in-depth understanding of the various online consumer segments is important, from an online marketing and a customer relationship strategy perspective.

Table 14: Customer Relationship Management

- Building lasting relationships
- Obtaining and analysing customer data
- Company-wide availability of customer data
- Targeting each customer individually
- Analysis of relations' developments

To build a CRM (see Table 14) strategy in an online environment, the online retailer needs access to data which provides information around the profiling of the online consumer in terms of shopping patterns and other primarily behavioural pictures. The classical segmentation criteria like demographics and psychographics have lost importance since

quite some time (Forsyth et al., 1999:8). Data is central to the success of CRM initiatives. Knowing who one's customers are and what they want makes a CRM strategy successful. Sourcing the data can take various forms and various information systems can be used for this purpose. Some of the notable technology options available to collect data consist of Salesforce ([www.salesforce.com](http://www.salesforce.com)), Genius ([www.genius.com](http://www.genius.com)) and Highrise ([www.highrise.com](http://www.highrise.com)). The tendency in e-commerce today is definitely rather away from segmentation to individualization – as already mentioned above.

The common objective here is to build up customer commitment and to turn discrete transactions into long lasting relations and the application of CRM becomes a business philosophy (Stefanou, 2013:145). But anyhow it has been found that for the customers' decision to participate in food retailers' loyalty programs, individual advantages are crucial and unrivalled (Gómez, Arranz & Cillán, 2012:498).

Nevertheless experience and information gained from the relationships provide the basis for the behaviour towards a customer (Klaiber, 1997:33). Besides the well-known set of traditional communication instruments (Meffert, 2000:712), internet-based technologies provide a range of new tools (Klaiber, 2010:324). They can be extremely helpful in communication, no matter whether the target group is located inside or outside of the organization. Blogging can add comprehensive measures to public relation activities primarily targeted at building trust. Social media may multiply contacts and hence provide huge reach within a short time (viral effects). Similar is the potential of instant messenger services nowadays commonly used on mobile devices. Targeted advertising (e.g. google ads) and search engine optimization (SEO) allow for an improved reach of the target groups and a reduction of wastage, thus leading to an increase of efficiency in communication.

#### **2.1.2.2 e-Procurement**

As another central element of e-business and e-commerce, e-procurement already plays an increasing role and it is recommended to companies to include it in their e-business strategy (CIPS, 2013:2). The concept has its origin in b2b, where it is often realised via e-procurement marketplaces (Kollmann, 2013:441). EDI (electronic data interchange) strategies are being included in that area as well. More generally there is a close link between e-procurement and e-marketplaces. The latter are not limited to b2b anymore, but can be found in consumer business nowadays, too (Kollmann, 2013:428 for a disambiguation of terms). The advantage of such e-marketplaces primarily results from their

ubiquity. But compared to traditional marketplaces they allow further benefits such as better transparency, higher efficiency, less capacity restriction (Kollmann, 2013:426).

So there is empirical evidence that enterprises benefit from participating in e-marketplaces (Chang & Wong, 2010:268). E-marketplaces are currently platforms for launching new products and services, while companies can also identify new market opportunities and are therefore able to pursue new customers. The major role of the e-marketplace is that it matches buyers and sellers and it keeps them in touch with each other, allowing for e-procurement.

It has been shown that e-procurement reduces paper work and time for queries and enhances the competitiveness of a business, while reducing costs (Hashim, Said & Idris, 2013:842). Communication becomes faster; it leads to an increase of efficiency and effectiveness levels in administrative processes, while enabling and accelerating the search for products to purchase. Consequently, it increases the productivity. However, implementing an e-procurement strategy is a challenging process (Hashim, Said & Idris, 2013:837). A study in the UK found that the largest productivity gains from e-procurement are generated in the manufacturing sector and in services such as wholesale and retailing (Boston Consulting Group, 2010:10).

The objective of e-procurement (see Table 15) goes far beyond the mere replacement of paper. It aims at achieving significant improvements in the efficiency of individual purchases, the administration of an organization and the markets' functioning (Alvarez-Rodriguez, Labra-Gayo & Ordoñez de Pablos, 2014:797). Therefore it can be considered a critical strategic factor for achieving improvements in the competitiveness of companies.

Table 15: e-procurement

- facilitates processes
- increases transparency
- communication speed is increased
- boosts productivity
- can improve competitiveness

### **2.1.2.3 gistics**

Another key factor in the realization of e-business strategies is represented by the logistics (see Table 16). It forms a crucial part of the supply chain (Coyle et al., 2013:36) and is therefore of central importance for the delivery of products or services and thus for the performance of a company (Graham, 2013:6). With the growth in e-commerce the attention to logistics is being boosted as well (Straube, Nagel & Rief, 2010:32). There is an increasing role of technology in any logistics system from functionality and control perspective to maintaining the supply chain agility (BME, BVL, 2012:22). There is empirical evidence that IT integration, management competencies and supply chain integration all have a strong positive effect on the supply chain agility (Ngai, Chau & Chan, 2011:245), which consequently enhances the performance of an enterprise (Ngai, Chau & Chan, 2011:246).

Table 16: e-logistics

- Supply chain integration
- Warehouse management
- Transport management
- Handling of cargo
- Demand-based delivery
- IT use for planning, executing and controlling

As the supply chain evolves, information and communication technology used in the supply chain evolves, too. In recent years there was a tremendous growth in supply chain management (SCM) issues, such as warehouse management, transportation management systems and supply chain planning and execution, and the future developments seem very much related to globalisation and environment (Prajogo & Sohal, 2013:1532). For the present it should be clear that the modern retail logistics system is heavily dependent on the use of information technology (Gustafsson et al., 2006:48). It is therefore evident that e-commerce is interwoven into all the elements within the logistics system from order placement, order processing, order picking to inventory systems and order delivery. All these contribute significantly to the competitiveness of a company. Therefore the components of a logistics system stand for important measures in process execution on the path of implementing an organization's strategy. Even giants such as Amazon are challenged to improve their performance in logistics continuously by innovating themselves or by taking over innovative logistics firms (The Economist, 2014).

The transport service Uber is already successfully competing with traditional taxi services. Now they are beginning to offer transport services of household articles. Via Uber-app customers can contact the next Uber-driver, make an appointment and get the goods delivered (Spiegel Online, 2014b).

#### **2.1.2.4 e-Payment**

The proliferation of e-payment (see Table 17) including micro payment systems can be considered one of today's most important development trends in e-business. It can be defined as the "transfer of an electronic value of payment from a payer to a payee over an e-payment device which allows customers to remotely access and manage their bank accounts and transactions, performed over an electronic network (internet)" (Teoh et al., 2013:466). Recently e-payment has become part of the many payment systems that exist and it has gained much popularity. Most retailers have added e-payment systems to their channels of payment that they are offering to their customers. Clients are making use of e-payment facilities; however, its reliability, safety and trust are still questioned. The offers in e-payment are basically designed to lower transaction costs and to create convenience for customers (Teoh et al., 2013:465). Additionally, retailers have incentivised the use of e-payment means by additional benefit in the form of rewards. Customers who often make use of e-payment systems receive discounts, resulting in high levels of loyalty. The key benefits include customers not having to carry any cash and being able to pay for anything at anytime from anywhere. In addition, e-payment is fast and very convenient. Types of e-payment systems include electronic cheque (i-cheque) smartcard, paypal, cybercash, electronic cash (e-cash) and mobile-money (m-money).

Table 17: e-payment

- Increase in process efficiency
- Low cost of executing
- High flexibility
- Easy handling of small payments
- Indispensable element of e-commerce

Obviously e-payment systems have increased in popularity and are being used globally. Countries like France, the US and UK have refined and fully developed e-payment systems.

It is an integral component of the business operations. As e-business grows into being a major element of business operations for many companies, e-payment has also elevated itself to become one of the most important and critical cogs of a successful business (Kim et al., 2010:84). The e-payment system acts as an important pillar of the e-marketplace (Mazumdar & Giri, 2012:930).

On the other hand, there is evidence that the use of convenient forms of online payments can increase overspending and consequently bear serious debt risks for consumers (Miles, 2014). That might lead to government imposed limitations, which in the future could probably slow down the strong increase in mobile payments which can be observed at the moment.

### **2.1.3. Supporting processes**

Online shopping and usage of the internet in general have increased significantly during the last years. This trend together with a range of scandals related to disregard of consumers' privacy issues has led to a situation where concerns about internet security can be regarded as the top reason for consumers' choice to avoid online shopping (Hartono et al., 2014:11). Obviously cyber-crime has taken on huge proportions (Norton, 2011:3). According to Norton cyber-crime report 2012, cyber-attacks cause damages of 110 billion US\$ per year on a global basis (Norton, 2012:6).

Cyber dependent crimes (or "pure" cyber-crimes) are offences that can only be committed using a computer, computer networks or other forms of information communications technology (ICT) (Detica, 2011:6). Security is of paramount importance to the success of any online retailer. Its lack causes growing concern among the population and makes people change their behaviour (Harris Interactive Online, 2009).

The following types of online crime can be distinguished:

- hacking: having a computer system accessed without permission;
- online theft of money: having money stolen electronically (e.g. through online banking);
- phishing: having money stolen after receiving fraudulent messages or being redirected to fake websites;
- online theft of information: having confidential information stolen electronically (such as staff or customer data);
- website vandalism: having a website defaced, damaged or taken down;

- viruses: having computers infected with files or programs intended to cause harm (Commercial Victimization Survey, 2012, chapter 3.4).

Cyber-crimes evidently are growing in number and the damage they are causing is increasing (UNODC, 2013:6). The governments have begun to respond, but it is still not very clear to what extent they will be able to limit growth in that area. Should there be an increased probability for users to become victimized, this will influence the behaviour significantly and most probably lower the acceptance of online offers.

Therefore prevention of cyber-crimes is not only a challenge for governments but for private companies as well. If they want to achieve acceptance of their online offers by potential customers, they must minimize the risk for their clients of becoming a cyber-crime victim.

Table 18: Importance of supporting processes

- **Cyber security**
- Recruiting (HR)
- Management / Organization
- Controlling

Consequently the outstanding aim of supportive processes in e-business is to provide a safe environment, which can rule out the risk of customers becoming targets of online crimes while interacting with their business partners. The need to build and maintain customers' trust in these capabilities of their supplier is substantial.

But there are other supportive processes which deserve consideration (see Table 18). In human resource management apparently online recruiting processes are on the rise. Only very few management positions are still being advertised the traditional way in print media, like newspapers and journals. Platforms like monster.de and the company websites are becoming more important as communication tools in a recruiting process (Klaiber, 2014). These changes offer substantial potential to be more efficient in hiring and should not be overlooked by retailers.

To be successful in a highly competitive environment companies are relying more and more on electronic business networks, online platforms, mobile and data-based recruiting. The development of an attractive employer brand becomes an important issue, too (Erlat, 2014).

Management and organization require a comprehensive informational basis. In this regard management information systems can be helpful (Beal, 2014), providing many different kinds of internal and external information of relevance for the specific management functions. These are commonly used successfully in industrial companies and, modified in the right way, they should be able to deliver benefits to the retailing businesses as well.

Data from the controlling department typically form a substantial part of such systems. The development and even more the fostering of such systems require a lot of resources. Their benefit is highly dependent on a continuous updating of the information included. Particularly this process is generally very laborious. Therefore at least big enterprises in retailing could form the spearhead.

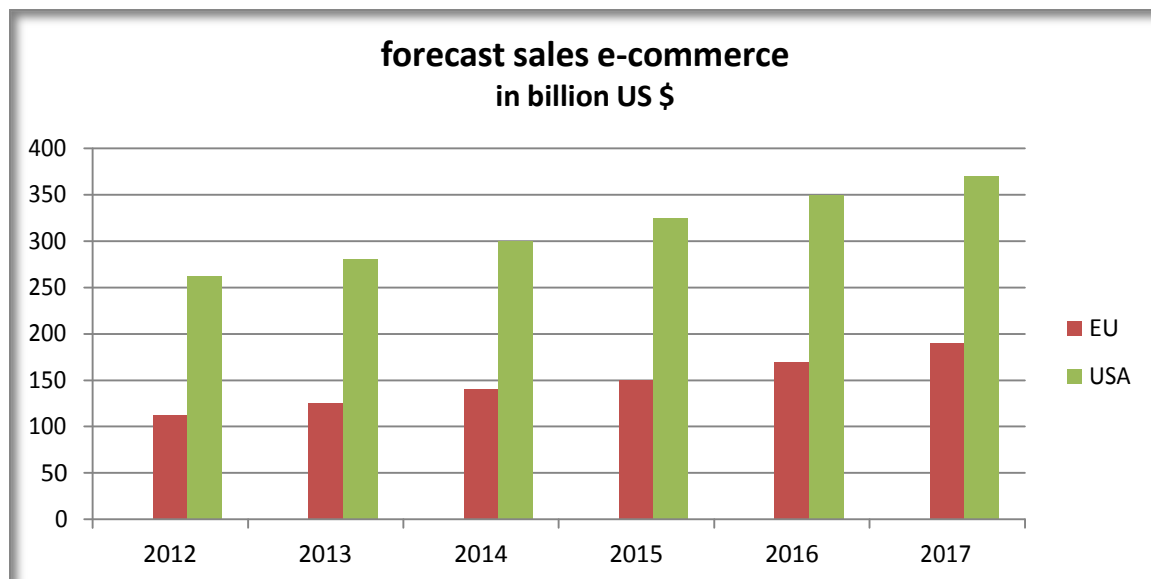
## **2.2. SKILLS REQUIREMENTS IN RETAILING AND WHOLESALE**

It seems that not too much research has been done on the issue of future skills requirements towards employees working in the retail and wholesale industry.

Already the demand for well qualified experts in e-commerce is huge and the requirements are challenging. So more and more retail chains, particularly in clothing and fashion, have a growing demand for employees holding a university degree (Lutz, 2012:V2/15). But there are very few universities offering programs in e-commerce with a retail focus. Therefore the job offer for these graduates is excellent and the main bottleneck in e-commerce development for companies – at least in Germany – is a lack of qualified employees (Heinemann, 2012:V2/15).

With good returns online retailers can afford to pay high salaries to qualified employees (Rigby, 2011:65). By doing that, they manage to set the pace and drive innovation while some of the traditional retailers are struggling with difficulties to attract the high potentials.

Figure 10: Forecast Sales e-commerce



(Source: Forrester)

As online retail continues to grow (see Figure 10) – in Europe it is expected to double the figures from 2012 by 2020 (Heinemann, 2013a:8) – the demand for qualified staff from this sector will rise, too. Furthermore the traditional retailers are forced to opt for multi-channelling (Rigby et al., 2014:5) and therefore increase their online activities significantly. Thus the competition among retailers for the e-commerce experts is going to reach higher levels.

The required qualification level in the traditional retail is generally going to rise. More ROPO (=research online purchase offline) customers will appear in the stores. They are very well informed about the products they require and about the offers and bargains on the market – sometimes even better than the salesperson in the shop (Heinemann, 2013b:17). Hence there is a general offensive in qualification needed and it is not only about knowing the products but also about knowing how to use modern communication technology as a support in order to be able to catch up with the customers' knowledge or preferably exceed it.

Another important aspect concerning the search for qualified staff is the usage of employer evaluation platforms like kununu, companize, meinchef.de, kelzen or jobvoting.de. They provide a possibility for employers to present them in an authentic way (Haderlein, 2013:150). Transparency can generate a competitive advantage for enterprises trying to attract employees. Social media like facebook, twitter and youtube are playing an increasing role in recruiting as they can provide deeper insights into a company and a vacancy than the classical ad or a mere presence on recruiting platforms like monster.de. All these online

activities seem particularly useful in the search for employees with IT affinity as they show a high presence on that field.

Table 19: Advantages of Outsourcing vs. Hiring

<u>Outsourcing</u>	<u>Hiring</u>
Good availability	Highly competitive market
Flexibility	Long-term commitment
Control difficulties	Security / confidence
Variable cost	Fixed cost

Many highly skilled and qualified players in e-business and e-commerce are rather the entrepreneur-type than the typical employee (Krisch & Rowold, 2011:88). Therefore most of them have a strong preference to develop their own company instead of becoming an employee. Hence, considering options for outsourcing specific parts of their e-commerce activities could possibly help to overcome the bottleneck situation. But on the other hand outsourcing bears the risk that enterprises are not able fully to control developments in areas which are crucial to the success of their business model. Furthermore they might become dependent on their outsourcing partners (Macharzina & Wolf, 2012:301) (see Table 19).

The dynamics in e-business are huge and they are causing the change of business models particularly in retailing. Consequently the buying behaviour of consumers is changing. These changes can look very different if one regards different nations.

There are opportunities for the retailers but threats, too. The qualification profile of employees needed changes dramatically in retailing.

Companies, particularly the SMEs, are watching rather than acting on these challenges. This can lead to major difficulties. Figure 6 in this chapter gives an overview of the most important opportunities and difficulties.

It seems that doing business on an international level is becoming easier and less costly, particularly in commerce.

The implementation of e-business should be regarded as a strategic objective and the realization will take time.

Individualization can form competitive advantages and becomes more accessible via e-business. But the importance of trust must not be overlooked.

In the fast growing environment of IT, e-business stands out. Here huge growth can be observed and expected particularly in developing countries, while social commerce has probably seen its peak already and has been adopted as a common strategy by many companies already.

In the field of b2b e-procurement has its origin but can help retailers to facilitate processes not only when dealing with their suppliers but eventually with their providers as well.

On the operative level CRM and the use of such software systems can serve as an example from b2b of how IT can be used to manage customer relations. Similar approaches seem to offer benefits when it comes to online shoppers, mining, storing and providing relevant data.

Managing logistics successfully is crucial for retailers and IT can offer some improvements. That has been realized by online giant Amazon already, where they are playing the role as pacemaker again.

Electronic forms of payment can reduce costs and increase flexibility. Particularly the handling of small payments seems to be of interest.

Clearly the most important challenge in supporting processes is the security issue. But companies' recruiting, managing and controlling are going to be affected as well.

As a result of these developments the requirements for skills and qualification profiles of employees in retailing have begun to change and there will be a growing competition for employees who have the abilities needed.

## **CHAPTER 3**

### **OUTCOMES OF DELPHI – E-BUSINESS IN GENERAL**

#### **3.1 FIRST ROUND OF IN-DEPTH EXPERT INTERVIEWS**

In a first round ten in depth-interviews with e-business experts have been conducted. The basis of the interviews was a guideline consisting of the following twenty topics (see Annex). The experts' answers concerning these will be shown in the following part.

##### **3.1.1 Detailed responses in first round of in-depth expert interviews**

As a contribution to the qualitative focus of the survey, showing the range of answers and comments made has been the first priority in this section. Therefore the contents of all responses are presented, the exact share or percentage of interviewees behind the individual statements is secondary to our purpose and often not reported, as the size of the sample does not allow for reliable quantitative evaluation.

##### ***1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?***

Almost all interviewees concede the overwhelming importance of e-business for companies and organizations. It is seen as simply impossible not to participate or to ignore developments in this field. Many experts stress the relevance of all phases in business processes from the first contact with a customer until after-sales activities. That also means that all the different functional departments of an organization are affected.

However, three times it is mentioned that nowadays dynamics cannot be compared with the hype around the year 2000, as the developments now are not as vibrant but more continuous and less erratic.

Many of the interview partners see a strong increase of e-business' impact in fields as b2a (business2administration) and b2g (business2government). "This is where today's dynamics lie," says one.

Another arena where e-business developments are spreading fast is strongly related to communication processes – media, journalism and (scientific) research.

In respect of e-business definitions, it is mentioned that support of economic transactions is a crucial characteristic and therefore most useful for a better understanding. Another constituent criterion of e-business is the use of web technologies via devices.

## ***2. Which are the main reasons for your opinion?***

The most common reason for its high importance is the potential of creating huge advantages in effectiveness and efficiency by using e-business technologies and applications. That makes it a very common basis for most business models. Also ubiquity is named very often and seen as a consequence of e-business with a high impact on business success.

About half of the people interviewed see the improved possibility to adapt to partners' wishes and needs if organizations make use of e-business. Two persons see a strong link to innovativeness and that it therefore can help create such an image of a company.

More specifically, a few times the potential creation of long-tail effects – as a form of increased efficiency and individualization – is alluded to. The expression 'long tail' refers to distributions having a large number of occurrences far from the central part, or average, of the distribution (Anderson, 2006). This is of particular interest in b2c markets and, in particular, in all situations when organizations are dealing with huge numbers of partners.

Another facet which should not be underestimated is convenience. For many the use of e-business practices can make life easier. This obviously matters a lot for e-commerce and online shopping activities, but more generally a reduction of transaction costs can be achieved.

The view according to which today's e-business development is more stable and sustainable than during the hype in 2000 is accounted for by its grown maturity and being linked to much better knowledge on the supply as well as on the demand side. "The technologies are more mature," "the experimental phase is over," "we have seen big advances in the field of security," are typical statements here.

## ***3. Which developments can be observed in e-business nowadays?***

One tendency which was named quite often was the field of increasing openness. It means that institutions or companies are making their data (e.g. customer behaviour) available to external partners, who will analyse the data and possibly create new services and support

(open technologies). British retailer Tesco, for instance, has quite a range of projects in that field.

The opinion landscape seems rather varied when it comes to the protection of data privacy. From a general perspective half of our sample is convinced that consumers are losing interest in that issue even more while the other half expects a sharp turn around not only in the wake of the NSA scandal. On a closer look it seems that consumers in Anglo-American countries and in Asia seem very much less concerned than people in Europe.

An important issue seems to be that of personalization. If behavioural data, for instance, can be anonymized, most experts would not see acceptance by consumers as a big problem, while they all see it differently if personalized data is being regarded. It therefore becomes clear – and is viewed thus by most of the interviewees – that trust becomes more important and organizations must take measures to rule out the misuse of data, if they do not want to put their relations with consumers at stake.

In b2b the acceptance of e-business is affected by privacy issues to a much lower degree. Most attribute this fact to a much more balanced distribution of knowledge concerning the use or risk of abuse of data.

Big data is identified as another megatrend in e-business. Huge amounts of data become accessible and can be analysed. The complexity of potential for evaluation is increasing sharply. That leads to a growing need for particularly skilled and qualified employees in all kinds of organizations. Real one2one marketing will become possible on mass markets and the segmentation of markets will become much more sophisticated and behaviour-orientated.

So-called internet of things or m2m business is a tendency at present. Different kinds of machines and technical devices are interacting automatically without the need of human interference. This is happening alongside a simultaneous development in sensor technology that leads to the creation of new products and services like virtual shopping experiences (Rietz, 2014:26) or the self-driving car.

According to most experts big changes can already be observed in tourism (travel agencies) and in retailing (e-commerce). Some see logistics as the next industry to be affected heavily.

Two interviewees mentioned the fact that a lot of research already takes place on the internet, not only information search but modelling and simulations, too.

Twice the e-business influence on distribution channels was emphasized. There are two opposite phenomena, intermediation and disintermediation, and both are occurring. Currently it is not clear which one prevails under which circumstances.

As e-business technologies are influencing companies and organizations, it was commented on that there are new markets coming into existence, for instance, network related services can be (and already are being) provided online.

#### ***4. Which future developments do you expect?***

An ongoing concentration concerning web-based offers and its providers is predicted by most interviewees, particularly for gds (general distribution services) such as booking.com, amazon, travago. Metasearchers may be competitors or partners, depending on the individual transaction. Generally speaking, the boundaries between business partners and competitors on the internet will become blurred. The supply chains are expected to become more complex as a range of additional services will be added. This will increase the number of players in the supply chain. The actors will specialize on value-added steps. There will be different models operating for extensive buying processes or rather spontaneous decision making.

Buyers will have the option to consider far more suppliers than has traditionally been the case without increasing the costs. There will be more potential to focus on buyers and individualize offers. The targeting of groups, segments or individuals will improve significantly, instead of spam. The long-tail distribution is becoming more viable (e.g. Google classified ads).

Automatized ordering will become more common, allowing improved efficiency. Profit margins in product selling will become under pressure even more. Some experts could imagine that service and after-sales orientation in general are becoming more important as here the margins will be better. This could even lead to longer product-life cycles, suggests one.

If product prices decrease, as expected by most, status effects lose importance and, for specific products (like cars, e.g.), sharing becomes more feasible.

Almost half of the experts see dark clouds arising above the solely offline trade and brick and mortar stores. Some others rather focus on a convergence of online and offline trade. If

that is realized with mobile devices, it can be called no-line trade and this is predicted as a future standard for most buying processes in b2c by many of the persons interviewed.

Some people's comments on that question focus on increasing openness, which could become the basis for a whole range of new services. The prerequisites for such developments are trust, namelessness and, most importantly, a responsible data management.

**5. Are you familiar with innovations in the field of e-business? (Please name and explain!)**

Online communication is replacing traditional ways of communicating, resulting in online relations. They allow for higher precision and efficiency in communication and interaction. One of the pacemakers is e-banking that nowadays goes much further than only account-keeping and includes the whole range of financial services. Other sectors which are leading in this area (on an international level) are health care, e-government, and retailing. The b2b sector is definitely the most advanced concerning the trend to online relations, but b2c has begun to develop in that direction, too. This evolution is of high interest for SMEs.

Another innovative field is the ibeacon technology. It allows for monitoring of behavioural data, particularly of consumers in brick and mortar stores. Data can be exchanged with other shops and it also allows for in-shop-navigation.

NFC (near field communication) and RFID (radio-frequency identification) are other innovative technologies. They both allow contactless data exchange. NFC is limited to very close distances, for example, holding a credit card over a specific device on the counter of a shop in order to make a payment. RFID allows (slightly) longer distances and is already being used for labelling products in a shop. Once the label with the RFID chip is brought to the counter, the data is read and the bill can be printed. Actually there are other applications, for instance, in automated production processes or in logistics to identify items. Mobile payment systems and micro payment systems (sometimes realized through RFID) are growing.

With these technologies products of interest can be identified and further information be provided in real time (e.g. detailed nutrition information or diet compatibility of food products). Another application, for instance, could be providing competitors' prices.

Pick n Pay's brand match campaign ([www.picknpay.co.za/brandmatch](http://www.picknpay.co.za/brandmatch)) can be regarded as a first consequence of such developments. But it can be expected that retailers will not be

able to get away so cheaply (the offer includes only 1000 products and is limited to 50 ZAR per buy and until Xmas 2014).

In the long run augmented reality will have a huge impact on the shopping experience.

The innovation of 3-D printing will have huge consequences. Naturally logistics will be affected, stock-keeping can be reduced dramatically and tariff barriers will be challenged.

Sensor technology is developing fast and has a strong influence on what can be realized in e-business. There will be new devices coming up (e.g. google glass as a contact lens) and m2m, in other words, the internet of things is an important trend. As a consequence internet ubiquity is increasing even more.

There will be a merging of shopping and entertainment. So far this can be observed in offline channels like malls but in the near future this will strongly affect the online shopping activities (lean back behaviour will increase). With improved 3-D technologies online shopping will become more of an experience and will have more entertainment potential (merger of TV and web, e.g. chromecast).

Another aspect is the reduction of complexity in the making of buying decisions. Technological advances will not only allow the customer to consider more offers but also to identify the right offer fast and efficiently, with the decision based on the criteria of real relevance.

## ***6. How about their importance and impact?***

All interviewees see a dramatic impact and they agree that it is mandatory to participate. The most important challenge is to transfer technological developments and, more specifically, innovations into (economically) successful applications. To observe and to identify does not require so much effort, it happens almost automatically, says one. A few identify the need to differentiate between users/consumers on the one hand and suppliers/providers on the other. For the first ones privacy and data security is essential and for the second ones dealing with huge amounts of data and being able to analyse and evaluate them is crucial.

## ***7. What consequences will they have?***

Successful business models have to generate added value. It implies that the innovations will allow additional services or benefits for their users, for instance, a new search and

reservation platform for hotels could permit more selection criteria. Consequently services will become ever more efficient.

An essential issue is the distribution of profits between the manufacturer/producer and the distributor.

Some of the people interviewed foresee a reduction of fears concerning online cheating, but many see the existence of a globally aligned legal system as a prerequisite for such a development.

A very dynamic proliferation of micro payment systems is expected by a few. This would have a strong impact on improving efficiency of many processes, for instance, at the cashier of a supermarket. High performance RFIDs are still too expensive for use in (food) retailing, but this could change soon.

The tendency that supermarkets will go online (amazon already is) still has its limitations. Among these are the following: Who will receive the goods if there is nobody home? How can the cold chain be guaranteed? Could there be a cool box installed in the garden, where the postman can drop the delivery?

In communication it looks as though a few channels might be replaced or at least be losing impact (e.g. mass media, print). The distribution is due to change completely according to more than half of the respondents. The customer value will change, so will the relations between organizations, companies and consumers. Individualization is going to increase heavily and completely new forms of market or customer segmentation will become viable.

### ***8. How about the impact of these consequences?***

What is practically regarded as common sense among the informants is the notion that all these innovations (will) have a huge impact. Of particular relevance seem to be m2m/internet of things, 3-D printing, hard- and software innovations, payment systems, micro payments and big data, all of which are briefly discussed below.

The developments in m2m/internet of things led to the automation of buying processes and shortens decision making. A refrigerator could, for instance, place online orders automatically for particular products that have been used or are expiring. In such cases the order would most probably be placed with a supplier(s) already registered with, and potential new suppliers would normally not be considered. The effect is a stabilization of existing buyer-supplier relationships.

The technology of 3-D printing offers vast possibilities, especially affecting logistics. Instead of having a broad range of products stocked, they could be printed out 'just in time'. But the assumption that people would do this at home with their own printer will be the exception as sophisticated 3-D printers will remain costly. But it could lead to the creation of specific printing points (comparable nowadays to copy shops) with high end printers, printing the products which will then be picked up by the customers.

Tablets have shown how hardware innovations can affect buying behavior. Future innovations in hardware (which still are not known and hard to predict) can cause changes of a similar degree. Inside stores, 'beacons' as an innovation in hard- and software can help implementation of category management as they can help customers to find the products they are looking for, even 'functional departments' no longer exist in the store. In software development, apps are important drivers and they already play an important role in some buying processes. In the future more apps with new benefits will be created and will thus increasingly affect the buying behavior of people.

A range of electronic payment systems already exist. Many of the ones used widely today are rather complicated and therefore useful for substantial payments only. In the future more systems for small micro payments can be expected. They offer the possibility to facilitate the electronic payment of very small sums improving the efficiency of such processes. Retailers must observe these developments to be able to choose the right standards at an early stage.

Big data is a big topic in many discussions at the moment. It has a potential to significantly improve the suppliers' knowledge of individuals' attitudes in mass markets. The ones who manage to adjust their offers accordingly can benefit and create unique selling propositions. It is still not clear which technological and scientific innovations will create the new advances in the field of big data.

### ***9. How permanent do you judge the impact of the innovations mentioned?***

Most innovations are judged as fairly permanent. Some minor adjustments might be occurring, but unless there is a huge "data catastrophe" about to happen, the development path seems to be clear and without big surprises. The users' sensitivity concerning privacy issues still remains pretty low. The intermediation – disintermediation trend appears to be of particular constancy. Creating additional benefits – even if they are just social benefits – will remain central, as benefits will continue to create recommendations.

### ***10. How about their dynamics?***

The dynamics of development remain very high. Drivers of innovation are the giants like google, ebay, amazon, Microsoft, apple. The users slow down the speed of change. They have their behaviour patterns and are not willing to shake them up from one day to another. "In the core e-users are very conservative," says one.

The velocity of change depends on the setting as well. If one actor can act independently the dynamics will be much higher than if several actors had to coordinate their behaviour.

A few respondents observe decreasing dynamics of change. But consequently the changes now affect strategic levels and not like in the past only the operative ones.

### ***11. Which future developments can be foreseen?***

The strategic impact will increase even further. The integration of such modern technologies into strategic decision-making will be improved. Analytics will become much more important and will produce new tools (e.g. facebook's social graph). Transactional data will become vital, first of all in the area of payment systems. All competition is about handling of data traffic or, more specifically, the processing of order account. Big players like visa, google and apple are competing with start-ups.

Automation is conquering new ground. Individualization and personalization of products become easier. The smallest production batches become economically feasible. The fab revolution is to come. The direction of development is determined by consumers' habits and their convenience.

More detail and more knowledge about web traffic become important, not only in massive trade but also concerning the long-tail end. Cost per click models will further replace commission based systems.

### ***12. How about their probability of becoming real?***

New analytics tools will definitely appear. Information value is changing. It is of great interest to understand very well how recommendations materialize. Techniques of data-mining will gain importance as they form the basis for successful customer analytics and the retention of customers (CRM). Recency, frequency and monetary value (RFM) make for the pivotal anchor points of behavioural analysis in a social environment.

Whatever is demanded will be offered. Very often the applications of technological innovations are still lacking and have to be identified.

The opinion shared by most respondents is pretty well represented as follows: “What is clearly to be expected are big data, analytics and focus on handling of data-traffic. Matching strategies will be developed, just the details are still open.”

Taking more responsibility in your daily life can lead to economic advantages (e.g. health insurance, car insurance, life insurance), which could influence individual behaviour patterns. Data security and privacy are important issues in that field and it is still unclear what will become a widely accepted common standard and what will be rejected.

### ***13. Which external factors are involved?***

The overwhelming majority of the respondents agree on public opinion concerning privacy of data as a highly important external factor influencing the future development of innovations. They stress the fact that the sensitivity in respect of privacy issues in the US and the UK is much lower than in other European countries. Especially Germany – together with Scandinavian countries – shows a high level of consciousness concerning these matters, whereas in China the situation rather compares with the US or UK. The predictability of future tendencies in that field in any case is rated low. One of the questions is whether users will continue to compromise on privacy for convenience, efficiency or other benefits.

Other important factors are cultural and technological aspects. While culture is showing a certain stability and therefore guarantees continuity, technological developments can be very disruptive and are therefore hard to predict.

The diffusion of standards in hard- and software has a huge impact, too, as do the development of copyright laws and the definition and acceptance of legal standards on an international or global level.

Some interviewees mention the availability of location based services as an important external factor.

#### ***14. Which industries/sectors will be affected most?***

Retailing is widely seen as one of the industries most affected. More generally speaking, the whole service sector is touched more than manufacturers and producers. That is due to logistics.

About one third argues that all sectors will be struck more or less the same and it does not really make sense to differentiate among various levels of affection related to industries.

One says that wherever there is a potential for simplification and standardization of operation, it will result in a high degree of affection. Particularly user support is seen as such an area.

#### ***15. Which functional areas of organizations will be affected most?***

Generally b2b is seen as the pacemaker, b2c and the others are following. Increasing transparency of processes can be observed in the car and pharmaceutical industry, for instance.

Marketing and management of processes will be the prevailing targets in the near future. In production the biggest achievements have already been made, and the supply chain still has potential. All kinds of services are subject to change.

Almost half of the respondents expect a substantial amount of changes in HR. They argue with the lack of significant affection in that area so far. The others do not see much potential for e-business application in HR.

#### ***16. Are there different scenarios concerning future developments in e-business?***

The respondents neglect any need of scenarios for the purpose of short- or mid-term forecasting. The development path seems to be clear, unless it came to major catastrophes which could change the whole setting. For long-term consideration, important factors to describe scenarios could be issues such as public opinion respecting the privacy of data and the diffusion of mobile payment systems. Another important aspect concerning scenarios is the availability of experts having a profound knowledge of the interfaces between mechanical and internet technologies. Two interviewees identified a possible bottleneck for the future development of e-business.

**17. On a global level does it make sense to differentiate developments on a country- or region-specific level?**

The answers to that question were rather varied. There were half of the experts suggesting a quite global development that would let it seem dispensable to go very deep into local, regional or country-specific details.

The other half of the sample is convinced, that regional or country-specific characteristics have a deep impact and cannot be neglected at all. In that context Africa has been cited a few times as an example where the country-bias and regional differences are huge.

“Probably the Anglo-American world (plus a good part of Asia) is quite homogeneous on that issue, as is Europe. The rest of the world, name it Africa, is different,” says one.

**18. Which sources of information are you using concerning the field of e-business?**

Journals and magazines were mentioned very often. Among the most commonly quoted were The Economist, Business & Information Systems Engineering, Decision Support Systems, International Journal of Electronic Business and International Journal of Electronic Commerce. The German title VDI-Nachrichten was named a few times, too.

The interviewees visit conferences and fairs. ICIS and ECIS are the most popular conferences. Internet World, Munich is a popular fair among the interviewees, also E-Commerce, Paris and eCommerce Expo, London.

Blogs (techcrunch.com), websites and textbooks are commonly used as sources of information, too.

**19. Which sources are most important for you?**

Most respondents name personal contacts, colleagues, business relations and friends.

**20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?**

Very few recommendations were made. techcrunch.com is one which was mentioned a few times. As a textbook K.C. Laudon: Management Information Systems was named, just as M. Baechle, F.R. Lehmann: E-Business.

Marketing Science conference by Informs was mentioned.

### 3.1.2 Summary of experts' responses in the first round of Delphi

In order to provide a basis for discussions in the second round of Delphi the experts' responses have been summarized. The basis for the summary was the questionnaire used and the answers to the various questions.

The result is the following list of 20 theses.

Thesis	Comments
1. There is an overwhelming importance of e-business.	e-business has a strong impact on the performance of companies as it affects their efficiency and effectiveness.
2. Organizations must not ignore it.	The impact of e-business will even increase in the future and (almost) all firms will be affected.
3. Support of economic transactions is central in e-business definitions.	Definitions of e-business often include the support of economic transactions as a very important function of e-business.
4. Another crucial aspect in defining e-business is the use of web technologies.	In most definitions a basic characteristic of e-business is making use of web technologies possibly internet or also intranet in a specific organization.
5. The main advantage of e-business is efficiency.	To implement e-business in an organization often produces gains in efficiency, the main reason why e-business is so important.
6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.	The opinion about customers' concern in respect of data privacy is varied. The overall results show two opposing judgements: Users' concern is going to increase or users will lose interest even more.
7. The spreading of e-business is leading to more concentration.	As e-business is becoming more common, some actors can even improve their already strong market positions and eliminate competitors, practically creating a monopoly (e.g. Google, ebay, Amazon).
8. Individualization resulting from big data is a strong tendency on many markets.	In the past it became easier and cheaper to handle huge amounts of data. Using this ample customer information allows for the creation of more and more offers which exactly meet customers' expectations and therefore create competitive advantages for the providers.
9. Offline trade is being threatened.	As online trade obviously is booming, it can be expected that it will take away its share from the classic brick and mortar shops, if they fail to include online channels.
10. No-line trade is becoming the new standard.	The integration of online and offline channels is inevitable for all retailers, only very few using extreme niche strategies might be excluded.
11. There is an innovative trend to online relations.	To focus on managing relations is already a common marketing strategy, while the focus on online business allows improved efficiency in relationship management.
12. The technology of ibeacons is an important innovation in retailing.	Ibeacons is an example for location based services which are available indoors. It can be used to provide information to customers, depending on their location and at the same time to obtain information about customers' movements, shopping behaviour and interests.
13. Augmented reality will have a huge impact on the shopping experience.	Augmented reality is still complex and therefore costly but it can greatly influence customers' shopping behaviour in the future (e.g. virtual shops, providing product and price information at POS).

14. Shopping and entertainment is integrating, not only offline but online, too.	Entertainment can attract customers and make them spend money. But it is important to find the right combination of shopping and entertainment offers, because if they do not match, customers will reject them.
15. The distribution will change completely.	In the future the distribution of products will be different from now. Particularly flexibility will increase.
16. The communication landscape will continue to change.	In communication new forms and technologies will continue to appear, influencing customers' behaviour.
17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.	These technologies and applications already have a strong influence on developments in e-business. There is a potential to become even more important in the near future.
18. Future developments will focus on analytics, automation and individualization.	Analysis of existing data still shows a lot of innovative potential. Automation of various kinds of processes (e.g. in communication, distribution, logistics) will further increase. As a result creating really personal, individual offers at accessible prices becomes feasible.
19. Retailing is one of the industries most affected e-business developments.	The development which at present can be observed in e-business and e-commerce already affects the retailing industry heavily. Until now there is no end of the trendline to be seen.
20. The formation of public opinion is the central mediator in e-business development.	The future development of e-business and e-commerce will depend very much on how public opinion towards topics like cyber-security, data privacy and web technologies is going to develop.

## 3.2 SECOND ROUND OF IN-DEPTH EXPERT INTERVIEWS

### 3.2.1 Comments from the second round

In the second round of e-business experts' interviewing the position statements from the first round were used as the basis for a discussion. The comments made are presented in this section.

#### **1. *There is an overwhelming importance of e-business.***

The expression *overwhelming* seems to be a bit exaggerated. In fact e-business is very important for enterprises, but there are other developments driven by technology or politics, for instance, which affect them to a similar degree.

#### **2. *Organizations must not ignore it.***

It is agreed on that ignoring e-business developments would cause a significant threat for most companies. Anyhow, some experts mention that not all industries, firms and business models will be struck to the same degree. Hence the ones least affected can probably almost ignore it without being threatened.

**3. *Support of economic transactions is central in e-business definitions.***

Giving an accurate definition of e-business is not the easiest job, so there is not so much agreement concerning that point. Some experts agree while others do not see the support of economic transactions as such an important function of e-business and therefore would not suggest a central role of this aspect in defining e-business.

**4. *Another crucial aspect in defining e-business is the use of web technologies.***

This aspect is widely accepted. One person says that web technologies do not necessarily have to be the internet as there exist other networks, like for instance EDIFACT, which are separate and (still) play an important role.

**5. *The main advantage of e-business is efficiency.***

All agree on a general level. Efficiency is always of huge importance in business. Whether gains in efficiency can be produced by applying e-business depends very much on the individual firm.

**6. *Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.***

It seems that Central Europe and Scandinavia are more concerned about privacy. In the US, UK and Ireland as well as in Asia that notion has a far lower importance.

**7. *The spreading of e-business is leading to more concentration.***

For this point a range of examples can be cited, but not all interviewees are sure whether this development is going to be final. It is stated that, at the moment, future effects leading to an increase in competition cannot be ruled out. For the present a trend of increasing concentration can be observed, particularly in selling to consumers. Amazon (globally) and Zalando in Germany or Ali Baba in China are examples that can illustrate what is meant by concentration.

**8. *Individualization resulting from big data is a strong tendency on many markets.***

Individualization at present is regarded as a strong trend. But a few have doubts whether this trend is driven by big data. "One of these buzz words ... you never know, if they have any relevance in the future," is stated by one. It seems that the expression (big data) as used nowadays is somehow inflationary and occurs in situations where it is not justified. Thus understanding of the term becomes blurred.

**9. *Offline trade is being threatened.***

It is common sense that online trade increases. A substantial share of that increase stems from offline. But offline trade is not expected to vanish. Some fields will be affected more – like services, for instance – and others less like fresh food retailing, for example. In some countries like in South Africa malls have a strong position and they will be able to defend themselves against online competition, the interviewees believe.

**10. *No-line trade is becoming the new standard.***

No-line trade is an expression which refers to an integration of the different kinds of trade channels into one system which is then used by the company. The respondents agree on the necessity for suppliers, particularly in the consumer business, to integrate the different channels making use of at least one online channel. Only very specific business models can possibly do without online presence in the future.

**11. *There is an innovative trend to online relations.***

This opinion is shared by most. But it is mentioned that further developments in that direction are strongly influenced by the public concern about data privacy and cyber security. In b2b the trend is possibly stronger than in b2c.

**12. *The technology of ibeacons is an important innovation in retailing.***

To some ibeacons or similar technologies of other suppliers indeed seem to be an interesting innovation that allows for successful activities in retailing, while others rather judge it as a fad or a gadget.

**13. *Augmented reality will have a huge impact on the shopping experience.***

Augmented reality is widely recognized as potentially very interesting, but cost and effort of implementation are huge. Consequently it is regarded as partially relevant, depending very much on the specific business model of the retailer.

**14. *Shopping and entertainment is integrating, not only offline but online, too.***

That statement is generally accepted for b2c. But for specific target groups (e.g. shopping-averse men) the trend is definitely less interesting. In many developing countries shopping is a typical and loved leisure time activity for the (lower) middle class. They will not be attracted too much by online shopping offers. A few of the respondents are convinced that low-involvement product shopping does not have a high potential to be integrated with entertainment activities. “In this field price, speed and convenience are the drivers,” says

one. In b2b and on markets for industrial goods the need for entertainment integration looks equally low.

***15. The distribution will change completely.***

Generally all interviewees expect big changes in distribution, though the dimension will depend very much on the particular industries and customers. To analyse and understand how consumers make use of different channel options – sometimes labelled (local) consumer journey – becomes the target of research activities.

***16. The communication landscape will continue to change.***

Everybody agrees.

***17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.***

Commonly payment and micro-payment systems are regarded as the most relevant out of the four. The technology of 3-D printing is also considered as a technology with impact. Generally the respondents believe that all four trends are to be seen as drivers of e-business and e-commerce proliferation.

***18. Future developments will focus on analytics, automation and individualization.***

The interviewees are convinced that developments in these fields will cause many new business models and create a lot of opportunities for enterprises.

***19. Retailing is one of the industries most affected by e-business developments.***

Definitely there will be a strong impact on retailing. But not all retailers will be affected in the same way. The outcomes depend very much on the specific business model, the customers and the goods or services provided.

***20. The formation of public opinion is the central mediator in e-business development.***

For b2c this statement is widely accepted, but for b2b the interviewees do not attribute such an important role to the public opinion in a society. Some mention their conviction that – even in b2c – technological developments (innovations) and financial aspects (profits) are more important drivers.

### 3.2.2 Consolidated findings from second round

As shown, the discussion of the unstructured set of theses resulting from the summarized responses in the first round led to a range of constructive comments. By using them and the detailed findings from the first round of interviewing the following set of theses has been developed:

1. The term *e-business* nowadays commonly refers to applications that support economic transactions by making use of web technologies (not necessarily the internet).
2. In general e-business has to be considered as an important trend. It should not be overlooked by companies, but not all sectors, industries and businesses are struck to the same degree. It seems that retailing is one of the most affected ones.
3. There will be even more changes to come in distribution mostly affecting b2c and particularly services. Consequently companies will have to integrate their distribution systems making use of online and offline channels (= no-line trade).
4. Consumers wish to combine shopping and entertainment. Enterprises which respond to these requirements (online and offline) will be able to build up competitive advantages.
5. The communication landscape is subject to heavy change. Mobile is an important trend and leads to steadying of communication processes. Customers require uninterrupted availability of suppliers and service.
6. Concerns towards data privacy and cyber security seem to be somehow varied. One group expects a strong rise in importance of these topics, while others do not expect a lot to change. But it is commonly agreed upon that particularly consumers are currently underestimating these topics. If that is true, a significant change of public opinion can be expected, resulting in a strong impact on consumers' behaviour.
7. Individualization is another important trend in business. Using new technologies enterprises focus on managing online relations and consequently improve their efficiency.
8. There is a range of technologies with different levels of impact on e-business developments:
  - Augmented reality has a huge potential, but is costly to be realized.
  - Stores are experimenting with ibeacons, and there might be some service benefits resulting.

- Payment and micro-payment systems can increase safety and efficiency not only in retailing.
  - 3-D printing technology proliferates and affects first of all logistics. To assess its future impact is difficult.
9. New business opportunities and models will result from analytics, automation and individualization.

### **3.3 CONCLUSION FROM RESULTS OF DELPHI INTERVIEWS**

It is obvious that e-business – the use of web-based (not necessarily internet-based) applications in order to support economic transactions – has a strong influence on many industries. Retailing by most experts is considered the most affected.

Therefore the challenge of getting prepared is huge. Within retailing companies more than all other fields the required qualification profiles of executives in middle management will be subject to change. This results from

- the required channel integration (online and offline simultaneously),
- the need to create offers which combine shopping and entertainment,
- the necessity to adjust (traditional) e-commerce to mobile commerce,
- security issues which can be expected to gain importance and are crucial for building trust, and
- the individualization of customer focus.

Certainly technological expertise and in-depth knowledge of up-to-date technologies form part of these new qualification profiles required. But it is not going to be technology competence alone which successful retail businesses will need in the future. It must come combined with strong administrative capabilities, a profound marketing background and sales experience in order to be able to deal successfully with the challenges retailing is expected to be facing.

How this is being perceived in trade and commerce can be seen in the following section, where findings of in-depth interviews with commerce experts are presented.

## **CHAPTER 4**

### **RESULTS OF INTERVIEWING TRADE EXPERTS**

The empirical research so far has produced some results concerning e-business and its various fields. In order to deepen them further and in particular to assess their relevance for the retail industry, a round of discussions with trade experts was conducted. Besides appraising the effects of e-business on the retail industry a second focus was to identify developments concerning the skills and qualifications of employees the retailing has a demand for.

#### **4.1. DETAILED FINDINGS OF IN-DEPTH INTERVIEWS WITH RETAIL EXPERTS**

##### ***1. Which development trends are important for retailers at present?***

Generally, there is a very high intensity of competition on the retail markets all over the world. So margins are under pressure and therefore many retailers are in search of possibilities to increase their efficiency by lowering costs, so that increased prices appear as rarely possible. Thus e-commerce comes into the focus of many.

Obviously - and here practically all experts agreed – the predominant development in retail is the proliferation of accessing internet from mobile devices, mostly smartphones and tablets. This has quite some consequences for the online activities of the retailers. The complexity is increasing significantly. There are different operating systems and different technological parameters (e.g. speed of processor, size and resolution of the screen, speed of internet connection) to be considered, because they have a huge impact on the appearance of a company's communication. Simultaneously the customer behaviour is changing. The number of visits, for instance, increases very much, but the time of each visit diminishes and the conversion rates fall sharply. That requires a lot of modification and alignment concerning the whole web appearance of a firm. Therefore web-designers and screen-designers are needed, but also experts in the various types of operating systems.

These behavioural changes implicate adaptation in marketing, too. If visitors spend less time they have to be addressed in a different way, and to make them return, by offering incentives or making it convenient, becomes the main challenge. Marketing experts with a strong IT affinity is an occupational profile that is already in high demand, but it can be expected to become even more sought after by retailers in the near future.

The growing attention towards cyber security in e-business does not leave retailers untouched. The general public seems to become more and more aware about what kind of risks IT users are facing. Therefore online shoppers are increasingly concerned about security issues. So retailers are in a situation where they have to guarantee their customers security if they want to continue doing business with them. It is probably even more important when they are trying to attract new customers. Lack of trust concerning the IT process security can keep potential customers away.

So there are two major challenges for retailers to be identified in the field of security. The first is to make processes secure and safe against attacks of cyber criminals. Therefore highly qualified and experienced IT security experts are needed. The second is to convince customers and potential customers successfully that they are safe, when doing online business with them. This is rather a marketing and communication task and consequently requires staff, experienced and qualified in communication, particularly in building up trust and confidence.

## ***2. How do you assess the role of e-business in this context and which trends and tendencies are of importance?***

For most enterprises e-business plays an important role. But it is clear that not all business will be done online in the near future. Most probably in the different sectors of retailing there will be different shares of turnover stemming from online trade. As has been experienced in the past years, service providers (e.g. travel, banking, financial services) already have few difficulties in bringing their business online, particularly because internet infrastructure in these cases can be used for logistics, too.

Anyhow not all travel agencies disappeared and not all banks were closing all their branches. So e-commerce rather has to be considered an additional option for the clients and they choose what they prefer. This will be the case everywhere in retailing.

The entertainment of (potential) customers is becoming highly important in retailing. If companies manage to provide an entertaining context, they can motivate their clients and communication partners to dedicate them more of their precious time. That does not mean that sales will go up instantaneously but more time with the customer definitely provides a better basis for increasing conversion rates.

Another aspect mentioned was convenience. It is very important in order to achieve sales and customers sometimes are even prepared to pay for it. Consequently it becomes very important to gain the most comprehensive understanding possible of the customers' individual situation, because only then can enterprises make offers which are highly convenient for their buyers. This probably is the moment when big data comes into the game. The use of today's modern communication technology and devices produces a huge amount of data. So far most companies still have big difficulties in understanding what they have and which management activities should be the result. This is an extremely complex issue and a lot of analytical, statistical and mathematical knowledge is required to solve it. But the example of google – probably the only company so far – which is quite strong in big data analytics yet, shows the potential of success. The success in selling for many enterprises will depend on their capabilities in analysing big amounts of data or having access to the specific results in another way, for instance, to buy them from information providers who have the resources and analytical competence.

In both cases the retailers will need to increase their expertise in accessing, storing and particularly analysing data. Consequently they will have a growing number of positions for data analysts or people who have the knowledge concerning the tools and processes but also the right understanding of marketing, sales and behavioural sciences like psychology and sociology.

### ***3. Which technologies and innovations are of particular importance for the retail industry?***

Besides the proliferation of mobile devices and their consequences which have been discussed above (see question in this section 1.), e-payment and particularly micropayment has been mentioned. These technologies can increase the efficiency not only of e-commerce, but could affect the traditional brick and mortar store, too. Once e-payment becomes the standard in shops, queues at the cashier in the supermarket could be avoided. That it can be a great relief for the customers can be observed in Italy when paying the road toll on the highway electronically.

Virtual department stores or even shopping malls are another innovation. With technological advances customers can enjoy the shopping experience while sitting on the sofa at home using data goggles, the flat screen or in the near future a 3D device. Such possibilities, at least while they are new, will have a certain entertaining effect and just by that attract a specific target group. In the long run they could possibly cause similar effects like the use of mobile devices, resulting in an increasing number of visits, but lower conversion rates.

#### ***4. Where is the retail industry heading to?***

The share of online trade in the US and UK has been growing a lot during the last years but there is first evidence that a plateau might have been reached in these countries. In others, like Germany, for instance, the trend seems to be continuing and in developing countries it seems that it has just started to pick up momentum. Therefore the biggest growth rates in online trade will be achieved in these countries (e.g. BRICS, ASEAN, UNASUR).

In countries where malls have reached a strong position (e.g. USA, South Africa) it seems likely that they will be able to defend it against growing online trade. They should try to focus on their competitive advantages (e.g. atmosphere, personal contact, holistic experience of shopping and entertainment).

Channel integration definitely is the dominating trend in retailing on an international, global level. The advances made in this direction differ significantly among various countries – frontrunners seem to be the industrialized countries – but others are following. Nevertheless the differences in different countries will not be vanishing completely. The quality of the existing (transport) infrastructure and the reliability of logistics services will have an important impact on these developments. In South Africa transportation costs seem to be relatively high and the security of deliveries respectively low, so that situation makes for a barrier to developments in e-commerce which should not be underestimated.

Most experts expect a growing role of retail brands as umbrella brands for the whole range (or at least substantial parts) of a retailer's activities. As a result the future market position of retailers will depend very much on their ability to build up a strong umbrella brand for their activities. In that context word-of-mouth and particularly its electronic form of viral marketing or communication will become more important as it offers a broad range of benefits in comparison with traditional forms of communication. But there is much need of research in that area as it still remains unclear to a large degree which factors make for the success of viral campaigns and how they can be applied in the context of a corporate communication strategy.

For management and executive positions in retailing there is a growing demand for university graduates, but in selling – because of cost limitations – university graduates will remain a minority.

### ***5. Which changes are you expecting in the retail industry in the next five years?***

Social commerce is a trend that is mentioned and that might gain importance in the near future. The potential is appraised as high.

It does not seem likely that the technology of 3D printing will turn the retail industry upside down during the next years, but the first business models are appearing and some seem to be successful (e.g. printed spectacle frames).

The availability of product, price and market information for the customer at the point of sale will become much better (more convenient, faster, cheaper, more reliable). Consequently the requirements towards salespersons' knowledge, qualifications and competencies can be expected to increase significantly, in order to avoid the scenario where well-prepared customers knowledge-wise outperform sales staff.

There will be much more competition for qualified employees in retail. This will cause salary levels to rise, at least in developed countries. On the other hand, it forces retailers to intensify their activities in personnel training and development. In Germany, for instance, there already is a variety of educational programs which are designed and offered through collaborations of different retailers to their employees. In consumer electronics retail the manufacturing industry quite often offers training and qualification programs to the retailers' staff. In Germany online platforms for education and training of employees (e.g. plural media, smart audio lines) in retailing play an important role.

There will be more proliferation of innovative forms of payment and the retailers will have to cope with an increasing variety of payment systems. The possibilities to charge customers for the use of specific kinds of payment system will be (= are already) reduced. That is particularly the case for the European Union (EU).

Another trend, particularly in consumer electronics retail, is integration or, more precisely, crosslinking of components. This kind of service requires a high level of technological competence and specific product knowledge, particularly if devices from different manufacturers have to be integrated. Customers are prepared to pay for it, but somewhat problematic is the cost proportion. Consumers who pay 800 € for a new TV without difficulty, will be shocked if they have to pay a similar amount for installation and crosslinking service. Nevertheless, for the retailers there definitely is a potential for selling additional services with lower levels of competition and therefore better margins than on the product market.

In selling these kinds of services smaller retailers which are geographically closer to the customer might have an advantage. This would be further strengthened if they employ service staff over years, allowing for personal relations with customers to develop.

As hardware prices are falling and will continue to fall there is less and less money to be made in that field. Revenues on the market for compact cameras in Germany, for instance, have dropped by 30%, for household appliances by 15% in 2013. Retailers in electronics and household appliances therefore have to look for new markets and new business models. To focus more on services could be an option.

***6. Are these trends relevant for a specific country (e.g. Germany), a specific region (e.g. Europe) or on a global level?***

Many times trends originate in a specific country or region, where particular, homogeneous situational conditions apply. Then the trend becomes proliferated in a broader area with similar conditions and sometimes it will become global. But as countries and regions remain varied in many respects, even global trends will show their regional or country-specific particularities. "Therefore if you want to be precise there is no such thing as a global trend," says one.

Cultural aspects often cause regional adaptations of developments which are occurring all over the world. In addition, legal or political factors commonly have such an impact. Sometimes also natural or environmental conditions can function as a delimiter.

For instance, in Germany's consumer electronics business the share of manufacturers' direct selling is still pretty low, but can be expected to rise in the future, resulting from a trend that is boosted by e-commerce developments and can already be observed in many countries.

***7. Are there specific success factors to be identified in new business models in retailing?***

The central success factor that was frequently mentioned is customer orientation and the creation of benefits. Their appraisal is very customer-specific and therefore individualization or the possibility to individualize without heavily increasing the complexity cost can be regarded as an important success factor. In other words, achieving increases in efficiency

and subsequently producing advantages for the customers was commonly seen as the only existing sine qua non condition for success of business models in retailing.

A few other, but only necessary aspects for the success of retailers' business models were mentioned, such as innovativeness, creativeness, convenience, simplicity, reliability, safety and transparency.

A stronger service orientation could be the key to success in electronics retailing, but can be applied successfully in other markets, too. An example would be Amazon's prime.

***8. Which are the distinguishing characteristics of new successful business models in retailing?***

According to the experts' opinion there is no clear evidence that such general characteristics do exist. In particular situations the aspects named above (see question 7) played an important role, but cannot be generalized.

***9. How are the requirements and expectations towards employees in the retail industry developing?***

Expectations of a significant increase in employees' qualification and education levels in the retail industry are generally accepted. All experts agree that a substantial number of jobs will be created requiring in-depth knowledge of mathematics, statistics and programming. In addition, employees with excellent software knowledge (e.g. operating systems, browsers, CRM, databases, evaluation tools, IT security) are needed more and more.

But it is not only these experts in quantitative subjects who are needed. Another qualification profile already in demand and with excellent potential for growth is the combination of knowledge in social sciences (psychology, sociology, marketing, sales) and a good qualification in quantitative subjects.

Because of cultural diversities in different countries the retailers wanting to become real global players will have to hire more experts who know and understand cultures in different countries and regions of the world very well.

Communication will play an important role in future retailing, too, but as it can be observed already, the landscape of communication is changing dynamically. Therefore retailers will

have to keep up with all developments in this area, consequently communication expertise is needed.

Generally it can be observed that not only in retail an integration of knowledge and experience from different functional areas of a company will become more important. Hence the interviewees identify multidisciplinary as a challenge for education and as an important attribute of future job profiles in retailing.

#### ***10. Which skills and capabilities will be of importance in the future?***

Analytical skills will be very much in demand. User knowledge of modern software tools and programmer and software developer capabilities are needed more than before. As business becomes more international, intercultural knowledge, empathy and languages are important. Motivation and flexibility were mentioned as well as sound and resilient competency in general education. The importance of a good educational background was stressed especially in reference to some developing countries where deficiencies in this field sometimes form an obstacle for employers and employees.

It is not only about skills and knowledge, but increasingly about competencies (= knowledge and skills + motivation, attitudes, values, dispositions).

The most important competencies include:

- Networking
- Communication
- Adaptability
- Flexibility
- Learning
- Innovation Management
- Creativity
- Openness for New Approaches
- Agility.

#### ***11. Which university careers and professional training would be worth considering in that context?***

Obviously there is not just one career or educational training that can achieve all requirements. More than ever it is necessary that individuals enter a continuous life-long learning process, looking for the bits and pieces they need to complete their qualification

profile. The range of feasible educational strategies is ample. For instance, someone can start with a university career in IT or business administration and then focus on the area of e-commerce or communication. Also, sales management or marketing could provide a good basis for the beginning. Subsequently candidates could try to concentrate on gaining analytical expertise and experience in using modern IT tools.

All experts agree that it is not possible to draw a single road map of how to develop one's own qualifications, but that there are many different paths with a good potential of success.

There will be a growing need for new job profiles such as:

- Online Marketing Manager, Online Merchandise Manager
- Community Manager, Social Media Manager
- Multichannel Manager, Mobile Marketing Manager
- SEO Manager
- Digital Manager
- Interactive Designer, Digital Web Designer
- Software Developer
- Cyber Security Manager.

***12. How are retailers going to satisfy their future demand for qualified employees? (education / training vs. recruiting / hiring)***

Most retailers, at least the bigger ones, have already understood that they only have a chance in finding all the employees they will need in the future if they engage in educational activities. To support employees who want to study further programs or to offer internal training and qualification programs nowadays form an important part of human resource development. Particularly e-business and modern communication provide many opportunities for distance learning, on-the-job qualification programs and interactive web-based workshops and seminars. It is crucial to create a learning culture within an organization that incorporates motivational aspects and provides incentives for the employees to develop their skills and qualifications.

***13. What is your appraisal of these options?***

To rely on recruiting only is very risky and could prove expensive and eventually not viable in order to meet retailers' demand of qualified staff. Therefore it is strongly recommended for retailers to engage in personnel development activities and to motivate employees to

continue to study and to improve their skills and capabilities. Educational in-house programs combined with the necessary flexibility required to allow employees to study for university careers while they continue working for their employers could be a successful path, too. To find possibilities of career development for their employees will also become more important for SMEs as they will have to compete with the big players (probably less relevant for very small family shops).

#### ***14. Are there any international biases worth considering?***

The situation in different countries and regions varies a lot. In some countries like in Germany, Scandinavia or Japan it is already difficult to find the employees needed. It does not seem that this situation is going to ease in the future.

In a group of other countries like in the US or in South America, parts of the EU and in China, India, and South Africa retailers currently have not too many difficulties hiring qualified staff, but particularly in China this can be expected to change because of demographics. In the US, as the economy seems to pick up, hiring skilled personnel is already becoming more difficult and in a range of EU countries like France, Spain and Italy, for example, some of the interviewees foresee a similar trend.

## 4.2. SUMMARY OF RETAIL EXPERTS' RESPONSES

1. Most important development at present is m-commerce.	People are using more and more mobile devices in order to access the internet. Thus an increasing number of online acquisitions are made by using such technology.
2. e-business still increases its importance.	It can be observed that e-business applications are still spreading and thus increasing their relevance for practically all companies.
3. e-payment systems are on the rise.	A growing number of consumers makes use of e-payment systems.
4. e-commerce will continue to grow, but will never replace offline retailing completely.	Particularly in developing countries but also in industrialised countries there still is a solid growth in e-commerce. But this trend will not lead to a situation in which people will do all their shopping online. Combining and integrating different channels is the challenge.
5. The competition for qualified employees will increase.	Many companies have a growing need of skilled employees with experiences in IT. As the number of such candidates grows rather slowly the competition among employers is going to intensify.
6. Most trends have to be regarded from a perspective that takes regional or country-specific characteristics into account.	Although e-business developments can be seen as a global trend, the situation in different countries and regions varies a lot. That requires a regional or country-specific perspective when analysing what is going on.
7. Knowledge of customers' preferences and customer-orientation are most important for success.	In highly competitive markets (as most markets are nowadays) it is extremely important to know much about the customers' requirements and to meet them.
8. General success factors could not be identified.	Success in retail and wholesale is rather complex to achieve as it depends on many aspects. Therefore it is not possible to identify factors, which always lead to that aim.
9. Cross-functional integration of knowledge gains importance.	Combining and integrating knowledge from different functional areas of a company is needed to successfully deal with the challenges resulting from e-business developments.
10. Competencies will become crucial.	The right combination of knowledge and skills plus motivation, attitudes, values and dispositions is required from the employees.
11. Education should combine business knowledge with analytical skills.	Sound education in business still is important but with the rise of IT applications and the resulting possibilities, qualifications and knowledge in analytics, statistics and math become more important.
12. The development of a corporate learning culture is important.	Employees should understand that they permanently have to improve their qualifications in order to keep pace with the developments.
13. Continuous improvement of employees' qualifications has to be secured.	The organizations have to provide the right framework, to allow for lifelong learning of their staff.
14. Competition levels on national labour markets vary significantly.	The difficulties in hiring skilled and qualified employees are very varied. In some countries where general unemployment is high it still seems to be not too difficult, while in these countries where the economy grows many companies complain about difficulties in hiring.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

The major findings are to be summarized in this final chapter of the report and implications for retailers and the retailing industry are named. Furthermore limitations of the study are shown and directions for further research are pointed out.

#### **5.1. SUMMARY OF RESULTS**

The study consists of three major steps towards the identification of developments in e-business and their consequences on skills requirements in retailing.

Generally e-business continues to grow dynamically and particularly the field of e-commerce shows a strong upwards trend. Anyhow it has to be conceded that the biggest growth rates can be observed in emerging markets, while in industrialized countries the rates are rather moderate. It is evident that these developments are affecting the retail industry.

Consequently individualization, use of mobile devices, cost containment, quality in logistics and security nowadays represent major challenges for the retailers.

In order to turn these challenges into successful business models for the retailers strategic planning is required. The first step in this direction is the identification of the most relevant development trends.

From today's perspective the following trends appear to be of major importance for retailers:

- Strong increases in use of mobile devices
- Redundancies in channel usage (multi-channelling, omni-channelling, no-line trade)
- Changing communication landscape (more individualization, growing impact of word-of-mouth resulting in viral processes, analysing internet buzz, strong need to entertain the target groups)
- Excellence and innovation in logistics becoming key success factors for retailers
- Proliferation of various forms of e-payments
- Growing importance of cyber security and data privacy issues.

These developments force retailers, particularly the brick and mortar trade, to adjust their business models, if they want to avoid continuously losing market share. That requires well trained and highly qualified staff. It also implies changes in existing job profiles. Therefore concerning skills, knowledge and qualification of retail employees the existing trends are:

- The share of positions for university graduates in retail is going to increase, not so much in salesforce but in administration and marketing (middle management).
- More theoretical knowledge particularly in quantitative subjects like math and statistics but also in programming, software and IT is required.
- There is a strong growth in demand for a qualification profile that combines a profound knowledge in social sciences (psychology, sociology, marketing, sales) with good qualifications in rather quantitative subjects (math, statistics, programming, software development).
- As communication's role in future retailing will become even more important and quite different from today's, an increasing demand for communication experts can be expected.

Consequently there is a growing need for a whole range of new job profiles in retailing, such as:

- Online Marketing Manager, Online Merchandise Manager
- Community Manager, Social Media Manager
- Multichannel Manager, Mobile Marketing Manager
- SEO Manager
- Digital Manager
- Interactive Designer, Digital Web Designer
- Software Developer
- Cyber Security Manager.

That has consequences for the retailers.

## **5.2. IMPLICATIONS FOR RETAILING**

As there already is a lot of competition among the big players in retailing for high potentials, it is not always possible to hire suitable personnel for these positions on the markets. That is particularly the case as the level of competition for such employees will increase even further. SMEs will in most cases not be able to attract the individuals with the highest qualifications.

Therefore the importance of personnel development for retailers will grow generally. In that context to establish a learning culture in an organization is to be considered as highly beneficial and could allow SMEs – at least to a certain extent – to develop their staff and make them fit for future challenges. Furthermore it would make such companies more attractive to new employees.

Besides skills and knowledge, competencies of employees are becoming extremely important. The developments in e-business and their effects on retailers particularly boost the demand of the following competencies:

- Networking
- Communication
- Adaptability
- Flexibility
- Learning
- Innovation Management
- Creativity
- Openness for New Approaches
- Agility.

### **5.3. LIMITATIONS OF THE STUDY AND DIRECTIONS OF FURTHER RESEARCH**

As a result the challenge for retailers exists not only in finding or developing the right employees but furthermore in providing the right organizational environment and the right management concepts in an organization. What organizations should look like and which management concepts would be adequate in order to deal with such issues have not been the topic of this study. Nevertheless these questions are highly important to be answered for retailers to demonstrate ways to successfully face that new field of intense competition. Further qualitative research should head in that direction.

Additionally, it has to be understood that this research project has been of a qualitative nature and there is no proof that the findings are representative for the whole retail industry. Thus, in order to provide more reliable data, it is highly recommended to continue researching the field of requirements for employees in retailing by applying a more

quantitative research design. Such investigation would also produce a broader and more reliable insight into the practices which are being applied by retailers and wholesalers.

As mentioned already the situation in different countries and regions is very varied. The focus of this research project was rather on a global basis. In order to be able to recommend specific strategies and measures for companies to do business in a particular country, more focused research in that special situation is needed.

Therefore it would be very interesting to develop a quantitative research design, for South Africa, for instance, and to conduct further research in that direction. Also a comparison of South Africa and neighbouring countries or with BRIC countries or industrialized countries would be of high interest, as it would allow recommendations for retailers and wholesalers of how to do business in these regions, and prepare them to face their competitors in South Africa or abroad in a better way.

Bigger samples are apt to produce more reliable data and it can be observed that results of quantitative studies find better acceptance in industry and in government authorities. So based on the findings presented the next step should consequently result in a quantitative study among South African retailers, associations in South African retailing industry and retailing experts in South Africa aimed at finding out about the level of consciousness in commerce and retailing around these challenges which have been identified and it could be shown whether or not companies go well prepared into the future of retailing.

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## APPENDIX 1:

# Hypotheses as the basis for the phrasing of questions

Hypothesis 1:

There is a strong impact of developments in e-business on companies and organizations.

Question 1:

To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

H 2: The dynamics of development and the amount of publications about e-business developments in a broad range of functional areas and their success potential lead to a high level of consciousness about these issues.

Q 2: Which are the main reasons of your opinion?

H 3: There are general developments to be identified in e-business.

Q 3: Which developments can be observed in e-business nowadays?

H 4: There are fields where future developments will be focused.

Q 4: Which future developments do you expect?

H 5: There is knowledge about innovations in e-business.

Q 5: Are you familiar with innovations on the field of e-business? (please name and explain!)

H 6: There is an important impact of e-business innovations on the success of companies.

Q 6: How about their importance and impact?

H 7: Innovations in e-business will generate additional benefits for customers (and suppliers).

Q 7: Which consequences will they have?

H 8: The impact of e-business innovations is huge.

Q 8: How about the impact of these consequences?

H 9: The innovations will generate sustainable effects.

Q 9: How permanent do you judge the impact of the innovations mentioned?

H 10: Nevertheless they will remain highly dynamic.

Q 10: How about their dynamics?

H 11: Some future developments are already being expected.

Q 11: Which future developments can be foreseen?

H 12: Some developments are very likely to become real.

Q 12: How about their probability of becoming real?

H 13: External factors are influencing the developments.

Q 13: Which external factors are involved?

H 14: The developments will affect some industries more than others.

Q 14: Which industries/sectors will be affected most?

H 15: The developments will affect some functional areas more than others.

Q 15: Which functional areas of organizations will be affected most?

H 16: There might be different development scenarios.

Q 16: Are there different scenarios concerning future developments in e-business?

H 17: The developments will affect various countries respectively regions differently.

Q 17: On a global level does it make sense to differentiate developments on a country- or region-specific level?

H 18: Specific sources are being used to obtain information about e-business.

Q 18: Which sources of information are you using concerning the field of e-business?

H 19: The various sources have a different importance.

Q 19: Which sources are most important for you?

H 20: Interviewees will recommend specific sources of information.

Q 20: Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

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### **Delphi Questionnaire E-Business CPUT 2014**

The topic of the interview is e-business. There are concepts of e-business to be found in theory. Most scholars agree that it has to do with electronic support of business processes. Taking a functional viewpoint, different areas can be distinguished. All of them form part of e-business. To name the most important ones:

- Marketing, Relationship Management, Communication
  - HR, Knowledge Management
  - Supply, Logistics, Production, Controlling
  - Finance, Assets, Payment Systems, Mobile Payment, Micro Payment
  - Cyber Security
  - Administration, (Project-) Management
  - Housekeeping, Facility Management
1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?
  2. Which are the main reasons of your opinion?
  3. Which developments can be observed in e-business nowadays?
  4. Which future developments do you expect?
  5. Are you familiar with innovations on the field of e-business? (please name and explain!)
  6. How about their importance and impact?
  7. Which consequences will they have?
  8. How about the impact of these consequences?
  9. How permanent do you judge the impact of the innovations mentioned?
  10. How about their dynamics?
  11. Which future developments can be foreseen?
  12. How about their probability of becoming real?
  13. Which external factors are involved?
  14. Which industries/sectors will be affected most?
  15. Which functional areas of organizations will be affected most?
  16. Are there different scenarios concerning future developments in e-business?

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?
18. Which sources of information are you using concerning the field of e-business?
19. Which sources are most important for you?
20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

### **Delphi Questionnaire E-Business CPUT 2014**

Im folgenden Gespräch möchten wir uns mit Ihnen über das Thema e-Business unterhalten. In der Theorie finden sich verschiedene Konzeptionen von e-Business. Weitgehendes Einvernehmen herrscht darüber, dass es sich dabei um die elektronische Unterstützung von Geschäftsprozessen handelt. Aus funktionaler Sicht lassen sich verschiedene Bereiche unterscheiden, die alle zum Thema e-Business dazugehören. Um nur die Wichtigsten zu nennen:

- Marketing, Beziehungsmanagement, Kommunikation
  - HR, Wissensmanagement
  - Beschaffung, Logistik, Produktion, Controlling
  - Finanzen, Assets, Zahlungssysteme, Mobile Payment, Micro Payment
  - Cyber Security
  - Administration, (Projekt-) Management
  - Housekeeping, Facility Management
1. Zunächst einmal ganz generell: Wie beurteilen Sie aktuell die Bedeutung von e-Business für Unternehmen und Organisationen?
  2. Würden Sie bitte Ihre Auffassung begründen?
  3. Welche Entwicklungen lassen sich im e-Business derzeit erkennen?
  4. Wie schätzen Sie deren künftigen Verlauf ein?
  5. Sind Ihnen konkrete Innovationen auf dem Gebiet e-Business bekannt? (Bitte nennen lassen!)
  6. Für wie wichtig halten Sie diese?
  7. Welche Auswirkungen werden sich daraus ergeben?
  8. Wie schätzen Sie das Gewicht dieser Auswirkungen ein?
  9. Für wie dauerhaft halten Sie die Bedeutung der angesprochenen Innovationen?
  10. Wie hoch ist die Dynamik in den jeweiligen Bereichen?
  11. Welche künftigen Entwicklungen lassen sich bereits jetzt erkennen?
  12. Wie steht es um deren Eintrittswahrscheinlichkeit?
  13. Welche externen Faktoren spielen in diesem Zusammenhang eine wichtige Rolle?

14. Welche Branchen / Sektoren werden in erster Linie betroffen sein?
15. In welchen Funktionsbereichen von Organisationen wird sich am meisten ändern?
16. Gibt es verschiedene Szenarien in Hinblick auf die Entwicklung im e-Business?
17. Lassen sich bei globaler Betrachtung verschiedene länder- oder regionsspezifische Entwicklungen erkennen und voneinander abgrenzen?
18. Wie informieren Sie sich über das Thema e-Business?
19. Welches sind aus Ihrer Sicht die wichtigsten Informationsquellen?
20. Was sollte man zum Thema e-Business generell oder auch zu einzelnen Teilbereichen unbedingt lesen, welche Veranstaltungen besuchen?



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  - HR, Wissensmanagement
  - Beschaffung, Logistik, Produktion, Controlling
  - Finanzen, Assets, Zahlungssysteme, Mobile Payment, Micro Payment
  - Cyber Security
  - Administration, (Projekt-) Management
  - Housekeeping, Facility Management
1. Zunächst einmal ganz generell: Wie beurteilen Sie aktuell die Bedeutung von e-Business für Unternehmen und Organisationen?  
e-B ist für alle UN wichtig, weil es in allen Phasen der Geschäftsabwicklung eine Rolle spielt
  2. Würden Sie bitte Ihre Auffassung begründen?  
Wird zum Standard wg. Effizienz- und Effektivitätsvorteilen, wichtige Grundvoraussetzung für praktisch alle Geschäftsmodelle, seit mehr als zehn Jahren machen es alle
  3. Welche Entwicklungen lassen sich im e-Business derzeit erkennen?  
Neue Wertschöpfung bzw. Ersatz alter Modelle (z.B. im Handel o. Reisebranche), e-B Logistik, Versand, Post sind die nächsten, Forschung findet immer mehr im Netz statt, z.B. e-Business Simulationen  
z.T. Substitution z.T. komplett neue Märkte, z.B. online Vermarktung, Service und Wartung von Netzinfrastruktur, e-Handel, Intermediation vs. Disintermediation, beides kommt vor
  4. Wie schätzen Sie deren künftigen Verlauf ein?  
Marktplätze \_\_> Konzentration z.B. Hotelvermarktung booking.com

Wertschöpfungskette wird aufgespannt und danach wieder zusammengefasst,  
 die Zwischenakteure können Partner, Wettbewerber oder Dienstleister sein  
 Metasearcher können Wettbewerber oder Partner sein Thema e-communication  
 Gds general distribution services z.B. google od. Trivago  
 Reisebranchenentwicklung findet auch in ganz anderen Bereichen statt, z.B.  
 Reiseinformationsseiten, Erfahrungsberichte  
 Die Grenzen zwischen Partnern und Wettbewerbern verschwinden  
 Wertschöpfungsketten wird komplexer z.B. durch das Angebot zusätzlicher  
 Beratungsleistung  
 Zunehmende Spezialisierung auf einzelne Stufen der Wertschöpfungskette  
 Anzahl der Player nimmt zu  
 Spezialisierte Geschäftsmodelle für Extensivkauf od. verkürzte Wege Spontankauf  
 Die eher historische Konzentration auf wenige Anbieter wird durch e-commerce verändert  
 und erlaubt eine Ausweitung der Suche über viele versch. Anbieter hinweg  
 Fokussierung und Individualisierung wird möglich  
 Long-tail Vermarktung nimmt immer mehr zu, z.B. e-bay Kleinanzeigen

5. Sind Ihnen konkrete Innovationen auf dem Gebiet e-Business bekannt? (Bitte nennen lassen!)
  - Endgeräte smart phone, pad, Uhr, Brille...
  - Nutzerverhalten lean front (notebook) lean back (pad)
  - Ubiquität Internet nimmt zu
  - Fernsehen z.B. chrome cast (stick) zur Internetnutzung
  - Lean back nimmt zu → Erlebnischarakter des Interneteinkaufs
  - Merging Unterhaltung und Kauf / Information bislang v.a. bei Mode und Auto
  - Besser Darstellungsmöglichkeiten 3D
  - Komplexitätsbewältigung
6. Für wie wichtig halten Sie diese?
  - Massive Auswirkung Quelle → Amazon
7. Welche Auswirkungen werden sich daraus ergeben?
  - Geschäftsmodelle müssen Mehrwert generieren, z.B. Hotelauswahl anhand von immer mehr Selektionsmerkmalen
8. Wie schätzen Sie das Gewicht dieser Auswirkungen ein?
  - immens
9. Für wie dauerhaft halten Sie die Bedeutung der angesprochenen Innovationen?
  - Sehr dauerhaft: Intermediation-Disintermediation, Zusatznutzen, social benefit → gegenseitige Empfehlung
10. Wie hoch ist die Dynamik in den jeweiligen Bereichen?
  - Sehr hohe Dynamik, Innovationstreiber sind die Großen MS, google, ebay, amazon, apple. Samsung eher nicht
11. Welche künftigen Entwicklungen lassen sich bereits jetzt erkennen?
  - Zahlungsverkehr mehr über guthabenbasierte Systeme paypal, bitcoin
  - Cost per click modelle stat Provision
  - Analytische Aspekte gewinnen stark an Bedeutung
  - Mehr Wissen über traffic wird erforderlich auch bei longtail Produkten
12. Wie steht es um deren Eintrittswahrscheinlichkeit?

Mit Sicherheit zu erwarten Analytik Grundlagen auch bei Facebook (social graph)  
Komplette Veränderung der Wertigkeit von Informationen, wie kommen Empfehlungen zustande ?

Dataminingtechniken nicht nur zur Steuerung von Verständnis d. Empfehlung sondern auch zur Kundenanalytik (CRM)

Oberstes Ziel Kunden halten statt für neue Kunden immer höhere click Kosten zahlen

Analytik von höchster Relevanz

Prozesse, soziales Umfeld, eigenes Verhalten (RFM) recency, frequency monetary

13. Welche externen Faktoren spielen in diesem Zusammenhang eine wichtige Rolle?

Nutzerakzeptanz, Datenschutz

Bei Nutzen werden Daten zur Verfügung gestellt, Nutzenprimat, statt Privatsphäre

Datenwolke google, cookies

Schutz durch Politik oder nicht?

Offenheit von Systemen , polit. Entwicklungen, Konflikte, Zensur, Nutzer entscheiden

Nutzer Mehrwert statt Datenschutz

Location based services

14. Welche Branchen / Sektoren werden in erster Linie betroffen sein?

Handel

Bei Elektronisierbarkeit von Prozessen

IT Strukturen ;hard- und Software

Physische Grenzen z.B. i.d. Produktion auch DL wegen Integration des externen Faktors

Dagegen: Handarbeit, Unikate, Forschung und Entwicklung

15. In welchen Funktionsbereichen von Organisationen wird sich am meisten ändern?

Viel: Abwicklung von Geschäftsprozessen, Marketing

Wenig HR, Führung

16. Gibt es verschiedene Szenarien in Hinblick auf die Entwicklung im e-Business?

Weniger Szenarien eher eindeutig f.d. nächsten 5-10 Jahre, große Rolle von masterminds und Experten in den einzelnen Bereichen, Zuckerberg: erst 1% seines Geschäftsmodells realisiert

17. Lassen sich bei globaler Betrachtung verschiedene länder- oder regionsspezifische Entwicklungen erkennen und voneinander abgrenzen?

Globale Entwicklung aber regionale Akteure, Facebook – weibo, xing --- linkedin

18. Wie informieren Sie sich über das Thema e-Business?

Klass. Medien, Geschäftskontakte

19. Welches sind aus Ihrer Sicht die wichtigsten Informationsquellen?

ausprobieren

20. Was sollte man zum Thema e-Business generell oder auch zu einzelnen Teilbereichen unbedingt lesen, welche Veranstaltungen besuchen?

Evtl . techcrunch



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- Marketing, Beziehungsmanagement, Kommunikation
- HR, Wissensmanagement
- Beschaffung, Logistik, Produktion, Controlling
- Finanzen, Assets, Zahlungssysteme, Mobile Payment, Micro Payment
- Cyber Security
- Administration, (Projekt-) Management
- Housekeeping, Facility Management

1. Zunächst einmal ganz generell: Wie beurteilen Sie aktuell die Bedeutung von e-Business für Unternehmen und Organisationen?  
e-business: Webtechnologienutzung über devices, Relevanz für alle Bereiche, zentrale Bedeutung, unverzichtbar
2. Würden Sie bitte Ihre Auffassung begründen?  
Preisgünstige Effizienzsteigerung, ubiquitär verfügbar, universell kompatibel im Kommunikationsbereich, gute Anpassungsmöglichkeit an Partnerwünsche, Innovationsbezug
3. Welche Entwicklungen lassen sich im e-Business derzeit erkennen?  
Mobile, Internet of things, m2m, Leistungssteigerung, sensorik
4. Wie schätzen Sie deren künftigen Verlauf ein?  
Mehr Personalisierung im Marketing, als Gegenteil von Spam; verbessertes targeting, umfassendere Serviceleistungen, automat. Bestellung, erhebliche Effizienzsteigerung, after- sales-service wird vielleicht wichtigster Bereich, aufgrund guter Margen starke Service/after-

sales Orientierung, ggf. führt das auch zu längeren Produkt-Lebenszyklen, wenn am Service und nicht am Produkt verdient wird. Insgesamt sinken dann auch die Preise, Statuseffekte nehmen ab, sharing wird besser möglich

5. Sind Ihnen konkrete Innovationen auf dem Gebiet e-Business bekannt? (Bitte nennen lassen!)

Technische Innovationen, 3-D Druck, RFID oder sonstige Produktkennung z.B. QR nur Zwischenlösung, ggf. Transport fällt weg (3\_D Druck vor Ort) dann lassen sich Zollschranken kaum mehr realisieren, Lagerhaltung entfällt

Anwendungsinnovationen, sehr viele z.B. sensorik, m2m, neue Geräte

6. Für wie wichtig halten Sie diese?

Technolog. Entwicklungen müssen in Anwendungen umgesetzt werden, das ist die entscheidende Herausforderung; die Welt kommt auf Dich zu... aktuelle Entwicklungen betrachten geschieht fast automatisch...

7. Welche Auswirkungen werden sich daraus ergeben?

Zunehmende Dienstleistungseffizienz, Verteilungsfragen der Gewinne zwischen Hersteller, Handel Service; Angstreduzierung in Hinblick auf Mißbrauch; globale Gesetzgebung wird erforderlich

8. Wie schätzen Sie das Gewicht dieser Auswirkungen ein?

Schwerpunkte der Entwicklung: M2M, 3D Druck Hardware Software

9. Für wie dauerhaft halten Sie die Bedeutung der angesprochenen Innovationen?

Sehr langanhaltend, falls keine globale Datenkatastrophe, geringe Sensibilität der Konsumenten in Hinsicht Gefahrenpotenziale

10. Wie hoch ist die Dynamik in den jeweiligen Bereichen?

Hohe Dynamik, bremsender Faktor ist Verbraucher, seine Gewohnheiten, Anpassungszeiten, auch e user sind konservativ

11. Welche künftigen Entwicklungen lassen sich bereits jetzt erkennen?

Evtl. 3D Druck replicator, Automatisierung in neuen Bereichen, modulare Konzepte, die Gewohnheiten der Verbraucher beeinflussen die Entwicklung, Bequemlichkeit, Personalisierung von Produkten, kleinste Losgrößen werden wirtschaftlich, fab revolution

12. Wie steht es um deren Eintrittswahrscheinlichkeit?

Wer etwas möchte bekommt es auch, oftmals sind die Anwendungen von bekannten technologischen Innovationen noch nicht entdeckt

13. Welche externen Faktoren spielen in diesem Zusammenhang eine wichtige Rolle?

Rechtliche Globalisierung, Urheberrechtsschutz im Wandel d.h. künftig kaum haltbar

14. Welche Branchen / Sektoren werden in erster Linie betroffen sein?

Alle, Energieproblematik im IT Bereich wird überschätzt, aber Rohstoffknappheit, seltene Erden immens wichtig, Simplifizierung, Standardisierung in der Bedienung, mehr Usersupport

15. In welchen Funktionsbereichen von Organisationen wird sich am meisten ändern?

Marketing, Service, HR wg. Rückstand bei Anwendungen in diesen Bereichen, Produktion ist bereits optimiert, Voraussetzung Prozessmodellierung, extreme Prozessorientierung, größere Agilität von Unternehmen, Ablauforganisation wird zum bestimmenden Faktor

16. Gibt es verschiedene Szenarien in Hinblick auf die Entwicklung im e-Business?

Hauptentwicklung relativ klar, es sei den es käme zu Katastrophen im IT- Bereich

17. Lassen sich bei globaler Betrachtung verschiedene länder- oder regionsspezifische Entwicklungen erkennen und voneinander abgrenzen?  
Auch ärmere Regionen partizipieren, Schwellenländer Entwicklungsmotor, Kosten der Geräte stark nach unten z.B. wg. Smartphones, Infrastruktur immer mehr verfügbar, reiche Regionen als Vorreiter die ärmeren kommen nach, Marktsättigung in Industrieländern, Gerätepreise gehen gegen null, vielleicht braucht man irgendwann keine Endgeräte mehr weil Zugang überall möglich über vorhandene Infrastruktur und Nutzererkennung
18. Wie informieren Sie sich über das Thema e-Business?  
v.a. Internet
19. Welches sind aus Ihrer Sicht die wichtigsten Informationsquellen?  
Klassische Medien, FZ, Messen, Einzelhandel, apple store, Verhältnis online offline Handel wird sich noch öfter ändern, z.B. Apotheke, Neuerfindung von Handelsfunktionen
20. Was sollte man zum Thema e-Business generell oder auch zu einzelnen Teilbereichen unbedingt lesen, welche Veranstaltungen besuchen?  
Trendforschungsunternehmen, trend one in Hamburg



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- Finanzen, Assets, Zahlungssysteme, Mobile Payment, Micro Payment
- Cyber Security
- Administration, (Projekt-) Management
- Housekeeping, Facility Management

1. Zunächst einmal ganz generell: Wie beurteilen Sie aktuell die Bedeutung von e-Business für Unternehmen und Organisationen?

Zunehmender Bedeutungsanstieg auch in Bereichen wie Business2Admin und Business2government, offline wird zur Ausnahme

Definition von e-business sollte begrifflich bei der Unterstützung von wirtschaftl.

Transaktionen durch IT ansetzen

Medien Journalismus Forschung derzeit stark betroffen, z.B. research gate als social media plattform für Forscher

2. Würden Sie bitte Ihre Auffassung begründen?

Wirtschaftliche Begründung = Effizienzsteigerung, daneben Bequemlichkeit, longtail Effekte, Transaktionskostensenkung

3. Welche Entwicklungen lassen sich im e-Business derzeit erkennen?

Big Data, Analytics, one-to-one Segmentierung riesige Datenmengen erhöhen die Auswertungskomplexität

4. Wie schätzen Sie deren künftigen Verlauf ein?  
Offlinehandel bekommt zunehmend Probleme, Konvergenz von Online-offline bzw. multichannel Nutzung
5. Sind Ihnen konkrete Innovationen auf dem Gebiet e-Business bekannt? (Bitte nennen lassen!)  
z.B. ibeacons zur Erfassung der individuellen Telefonerkennung, Speicherung von Verhaltensdaten (steht so und so lange vor diesem und jenem Regal) und Austausch der Nutzerdaten mit anderen Geschäften, außerdem in-shop navigation  
empf. Paper Bradlow, Faden in marketing science?  
Mobile zahlssysteme, RFID, nearfieldcommunication NFC für mobile payment  
Langfristig auch augmented reality  
Erkennung von Lebensmittel über barcode \_> senden zusätzlicher Info z.B.  
Ampelanwendung zur Empfehlung/Ablehnung bei Lactointoleranz  
Auch Apps zum Preisvergleich, Produktvergleich, Weiterleitung an Nutzerforen user groups
6. Für wie wichtig halten Sie diese?  
Sehr wichtig in zweierlei Hinsicht: für Anwender/Konsumenten v.a. Datenschutz und entspr. Auswirkungen; für Anbieter/Händler Umgang mit gr. Datenmengen Auswertung und deren Verarbeitung
7. Welche Auswirkungen werden sich daraus ergeben?  
Zahlungssysteme werden sich erst im microbereich (kleinbeträge) durchsetzen und dann weiterverbreiten. Kostenreduzierung Effizienzsteigerung spielt eine große Rolle, weitere Auswirkung Verzicht auf Zahlvorgang z.B. an Kasse führt zu Beschleunigung, leistungsfähige RFID zur Abwicklung von Zahlvorgängen im Supermarkt/Lebensmittelbereich nach wie vor viel zu teuer  
Supermarkt goes online Problem: Versand v. Frischprodukten und Annahme von Warensendungen (Idee Kühlbox im Garten für den Postboten)
8. Wie schätzen Sie das Gewicht dieser Auswirkungen ein?  
Derzeitiger Hype payment und Big Data, nimmt wahrscheinlich wieder etwas ab (Hype cycle gardner)
9. Für wie dauerhaft halten Sie die Bedeutung der angesprochenen Innovationen?  
nach Anpassung dauerhaft
10. Wie hoch ist die Dynamik in den jeweiligen Bereichen?  
hohe Dynamik, vor allem wenn einzelne Player agieren (können), sobald mehrere Akteure involviert sind und sich abstimmen müssen, tritt eine Verzögerung ein
11. Welche künftigen Entwicklungen lassen sich bereits jetzt erkennen?  
Bei Zahlungssystemen geht es v.a. um die Transaktionsabwicklung hier engagieren sich Kartenfirmen wie Visa, google, apple, aber auch
12. Wie steht es um deren Eintrittswahrscheinlichkeit?  
Zu erwarten allenfalls Details sind noch offen
13. Welche externen Faktoren spielen in diesem Zusammenhang eine wichtige Rolle?  
Entwicklung und Durchsetzung von Standards, sowie Datenschutz
14. Welche Branchen / Sektoren werden in erster Linie betroffen sein?

## Handel

15. In welchen Funktionsbereichen von Organisationen wird sich am meisten ändern?  
Bislang b2b als Vorreiter, b2c zieht nun nach v.a. Auto und Pharma Abläufe werden transparenter gemacht z.B. supply chain
16. Gibt es verschiedene Szenarien in Hinblick auf die Entwicklung im e-Business?  
Langfristig Szenarien: z.B. Datenschutz > unwichtig mobile payment setzt sich durch, oder aber es kommt doch noch zu einer Sensibilisierung Durchsetzung verzögert sich oder wird gar verhindert
17. Lassen sich bei globaler Betrachtung verschiedene länder- oder regionsspezifische Entwicklungen erkennen und voneinander abgrenzen?  
Unbedingt z.B. Sonderrolle Afrika, schlechte IT Infrastruktur nur begrenzte Internetnutzung (AT Karney)
18. Wie informieren Sie sich über das Thema e-Business?  
Wiss. Lit. IT Wi informatik, blogs
19. Welches sind aus Ihrer Sicht die wichtigsten Informationsquellen?  
Zeitschrift Business Information Systems and Engineering oder deutsch  
Wirtschaftsinformatik, Information Systems Research (ISR) Journal, Management Information systems Quarterly (MISQ) Journal, Electronic markets
20. Was sollte man zum Thema e-Business generell oder auch zu einzelnen Teilbereichen unbedingt lesen, welche Veranstaltungen besuchen?  
ICIS bzw. ECIS International / European Conference on Information Systems  
Lehmann/Bächle e-business auch Laudon, Kenneth o.s.ä. Herr Daurer schickt noch weitere Quellenangaben... sonst nochmal anfragen!!



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[klaiber@dhbw-ravensburg.de](mailto:klaiber@dhbw-ravensburg.de)**Delphi Questionnaire E-Business CPUT 2014**

Im folgenden Gespräch möchten wir uns mit Ihnen über das Thema e-Business unterhalten. In der Theorie finden sich verschiedene Konzeptionen von e-Business. Weitgehendes Einvernehmen herrscht darüber, dass es sich dabei um die elektronische Unterstützung von Geschäftsprozessen handelt. Aus funktionaler Sicht lassen sich verschiedene Bereiche unterscheiden, die alle zum Thema e-Business dazugehören. Um nur die Wichtigsten zu nennen:

- Marketing, Beziehungsmanagement, Kommunikation
  - HR, Wissensmanagement
  - Beschaffung, Logistik, Produktion, Controlling
  - Finanzen, Assets, Zahlungssysteme, Mobile Payment, Micro Payment
  - Cyber Security
  - Administration, (Projekt-) Management
  - Housekeeping, Facility Management
1. Zunächst einmal ganz generell: Wie beurteilen Sie aktuell die Bedeutung von e-Business für Unternehmen und Organisationen?  
Der Höhepunkt des Hypes war bereits 2000, jetzt höherer Reifegrad und bessere Qualität der gesamten Entwicklungen. Aber immer noch von großer Bedeutung für Unternehmen
  2. Würden Sie bitte Ihre Auffassung begründen?  
Technologien sind reifer, gerade auch was die Sicherheit angeht gab es große Fortschritte. Die Experimentierphase ist vorbei. Es bestehen fundierte Kenntnisse bei Anbietern und Anwender.
  3. Welche Entwicklungen lassen sich im e-Business derzeit erkennen?  
-Open... Technologien, verfügbar machen von Daten, so macht z.B. Tesco Retaildaten verfügbar, externe Partner machen Auswertungen aus derartigen Kooperationen können sich sehr interessante Anwendungen ergeben.  
-Interpretationen der Daten, gerade auch die Datenschutz-Thematik wird auch von Privat-Kunden weniger kritisch gesehen (v.a. im anglo-amerikanischen Raum), v.a. falls Daten ohne Namensangaben ausgewertet werden, also Anonymisierung/keine Personifizierung

4. Wie schätzen Sie deren künftigen Verlauf ein?  
Openness wird noch stark zunehmen, bildet die Grundlage für komplett neue Services, die Voraussetzungen dafür: Trust, Anonymität, verantwortungsvoller Umgang mit den Daten
5. Sind Ihnen konkrete Innovationen auf dem Gebiet e-Business bekannt? (Bitte nennen lassen!)  
Zusammenarbeit mit UN auf Basis zunehmender Elektronifizierung, Vorreiter e-Banking, was weit über Kontoführung hinausgeht. Es ergeben sich Online-Beziehungen; weitere Bereiche: Retailing, Health Care, Behörden, e-government, Abgabentrachtung online, im kommunalen Bereich; Heutzutage als Ersatz für trad. Kommunikationswege, das wird sich in allen Sektoren verbreiten, B2B ist Vorreiter und wird v.a. auch für KMU interessant, jetzt folgt B2C  
Supply chain Netzwerke werden aufgebaut, mit Partnern nun tatsächlich möglich, da die Elektronifizierung bereits erfolgt ist
6. Für wie wichtig halten Sie diese?  
Sehr große Bedeutung, man muss dabei sein
7. Welche Auswirkungen werden sich daraus ergeben?  
Bestimmte Kanäle (i.d. Kommunikation) werden ersetzt, die Distribution verändert sich komplett, der Customer Value verändert sich, Beziehungen zu UN und Organisationen verändern sich, neue Formen der Segmentierung bzw. Individualisierung werden möglich
8. Wie schätzen Sie das Gewicht dieser Auswirkungen ein?  
DL können persönlich werden (Individualisierung) enorme Auswirkungen
9. Für wie dauerhaft halten Sie die Bedeutung der angesprochenen Innovationen?  
Anhaltende Tendenz
10. Wie hoch ist die Dynamik in den jeweiligen Bereichen?  
Die Dynamik ist nicht mehr so hoch, dafür ist die Entwicklung aber nachhaltiger, es ergeben sich Auswirkungen auf strategischer Ebene für Organisationen und nicht nur wie bislang auf operativer
11. Welche künftigen Entwicklungen lassen sich bereits jetzt erkennen?  
Analytics, Transaktionsdaten, bessere Einbindung in Entscheidungsprozesse; das war bislang nur im operativen Bereich erfasst nun aber auch den strategischen
12. Wie steht es um deren Eintrittswahrscheinlichkeit?  
Big data kommt sicher, daraus folgt dann analytics und daraus werden Strategien entworfen; vieles ist derzeit aber noch offen.  
Also z.B. gesünderes verantwortungsvolleres Leben führt zu Vorteilen (z.B. KFZ vers. Krankenvers.), privacy spielt hier aber eine große Rolle
13. Welche externen Faktoren spielen in diesem Zusammenhang eine wichtige Rolle?  
Öffentliches Bewusstsein gegenüber Privacy, im anglo-amerik. Bereich weniger Zurückhaltung als in D, vielleicht ist das aber auch nur vorübergehend so und es folgt eine stärkere Betonung v. privacy; kulturelle Akzeptanz, technolog. Möglichkeiten, gerade hier sind Entwicklungen neu und vielfach unvorhersehbar, z.B. bei Hardware, Devices, wie z.B. 3D Printer
14. Welche Branchen / Sektoren werden in erster Linie betroffen sein?  
DL insgesamt, FinanzDL im Besonderen, 3D Printing, Zahntechnik, auch im Produktgeschäft
15. In welchen Funktionsbereichen von Organisationen wird sich am meisten ändern?

Verwaltung, Finance, Admin., Customer Contact, Bewerbungen, Training, Logistics; faktisch fast alle Bereiche, etwas weniger die physischen, alles was in ERP Systemen Eingang finden kann

16. Gibt es verschiedene Szenarien in Hinblick auf die Entwicklung im e-Business?  
Für UN wohl keine Szenarien notwendig, es ist auch keine Grundsatzentscheidung, Elektronifizierung muss nicht sofort und vollständig gemacht werden man kann auch später erst partizipieren (follower statt pionier); Für die Politik allerdings sind Szenarien sehr wichtig, z.B. geht es um awareness in Bezug auf die Entwicklungen in der Ausbildung zu verankern und in die Forschung zu integrieren
17. Lassen sich bei globaler Betrachtung verschiedene länder- oder regionsspezifische Entwicklungen erkennen und voneinander abgrenzen?  
Höhere Akzeptanz im anglo-amerik. Bereich, aber auch Asien sehr stark, BRIC, es gibt erhebliche regionale Unterschiede z.B. Asien vs. Europa, weniger länderspezifisch; aber es bestehen Anpassungserfordernisse
18. Wie informieren Sie sich über das Thema e-Business?  
Google scholar, textbooks, FZArtikel, Kontakte mit UN, Konferenzen
19. Welches sind aus Ihrer Sicht die wichtigsten Informationsquellen?  
s.o.
20. Was sollte man zum Thema e-Business generell oder auch zu einzelnen Teilbereichen unbedingt lesen, welche Veranstaltungen besuchen?  
Firmenkontakte, Big data analytics

#### ANMERKUNG:

Es geht darum, die Kommunikation zu gestalten, ein weiterer wichtiger Bereich, um vorne zu ergänzen ist Kowledgemanagement

### **Delphi Questionnaire E-Business CPUT 2014**

The topic of the interview is e-business. There are concepts of e-business to be found in theory. Most scholars agree that it has to do with electronic support of business processes. Taking a functional viewpoint, different areas can be distinguished. All of them form part of e-business. To name the most important ones:

- Marketing, Relationship Management, Communication
- HR, Knowledge Management
- Supply, Logistics, Production, Controlling
- Finance, Assets, Payment Systems, Mobile Payment, Micro Payment
- Cyber Security
- Administration, (Project-) Management
- Housekeeping, Facility Management

1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

Big impact, very important

2. Which are the main reasons of your opinion?

Cost saving potential, more flexibility

3. Which developments can be observed in e-business nowadays?

Widespread usage in all functional areas, mobile devices, highly dynamic developments, technological innovations

4. Which future developments do you expect?

Individualization, increase in amount of data, security will remain important

5. Are you familiar with innovations on the field of e-business? (please name and explain!)

More electronic information exchange, between institutions (b2b) was the pacemaker now more consumer involvement

6. How about their importance and impact?

Particularly the usage of electronic information exchange with consumers will gain importance and allow for more adaptation and individualization.

7. Which consequences will they have?

Communication and Distribution is going to change, one-to-one marketing becomes feasible even in mass markets.

8. How about the impact of these consequences?

There is a big challenge for companies to make use of these changes, great potential for new services

9. How permanent do you judge the impact of the innovations mentioned?

The relevance can be expected to persist at least for the next year

10. How about their dynamics?

The dynamics depend strongly on the sector of industry, particularly in retailing the dynamics are huge

11. Which future developments can be foreseen?

e-business application particularly in distribution and communication becomes a strategic issue

12. How about their probability of becoming real?

High probability

13. Which external factors are involved?

Security issues and legal framework are important, some future developments are very hard or almost impossible to predict, overall in the technological field

14. Which industries/sectors will be affected most?

Especially service industry, trade industry, too, for the moment, future remains rather unclear

15. Which functional areas of organizations will be affected most?

Almost all areas

16. Are there different scenarios concerning future developments in e-business?

Political and legal scenarios

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?

Industrialized countries, China,

18. Which sources of information are you using concerning the field of e-business?

The Economist, special interest journals IT and business, online media

19. Which sources are most important for you?

See above

20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

Business contacts on fairs and congresses



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- Administration, (Project-) Management
- Housekeeping, Facility Management

1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

Depends very much on the specific business model

2. Which are the main reasons of your opinion?

Business processes can vary significantly as the number of contacts, too. That leads to different situations for businesses.

3. Which developments can be observed in e-business nowadays?

Internet usage is generally common, but the kind of use can be very different depending on the specific organization and industry

4. Which future developments do you expect?

Privacy has an increasing impact, data security

5. Are you familiar with innovations on the field of e-business? (Please name and explain!)

Because of process integration the efficiency can be increased, allows for more flexibility

6. How about their importance and impact?

ERP systems and functional integration in organizations are important.

7. Which consequences will they have?

Concentration in many industries will increase.

8. How about the impact of these consequences?

It varies depending on the specific business model.

9. How permanent do you judge the impact of the innovations mentioned?

It is an ongoing process with its specific developments, hard to forecast.

10. How about their dynamics?

Integration of functions becomes more important.

11. Which future developments can be foreseen?

That depends on the specific business model of a company in many organizations IT usage will grow but there also exist exceptions.

12. How about their probability of becoming real?

The trend is likely to continue.

13. Which external factors are involved?

The development of the world economy and technological trends are important.

14. Which industries/sectors will be affected most?

All kinds of services, mass markets

15. Which functional areas of organizations will be affected most?

Sales, marketing, communication

16. Are there different scenarios concerning future developments in e-business?

Depends on politics

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?

According to the economic systems in different countries and cultural aspects

18. Which sources of information are you using concerning the field of e-business?

Discussions with colleagues, conferences print media, internet

19. Which sources are most important for you?

Personal contacts

20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

ITEXPO, Las Vegas, business journals

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- Supply, Logistics, Production, Controlling
- Finance, Assets, Payment Systems, Mobile Payment, Micro Payment
- Cyber Security
- Administration, (Project-) Management
- Housekeeping, Facility Management

1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

Very important and solid/stable trend, not like 2000, because of advances in technology and security.

2. Which are the main reasons of your opinion?

Strong increases in efficiency and effectiveness possible. Adapting to customers' needs becomes easier. Can boost innovativeness.

3. Which developments can be observed in e-business nowadays?

Internet widely used, openness of software and data, informational exchange and sharing

4. Which future developments do you expect?

Concentration of web-based offer, more interaction and cooperation along the supply chain. Long-tail effects. Problems for brick-and-mortar trade. Openness offers potential.

5. Are you familiar with innovations on the field of e-business? (Please name and explain!)

Online communication leads to online relations, ibeacons or other LBS will develop. NFC, RFID, 3-D printing

6. How about their importance and impact?

Very important, must participate

7. Which consequences will they have?

Increased value-added, can generate new services, binding legal framework required on a global level

8. How about the impact of these consequences?

Big changes in distribution and communication ahead.

9. How permanent do you judge the impact of the innovations mentioned?

Innovations will continue to develop, privacy concerns partly remain low particularly in Anglo-Saxon countries.

10. How about their dynamics?

The speed of change continues to be very high.

11. Which future developments can be foreseen?

Analytics become more important, big data and usage of it, automatization in new fields not only in production

12. How about their probability of becoming real?

New analytics tools will definitely be developed. How to build strategies on this basis becomes the central issue.

13. Which external factors are involved?

Public opinion plays a very central role particularly concerning privacy/security matters. There seems to be a cultural bias UK/USA vs. Central/Northern Europe. Availability of LBS.

14. Which industries/sectors will be affected most?

B2b is leading the trend b2c follows, automotive, pharmaceutical

15. Which functional areas of organizations will be affected most?

Marketing management, HR. services are changing

16. Are there different scenarios concerning future developments in e-business?

No scenarios needed, direction is clear unless .th. very big and unexpected happens

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?

Development takes place on a global level, some lead and some follow but the direction is the same. May be different in Africa.

18. Which sources of information are you using concerning the field of e-business?

IT journals, ICIS, e-Commerce expo

19. Which sources are most important for you?

Friends and business contacts

20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

German Journal ct



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- HR, Knowledge Management
- Supply, Logistics, Production, Controlling
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- Cyber Security
- Administration, (Project-) Management
- Housekeeping, Facility Management

1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

Highly important in all phases of business contacts. B2a and b2g, as well journalism and research

2. Which are the main reasons of your opinion?

Ubiquity of offers and efficiency of processes. Convenience is another aspect that influences people's behavior.

3. Which developments can be observed in e-business nowadays?

People seem to care less and less about privacy, but that is not the case for companies. Spying can become an issue, therefore data security is important. Distribution channels change

4. Which future developments do you expect?

Big data and analytics, statistics, internet of things, tourism industry has changed completely, currently retail, logistics in the future?

5. Are you familiar with innovations on the field of e-business? (Please name and explain!)

Augmented reality is very complex and costly but has potential to change the shopping landscape completely, so does 3-D printing. Another field is sensor technology

6. How about their importance and impact?

The change happens and you should be part of it. For consumers privacy matters, for suppliers analytics and evaluation is central.

7. Which consequences will they have?

Struggle for profit share between producer and distributor. Some communication channels loose importance.

8. How about the impact of these consequences?

A lot of things will change, micro payment m2m are important.

9. How permanent do you judge the impact of the innovations mentioned?

Trend continues as long it produces (additional) benefits.

10. How about their dynamics?

The big players in IT keep the dynamics high.

11. Which future developments can be foreseen?

New grounds for automation small production batches become feasible.

12. How about their probability of becoming real?

Analytics and handling of data represent areas where new developments will definitely take place. As well the mentioned changes in production.

13. Which external factors are involved?

What the public thinks and how people behave are of central influence. Legal standards needed.

14. Which industries/sectors will be affected most?

Currently retail in the future may be transport and other services, but also production.

15. Which functional areas of organizations will be affected most?

Production, marketing, management, Qualification / HR

16. Are there different scenarios concerning future developments in e-business?

Qualification resp. availability of qualified staff could present a bottleneck.

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?

Cultural impact is significant and makes differentiation necessary.

18. Which sources of information are you using concerning the field of e-business?

Int. Journal of Electronic Business, The Economist, Internetworld, Munich, Internet

19. Which sources are most important for you?

Colleagues and business contacts / consultants

20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

Fairs and conferences

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- HR, Knowledge Management
- Supply, Logistics, Production, Controlling
- Finance, Assets, Payment Systems, Mobile Payment, Micro Payment
- Cyber Security
- Administration, (Project-) Management
- Housekeeping, Facility Management

1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

Huge relevance, all companies affected, today more stable not like 2000, b2a, b2g, media, different functions of orgs

2. Which are the main reasons of your opinion?

Cost saving potential but can take some time to realise. Image effects possible. Individualization.

3. Which developments can be observed in e-business nowadays?

Privacy of data and security will become a big issue, soon. Trust will become more important, particularly in b2c. Big data and analytics. Web-based research.

4. Which future developments do you expect?

Security, transparency of software, openness, improved targeting, automatized ordering already is a trend.

5. Are you familiar with innovations on the field of e-business? (Please name and explain!)

Not only e-banking but financial services online. LBS, micro payment, payment systems in general, providing real time price information and other product related information, 3-D printing, shopping and entertainment becomes one online and offline

6. How about their importance and impact?

Privacy and security of data will have a huge impact on consumers' behavior. Trust is very important.

7. Which consequences will they have?

To build trust and proof you deserve it will become crucial, for e-commerce success. Changes in distribution can be expected.

8. How about the impact of these consequences?

The distribution landscape will change completely.

9. How permanent do you judge the impact of the innovations mentioned?

Rather continuous long term development, but probably some surprises.

10. How about their dynamics?

The buyers are rather reluctant if it comes to change their behavior, could say conservative, therefore dynamics rather low.

11. Which future developments can be foreseen?

Strategic use of e-business will gain grounds, flexibility and targeting will improve further. All players want to handle the traffic, start-ups competing with the big ones.

12. How about their probability of becoming real?

Data mining and behavioral analysis are in the focus. Big data analytics and strategy development is going to come.

13. Which external factors are involved?

Most important legal setting and law execution, cyber security.

14. Which industries/sectors will be affected most?

Retail for sure, manufacturing and services, too.

15. Which functional areas of organizations will be affected most?

Sales, distribution, marketing, but also HR

16. Are there different scenarios concerning future developments in e-business?

No scenarios needed, security must be improved, if not development could be limited.

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?

Differentiation still makes sense as the situation in countries and area varies a lot and leads to different behavior and preferences.

18. Which sources of information are you using concerning the field of e-business?

Journal of Electronic Commerce, VDI Nachrichten, The Economist, Handelsblatt, Cebit, Decision Support Systems, Colleagues

19. Which sources are most important for you?

Personal contacts

20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit?

Marketing Science conference (Informs)



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- Marketing, Relationship Management, Communication
- HR, Knowledge Management
- Supply, Logistics, Production, Controlling
- Finance, Assets, Payment Systems, Mobile Payment, Micro Payment
- Cyber Security
- Administration, (Project-) Management
- Housekeeping, Facility Management

1. To begin with a general perspective: How about the impact of e-business for companies and organizations at present?

Very important, particularly in services, e-business has to support economic transactions using web technologies and produces increases in efficiency.

2. Which are the main reasons of your opinion?

Efficiency, effectiveness, better targeting, flexibility. Ubiquity is easier to achieve.

3. Which developments can be observed in e-business nowadays?

More cooperation over the supply chain. Evaluation of Big data and strategy development.

4. Which future developments do you expect?

More concentration of service providers on the internet, more information available at lower cost (buying process), more suppliers can be considered and compared, Consumers will prefer different products (status effects change).

5. Are you familiar with innovations on the field of e-business? (Please name and explain!)

e.g. insurance and government affected, better monitoring for price benefits, people give up on privacy if it becomes economically interesting (e.g. lower car insurance if blackbox accepted)

6. How about their importance and impact?

Importance of innovations is shown or has to be proofed on the market, only what sells...

7. Which consequences will they have?

Innovations only persist if they allow for economic benefits. In communication convenience is very important.

8. How about the impact of these consequences?

Not all innovations will proof successful on the long run. Some technical innovations look promising 3-D printing, payment systems, big data

9. How permanent do you judge the impact of the innovations mentioned?

The ones named look promising.

10. How about their dynamics?

The dynamics depend on the actors, if there is only one change can occur much faster as if several had to agree.

11. Which future developments can be foreseen?

More evaluation tools, importance of transactional data (payment systems!)

12. How about their probability of becoming real?

Most probable new analytics tools particularly customer retention. Strategic thinking and planning, too. Innovations must be useful.

13. Which external factors are involved?

Public opinion legal and political environment, economy, technological aspects.

14. Which industries/sectors will be affected most?

Service in general, retail, finance, health.

15. Which functional areas of organizations will be affected most?

All functions

16. Are there different scenarios concerning future developments in e-business?

No scenarios, development path seems evident, but surprises cannot be excluded.

17. On a global level does it make sense to differentiate developments on a country- or region-specific level?

Some differentiation required, but also potential for standardization.

18. Which sources of information are you using concerning the field of e-business?

Business Journals, internet, business partners, fairs

19. Which sources are most important for you?

Business partners

20. Concerning the topic e-business in general or concerning specific topics what would you recommend to read which events or conferences to visit? E-

Commerce, Paris

## APPENDIX 2:

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2 -

1. There is an overwhelming importance of e-business.
2. Organizations must not ignore it.
3. Support of economic transactions is central in e-business definitions.
4. Another crucial aspect in defining e-business is the use of web technologies.
5. The main advantage of e-business is efficiency.
6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.
7. The spreading of e-business is leading to more concentration.
8. Individualization resulting from big data is a strong tendency on many markets.
9. Offline trade is being threatened.
10. No-line trade is becoming the new standard.
11. There is an innovative trend to online relations.
12. The technology of ibeacons is an important innovation in retailing.
13. Augmented reality will have a huge impact on the shopping experience.
14. Shopping and entertainment is integrating, not only offline but online, too.
15. The distribution will change completely.
16. The communication landscape will continue to change.
17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.
18. Future developments will focus on analytics, automation and individualization.
19. Retailing is one of the industries most affected of e-business developments.
20. The formation of public opinion is the central mediator in e-business development.

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## E- Business Developments and Skills Requirements in the Retail Sector

- Delphi Round 2 -

1. There is an overwhelming importance of e-business.

Obviously

2. Organizations must not ignore it.

Not ignore it, but not same importance for all

3. Support of economic transactions is central in e-business definitions.

Right, if transactions of intangibles are included

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

Right, but there are others like flexibility and individualization

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Maybe a result of different backgrounds

7. The spreading of e-business is leading to more concentration.

I don't think so, that this is always the case

8. Individualization resulting from big data is a strong tendency on many markets.

Definitely

9. Offline trade is being threatened.

Agree

10. No-line trade is becoming the new standard.

Not in all industries

11. There is an innovative trend to online relations.

Possibly

12. The technology of ibeacons is an important innovation in retailing.

Not only ibeacons, but other LBS, too

13. Augmented reality will have a huge impact on the shopping experience.

I am not 100% sure, because it is very costly

14. Shopping and entertainment is integrating, not only offline but online, too.

Seems so

15. The distribution will change completely.

To which degree still remains unclear

16. The communication landscape will continue to change.

Sure

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

OK

18. Future developments will focus on analytics, automation and individualization.

Possibly

19. Retailing is one of the industries most affected of e-business developments.

Right

20. The formation of public opinion is the central mediator in e-business development.

At least a very important one

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

It is important, not overwhelming

2. Organizations must not ignore it.

Could be dangerous to ignore

3. Support of economic transactions is central in e-business definitions.

It is just one possible aspect among others

4. Another crucial aspect in defining e-business is the use of web technologies.

Yes, but not necessarily internet

5. The main advantage of e-business is efficiency.

Depends on the business model

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

There is a bias between Europe and rest of the world

7. The spreading of e-business is leading to more concentration.

At the moment it looks like, but nobody knows, if this is final

8. Individualization resulting from big data is a strong tendency on many markets.

If you mean really big data and not all the buzz

9. Offline trade is being threatened.

Threatened somehow, but still strong

10. No-line trade is becoming the new standard.

Not always

11. There is an innovative trend to online relations.

If there is not an increasing concern about privacy

12. The technology of ibeacons is an important innovation in retailing.

All kinds of LBS

13. Augmented reality will have a huge impact on the shopping experience.

Possible, but expensive

14. Shopping and entertainment is integrating, not only offline but online, too.

In b2c

15. The distribution will change completely.

Somehow, but to which degree

16. The communication landscape will continue to change.

OK

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

Overall payment

18. Future developments will focus on analytics, automation and individualization.

That is a potential for startups

19. Retailing is one of the industries most affected of e-business developments.

Not all retailers

20. The formation of public opinion is the central mediator in e-business development.

In b2c

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

Important but not for all

2. Organizations must not ignore it.

Some industries/businesses could possibly do it

3. Support of economic transactions is central in e-business definitions.

Can be an important element

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

OK

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Europe is more sensitive now, but others will follow

7. The spreading of e-business is leading to more concentration.

Not so sure

8. Individualization resulting from big data is a strong tendency on many markets.

OK

9. Offline trade is being threatened.

Malls in countries like South-Africa have a very strong position

10. No-line trade is becoming the new standard.

Online becomes important in b2c

11. There is an innovative trend to online relations.

OK

12. The technology of ibeacons is an important innovation in retailing.

Is hyped at the moment

13. Augmented reality will have a huge impact on the shopping experience.

Very complex and costly

14. Shopping and entertainment is integrating, not only offline but online, too.

Not in b2b

15. The distribution will change completely.

It is changing in some industries

16. The communication landscape will continue to change.

OK

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

3-D printing

18. Future developments will focus on analytics, automation and individualization.

Business opportunities

19. Retailing is one of the industries most affected of e-business developments.

OK

20. The formation of public opinion is the central mediator in e-business development.

Not the only one

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

Important indeed

2. Organizations must not ignore it.

Risky to do so

3. Support of economic transactions is central in e-business definitions.

There are others, too

4. Another crucial aspect in defining e-business is the use of web technologies.

Basic aspect

5. The main advantage of e-business is efficiency.

Efficiency is always important, but as a result of e-business it varies on the particular firm

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

People trade it in for convenience, in b2c not in b2b

7. The spreading of e-business is leading to more concentration.

Looks like, in IT

8. Individualization resulting from big data is a strong tendency on many markets.

Individualization, yes

9. Offline trade is being threatened.

In consumer, yes, but will not vanish anyhow

10. No-line trade is becoming the new standard.

For b2c channel integration often is very important

11. There is an innovative trend to online relations.

Depends on cyber security

12. The technology of ibeacons is an important innovation in retailing.

Very interesting

13. Augmented reality will have a huge impact on the shopping experience.

For some companies, yes

14. Shopping and entertainment is integrating, not only offline but online, too.

Agree

15. The distribution will change completely.

Agree

16. The communication landscape will continue to change.

Agree

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

Micro payment

18. Future developments will focus on analytics, automation and individualization.

Interesting challenges

19. Retailing is one of the industries most affected of e-business developments.

Yes, but not all retailers to the same extent

20. The formation of public opinion is the central mediator in e-business development.

Profit generation is more relevant

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

OK

2. Organizations must not ignore it.

OK

3. Support of economic transactions is central in e-business definitions.

Among others...

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

OK, but not always

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Privacy will become an issue, soon, even in the US

7. The spreading of e-business is leading to more concentration.

OK, it seems so

8. Individualization resulting from big data is a strong tendency on many markets.

OK

9. Offline trade is being threatened.

In many aspects

10. No-line trade is becoming the new standard.

Not in all cases,

11. There is an innovative trend to online relations.

Very often

12. The technology of ibeacons is an important innovation in retailing.

Gadget

13. Augmented reality will have a huge impact on the shopping experience.

For those (firms) who can afford it, in b2c

14. Shopping and entertainment is integrating, not only offline but online, too.

OK, b2c

15. The distribution will change completely.

It changes

16. The communication landscape will continue to change.

OK

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

OK

18. Future developments will focus on analytics, automation and individualization.

It looks like

19. Retailing is one of the industries most affected of e-business developments.

OK with some exceptions

20. The formation of public opinion is the central mediator in e-business development.

Together with technology and payoffs

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

Right

2. Organizations must not ignore it.

Correct

3. Support of economic transactions is central in e-business definitions.

Just one element

4. Another crucial aspect in defining e-business is the use of web technologies.

More than the one before

5. The main advantage of e-business is efficiency.

Efficiency is always important

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Cyber security becomes more important

7. The spreading of e-business is leading to more concentration.

Probably yes

8. Individualization resulting from big data is a strong tendency on many markets.

Individualization yes

9. Offline trade is being threatened.

In b2c

10. No-line trade is becoming the new standard.

For many suppliers

11. There is an innovative trend to online relations.

Widespread

12. The technology of ibeacons is an important innovation in retailing.

LBS has potential in b2c

13. Augmented reality will have a huge impact on the shopping experience.

Interesting but complex, more in b2c

14. Shopping and entertainment is integrating, not only offline but online, too.

Only in b2c

15. The distribution will change completely.

More in b2c than in b2b

16. The communication landscape will continue to change.

That's right

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

3-D printing, m2m

18. Future developments will focus on analytics, automation and individualization.

Interesting areas

19. Retailing is one of the industries most affected of e-business developments.

OK

20. The formation of public opinion is the central mediator in e-business development.

Not for b2b

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

Not overwhelming

2. Organizations must not ignore it.

Better not

3. Support of economic transactions is central in e-business definitions.

OK

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

That is the driver

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

OK

7. The spreading of e-business is leading to more concentration.

Maybe

8. Individualization resulting from big data is a strong tendency on many markets.

OK

9. Offline trade is being threatened.

If the companies do not do their homework

10. No-line trade is becoming the new standard.

Will be used commonly

11. There is an innovative trend to online relations.

OK

12. The technology of ibeacons is an important innovation in retailing.

Not only ibeacons

13. Augmented reality will have a huge impact on the shopping experience.

We will see..., more in b2c and maybe not everywhere

14. Shopping and entertainment is integrating, not only offline but online, too.

In b2c

15. The distribution will change completely.

To some degree

16. The communication landscape will continue to change.

OK

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

Big data is probably being hyped, at least the expression

18. Future developments will focus on analytics, automation and individualization.

OK

19. Retailing is one of the industries most affected of e-business developments.

OK

20. The formation of public opinion is the central mediator in e-business development.

In b2c more than in b2b

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

It is one very important development

2. Organizations must not ignore it.

OK

3. Support of economic transactions is central in e-business definitions.

I am not sure, about that, there are other important aspects, too

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

Not always

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Consumers often care about their convenience and not much more

7. The spreading of e-business is leading to more concentration.

I don't know

8. Individualization resulting from big data is a strong tendency on many markets.

There is potential for individualization even on mass markets

9. Offline trade is being threatened.

At least some models will become troubled

10. No-line trade is becoming the new standard.

Channels have to be integrated

11. There is an innovative trend to online relations.

Indeed

12. The technology of ibeacons is an important innovation in retailing.

All LBS seem interesting

13. Augmented reality will have a huge impact on the shopping experience.

Could be

14. Shopping and entertainment is integrating, not only offline but online, too.

If we talk about b2c, not in b2b

15. The distribution will change completely.

It changes

16. The communication landscape will continue to change.

I think so

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

Overall payment

18. Future developments will focus on analytics, automation and individualization.

Offers business opportunities

19. Retailing is one of the industries most affected of e-business developments.

B2c

20. The formation of public opinion is the central mediator in e-business development.

b2c, OK

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

Politics and technology equally important developments

2. Organizations must not ignore it.

Better not ignore it, but not all equally affected

3. Support of economic transactions is central in e-business definitions.

Not always

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

OK

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Privacy will become more important

7. The spreading of e-business is leading to more concentration.

At the moment there is some evidence, but this could change

8. Individualization resulting from big data is a strong tendency on many markets.

Big data what is that, many different definitions

9. Offline trade is being threatened.

There is a threat, for some business models

10. No-line trade is becoming the new standard.

I would not call it a standard, but channel integration seems on the rise

11. There is an innovative trend to online relations.

OK

12. The technology of ibeacons is an important innovation in retailing.

In b2c that is the case

13. Augmented reality will have a huge impact on the shopping experience.

In b2c

14. Shopping and entertainment is integrating, not only offline but online, too.

In b2c

15. The distribution will change completely.

More research needed

16. The communication landscape will continue to change.

OK

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

From nowadays' perspective, but big data must be understood right

18. Future developments will focus on analytics, automation and individualization.

New business models are resulting

19. Retailing is one of the industries most affected of e-business developments.

In general yes

20. The formation of public opinion is the central mediator in e-business development.

There are other factors, too politics, technology, efficiency

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## E- Business Developments and Skills Requirements in the Retail Sector

### - Delphi Round 2-

1. There is an overwhelming importance of e-business.

It is important for most firms no matter b2b or b2c

2. Organizations must not ignore it.

Most cannot afford to ignore it, but relevance differs

3. Support of economic transactions is central in e-business definitions.

Not in all definitions

4. Another crucial aspect in defining e-business is the use of web technologies.

OK

5. The main advantage of e-business is efficiency.

Not only efficiency

6. Half of the interviewees expect users to continue losing interest in data privacy matters, the other half has an opposing opinion predicting a strong upturn of users' concern regarding these issues.

Cyber security seems to become more important

7. The spreading of e-business is leading to more concentration.

Not sure

8. Individualization resulting from big data is a strong tendency on many markets.

It becomes easier to achieve individualization, even if you are dealing with many customers

9. Offline trade is being threatened.

Not everywhere (e.g. fresh products)

10. No-line trade is becoming the new standard.

Generally yes, but there are also exceptions

11. There is an innovative trend to online relations.

OK, probably more in b2b

12. The technology of ibeacons is an important innovation in retailing.

LBS has potential in b2c, but not really in b2b

13. Augmented reality will have a huge impact on the shopping experience.

That depends on the business, could be interesting not only in b2c but is costly to implement

14. Shopping and entertainment is integrating, not only offline but online, too.

Only true for b2c

15. The distribution will change completely.

It changes but to what extent depends on the industry

16. The communication landscape will continue to change.

It looks like

17. Today's most important development trends are 3-D printing, internet of things (or machines), payment systems (including micro payments) and big data.

Mostly 3-D printing and payments

18. Future developments will focus on analytics, automation and individualization.

These developments generate opportunities

19. Retailing is one of the industries most affected of e-business developments.

OK

20. The formation of public opinion is the central mediator in e-business development.

In b2c possibly yes

## APPENDIX 3

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## E- Business Developments and Skills Requirements in the Retail Sector

### Retail experts

1. Which development trends are of importance for retailers at present?
2. How do you assess the role of e-business in this context and which trends and tendencies are of importance?
3. Which technologies and innovations are of particular importance for the retail industry?
4. Where is the retailing industry heading to?
5. Which changes are you expecting in the retail industry in the next five years?
6. Are these trends relevant for a specific country (e.g. Germany), a specific region (e.g. Europe) or on a global level?
7. Are there specific success factors to be identified in new business models in retailing?
8. Which are the distinguishing characteristics of new successful business models in retailing?
9. How are the requirements and expectations towards employees in the retail industry developing?

10. Which skills and capabilities will be of importance in the future?
11. Which university careers and professional trainings would be worth considering in that context?
12. How are retailers going to satisfy their future demand of qualified employees?  
(education/training vs. recruiting/hiring)
13. What is your appraisal of these options?
14. Are there any international biases, worth being considered?

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## E- Business Developments and Skills Requirements in the Retail Sector

Retail experts

1. Welche Entwicklungstrends sind derzeit für den Einzelhandel von Bedeutung?
2. Wie beurteilen Sie die Rolle von e-business in diesem Zusammenhang und welche Trends und Tendenzen sind hier von Bedeutung?
3. Welche Technologien bzw. Innovationen im Einzelnen sind von großer Relevanz für den Einzelhandel?
4. Wohin steuert der Einzelhandel insgesamt??
5. Welche konkreten Veränderungen im Einzelhandel sind in den nächsten 5 Jahren zu erwarten?
6. Gelten diese Entwicklungen nur für Deutschland oder international oder global?
7. Lassen sich generelle Erfolgsfaktoren neuer Geschäftsmodelle im Einzelhandel erkennen?

8. Wodurch zeichnen sich neue, erfolgreiche Geschäftsmodelle im Einzelhandel aus?
9. Wie entwickeln sich die Mitarbeiteranforderungen im Einzelhandel?
10. Welche Fähigkeiten werden in Zukunft vor allem gefragt sein?
11. Welche Studienrichtungen und Ausbildungen könnten in diesem Zusammenhang in Betracht kommen?
12. Wie werden Handelsunternehmen ihren künftigen Bedarf an qualifizierten Mitarbeitern decken? (Schulung / Ausbildung vs. Einkauf / Einstellung)
13. Wie beurteilen Sie die Möglichkeiten in diesem Zusammenhang?
14. Welche internationalen Unterschiede bestehen in dieser Hinsicht?

#1



## International Business

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## E- Business Developments and Skills Requirements in the Retail Sector

### Retail experts

1. Welche Entwicklungstrends sind derzeit für den Einzelhandel von Bedeutung?

Mobile ist derzeit der wichtigste Trend

2. Wie beurteilen Sie die Rolle von e-business in diesem Zusammenhang und welche Trends und Tendenzen sind hier von Bedeutung?

Mobile business führt zu verändertem Suchverhalten, viel mehr Besuche ohne Kauf

Nutzung aller verschiedenen Kanäle, daher muss die Präsenz der Anbieter verbessert werden (qualitativ)

3. Welche Technologien bzw. Innovationen im Einzelnen sind von großer Relevanz für den Einzelhandel?

Marketingtechnisch, programmiertechnisch und gerätespezifisch müssen Verbesserungen erfolgen. V.a. gerätespezifisch große Herausforderung, da sich die mobile devices (nicht nur deren Browser) wesentlich stärker unterscheiden als desktop und notebook.

4. Wohin steuert der Einzelhandel insgesamt??

Starke Zunahme des Wettbewerbs, Individualisierung nimmt erheblich zu, Komplexität ebenfalls

Der klass. Versandhandel ist tot

Channeling ist aus heutiger Sicht sehr schwer zu beurteilen, d.h. welche Kanäle wann wie und in welchem Umfang genutzt werden

Bei beratungsintensiven Produkten bleiben Filialen wichtig, bei Mode wahrscheinlich weniger

5. Welche konkreten Veränderungen im Einzelhandel sind in den nächsten 5 Jahren zu erwarten?

Im Prinzip müssen drei verschiedene Bereiche intensiv zusammenarbeiten

Traffic source, Conversion optimization, und after sales service, das stellt eine große Herausforderung dar, sowohl organisatorisch als auch inhaltlich

Individualisierung, Differenzierung bis long-tail

6. Gelten diese Entwicklungen nur für Deutschland oder international oder global?

Globale Gültigkeit mit einzelnen nationalen Besonderheiten

7. Lassen sich generelle Erfolgsfaktoren neuer Geschäftsmodelle im Einzelhandel erkennen?

Beratungsintensität und Qualität sehr gut

8. Wodurch zeichnen sich neue, erfolgreiche Geschäftsmodelle im Einzelhandel aus?

Social commerce, Individualisierung Flexibilität, Einbeziehung v. 3D Druck

9. Wie entwickeln sich die Mitarbeiteranforderungen im Einzelhandel?

Starke Nachfrage nach Marketingfachleuten mit Zahlenaffinität,

Controller für webspezifische Performance und

Techniker/Programmierer

Die Komplexität der Steuerung nimmt stark zu über die verschiedenen Ebenen im e-commerce hinweg,

10. Welche Fähigkeiten werden in Zukunft vor allem gefragt sein?

Marketing wird immer analytischer merging Marketing und Controlling

Analysekompetenz ist gefragt

Vorgehen im Controlling ändert sich komplett, Hypothesen übernehmen Leitfunktion und entsprechend Daten werden dazu gesucht, nicht mehr wie bisher:

Daten betrachten die vorliegen und überlegen was man damit anfangen kann

Markenmanagementkompetenz wird sehr stark gefragt sein, Produktmarken Dachmarken des Handels (zalando)

Emotionale Aspekte gewinnen stark an Bedeutung

Kommunikation mehr über Videos auf Plattformen, zum Download, virale Verbreitungsmöglichkeit  
DAFÜR ist CONTENT entscheidend

Unterhaltungswert ist gefragt, dafür sind analytische Kenntnisse zur Bestimmung von relevanten Inhalten wichtig.

**11. Welche Studienrichtungen und Ausbildungen könnten in diesem Zusammenhang in Betracht kommen?**

IT, industrial engineering, informatics, DHBW, business administration

**12. Wie werden Handelsunternehmen ihren künftigen Bedarf an qualifizierten Mitarbeitern decken? (Schulung / Ausbildung vs. Einkauf / Einstellung)**

Intrinsische Motivation, attraktive Arbeitsbedingungen, Gehalt nur begrenzte Relevanz

Employer Branding!

**13. Wie beurteilen Sie die Möglichkeiten in diesem Zusammenhang?**

Sehr schwierig hoch qualifizierte Mitarbeiter zu bekommen, besonders in ländlichen Gebieten Bad Waldsee, daher einzelne Abteilungen schon in München angesiedelt

e-commerce Zentrum in Deutschland Berlin bzw. HH ggf. M

**14. Welche internationalen Unterschiede bestehen in dieser Hinsicht?**

e-commerce weniger bestimmend, wo malls sehr gefestigte Marktpositionen haben, sie lesiten auch den gewünschten merge zwischen Kommunikation und Entertainment

Länder mit bes. großer Internetaffinität in den kaufkräftigen Schichten also z.B. UK mit service Industrie Finanzdienstleister

Logistik ist die Schlüsselfunktion im internationalen Geschäft, kann auch bottleneck sein,

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## E- Business Developments and Skills Requirements in the Retail Sector

### Retail experts

1. Welche Entwicklungstrends sind derzeit für den Einzelhandel von Bedeutung?  
*e-business in SA allenfalls Thema für Dienstleister*
2. Wie beurteilen Sie die Rolle von e-business in diesem Zusammenhang und welche Trends und Tendenzen sind hier von Bedeutung?  
*Logistik ist in SA extrem aufwändig, teuer, unsicher wirkt daher als bottleneck*
3. Welche Technologien bzw. Innovationen im Einzelnen sind von großer Relevanz für den Einzelhandel?  
*Abholstationen in malls könnten eventuell eine wichtige Funktion erfüllen.*
4. Wohin steuert der Einzelhandel insgesamt??  
*Malls nach wie vor Wachstumsmodell*
5. Welche konkreten Veränderungen im Einzelhandel sind in den nächsten 5 Jahren zu erwarten?  
*e-business findet im Bankbereich Verbreitung mit allen FDL, e-payment könnte sehr wichtig werden (wg. Sicherheit und Flexibilität)*

6. Gelten diese Entwicklungen nur für Deutschland oder international oder global?  
Die Angaben betreffen Südafrika
7. Lassen sich generelle Erfolgsfaktoren neuer Geschäftsmodelle im Einzelhandel erkennen?  
Logistiklösung muss dabei sein
8. Wodurch zeichnen sich neue, erfolgreiche Geschäftsmodelle im Einzelhandel aus?  
Ggf. Abholstationen
9. Wie entwickeln sich die Mitarbeiteranforderungen im Einzelhandel?  
Qualifikationsanforderungen gehen nach oben, Niveau ist insgesamt in SA oftmals schlecht,  
Nachholbedarf im Bereich Allgemeinbildung
10. Welche Fähigkeiten werden in Zukunft vor allem gefragt sein?  
Zunächst mal Grundlagen, dann analytische Kenntnisse, Fähigkeiten in Mathematik,  
Arbeitsethik und -moral
11. Welche Studienrichtungen und Ausbildungen könnten in diesem Zusammenhang in Betracht kommen?  
Duale Ausbildung oder duales Studium wäre sehr gut geeignet
12. Wie werden Handelsunternehmen ihren künftigen Bedarf an qualifizierten Mitarbeitern decken? (Schulung / Ausbildung vs. Einkauf / Einstellung)  
Einstellung bislang machbar, ggf. Weiterentwicklung der. MA
13. Wie beurteilen Sie die Möglichkeiten in diesem Zusammenhang?  
Keine gravierenden Personalbeschaffungsprobleme
14. Welche internationalen Unterschiede bestehen in dieser Hinsicht?  
Erhebliche länderspezifische Einflüsse,

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## E- Business Developments and Skills Requirements in the Retail Sector

### Retail experts

1. Welche Entwicklungstrends sind derzeit für den Einzelhandel von Bedeutung?

Extremer Wettbewerb auf internationaler Ebene, Kostenkontrolle hat Priorität, mobile Endgeräte gewinnen stark an Bedeutung und bewirken Verhaltensänderungen der Kundschaft, Sicherheitsaspekte geraten zunehmend in das Bewusstsein der Abnehmer

2. Wie beurteilen Sie die Rolle von e-business in diesem Zusammenhang und welche Trends und Tendenzen sind hier von Bedeutung?

e-business ist bereits sehr wichtig und gewinnt weiter an Bedeutung, allerdings eher in komplementärer Hinsicht also ergänzend, es ist nicht damit zu rechnen, dass der traditionelle Handel verschwindet, aber er muss eben auch Online-Kanäle bespielen, mobile Technologien haben zu erheblichen Veränderungen geführt, wie stark das in Zukunft noch weitergeht ist offen, Individualisierung ist sicher auch eine wichtige Entwicklung

3. Welche Technologien bzw. Innovationen im Einzelnen sind von großer Relevanz für den Einzelhandel?

Zahlungssysteme, NFC bzw. kontaktlose Zahlungssysteme auch micro payment erscheint wichtig, virtuelle Kaufhäuser (in ferner Zukunft)

4. Wohin steuert der Einzelhandel insgesamt?

e-business legt weiter zu allerdings stärker in Schwellenländern, in den klass. Industrieländern scheint sich die Dynamik zu reduzieren, No-line Handel also die Integration der verschiedenen Kanäle wird für die meisten unabdingbar, Infrastruktur (Transportwege, Kommunikationsnetze) spielt eine wichtige Rolle bei der Frage der Aufteilung von Online und Offline, Marken im Handel gewinnen an Bedeutung, das gilt nicht nur für Produktmarken und ggf. Handelsmarken sondern auch für das Branding der Händler

5. Welche konkreten Veränderungen im Einzelhandel sind in den nächsten 5 Jahren zu erwarten?

Social commerce wird wichtig, die Verfügbarkeit von Waren am POS wird besser werden, Anforderungen an Verkäufer nehmen zu, aber es gibt kaum Spielraum für eine bessere Bezahlung, Qualifizierungsmaßnahmen werden unerlässlich

6. Gelten diese Entwicklungen nur für Deutschland oder international oder global?  
Gültigkeit in erster Linie für Mitteleuropa

7. Lassen sich generelle Erfolgsfaktoren neuer Geschäftsmodelle im Einzelhandel erkennen?  
Nutzenstiftung für den Kunden spielt eine zentrale Rolle, Kreativität basierend auf Branchenkenntnis und analytische Fähigkeiten, ggf. auch Serviceorientierung, wobei sich hier immer die Kostenfrage stellt

8. Wodurch zeichnen sich neue, erfolgreiche Geschäftsmodelle im Einzelhandel aus?  
Generalisierung schwer möglich

9. Wie entwickeln sich die Mitarbeiteranforderungen im Einzelhandel?  
Akademisierung, analytische Fähigkeiten sind stark gefragt am besten gepaart mit Marketingkenntnissen, interdisziplinäres Wissen

10. Welche Fähigkeiten werden in Zukunft vor allem gefragt sein?  
Kompetenz in erster Linie

11. Welche Studienrichtungen und Ausbildungen könnten in diesem Zusammenhang in Betracht kommen?  
Einerseits IT-lastige Ausbildung auch dual, aber auch fundiertes Wissen im verhaltenswissenschaftlichen Bereich, man sollte beides miteinander kombinieren

12. Wie werden Handelsunternehmen ihren künftigen Bedarf an qualifizierten Mitarbeitern decken? (Schulung / Ausbildung vs. Einkauf / Einstellung)

Ausbildung und Weiterbildung der MA bekommt eine (noch) größere Bedeutung, ggf. berufsbegleitendes Studium ermöglichen

13. Wie beurteilen Sie die Möglichkeiten in diesem Zusammenhang?

Allein auf Einstellung zu setzen ist überaus riskant

14. Welche internationalen Unterschiede bestehen in dieser Hinsicht?

In Schwellenländern haben die Arbeitgeber bislang weniger Probleme bei der Stellenbesetzung als in den klassischen Industrieländern

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## E- Business Developments and Skills Requirements in the Retail Sector

### Retail experts

1. Which development trends are of importance for retailers at present?  
*Mobile commerce, data privacy*
2. How do you assess the role of e-business in this context and which trends and tendencies are of importance?  
*e-business as an add-on to offline selling, support in logistics, e-procurement*
3. Which technologies and innovations are of particular importance for the retail industry?  
*Payment systems, virtual stores eventually LBS*
4. Where is the retailing industry heading to?  
*Only moderate growth in online trade, exception developing countries, malls remain important (where they already are e.g. US, SA, Asia)*
5. Which changes are you expecting in the retail industry in the next five years?  
*Higher qualified sales staff needed, particularly IT knowledge, qualified employees can increase their income, even in shops on the sales front*

6. Are these trends relevant for a specific country (e.g. Germany), a specific region (e.g. Europe) or on a global level?

Mostly for industrialized countries

7. Are there specific success factors to be identified in new business models in retailing?

Always customer orientation, often convenience for customers, also safety and reliability

8. Which are the distinguishing characteristics of new successful business models in retailing?

I am not sure whether they exist on an general basis

9. How are the requirements and expectations towards employees in the retail industry developing?

Software knowledge, analytical skills and cultural competencies combined with industry specific knowledge

10. Which skills and capabilities will be of importance in the future?

IT, sales and a high level of motivation, good educational background

11. Which university careers and professional trainings would be worth considering in that context?

Online Marketing Manager, Multichannel Manager, SEO Manager, Web Designer, Software Developer, Cyber Security Manager

12. How are retailers going to satisfy their future demand of qualified employees?  
(education/training vs. recruiting/hiring)

In industrialized countries the only way is to offer more trainings and dual education, in developing countries hiring is an option

13. What is your appraisal of these options?

Educational programs plus more flexibility in order to combine working and studying

14. Are there any international biases, worth being considered?

Particularly Scandinavia, Germany and Japan the demand is exceeding in southern Europe it is the opposite

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## E- Business Developments and Skills Requirements in the Retail Sector

### Retail experts

1. Which development trends are of importance for retailers at present?

Mobile commerce causes a lot of changes in customer behaviour, generating a lot of job opportunities

2. How do you assess the role of e-business in this context and which trends and tendencies are of importance?

Mobile is the trend but I have doubts that it will continue much longer, the combination of entertainment and shopping is more persistent as a trend

3. Which technologies and innovations are of particular importance for the retail industry?

e-payment in all its varieties

4. Where is the retailing industry heading to?

Multi channeling is a must for all, most probably even for the ones that come from online

5. Which changes are you expecting in the retail industry in the next five years?

3-D printing is a hype, e-procurement and improved logistics the challenge

6. Are these trends relevant for a specific country (e.g. Germany), a specific region (e.g. Europe) or on a global level?

The usual suspects (economic powers), but trend often develop in a certain area and then spread

7. Are there specific success factors to be identified in new business models in retailing?

Benefits for customer

8. Which are the distinguishing characteristics of new successful business models in retailing?

If I knew...

9. How are the requirements and expectations towards employees in the retail industry developing?

Social sciences and MINT

10. Which skills and capabilities will be of importance in the future?

Analytical skills plus behavioural knowledge

11. Which university careers and professional trainings would be worth considering in that context?

IT Manager, Social Media Manager, Experts in Cyber Security, Interactive Designer

12. How are retailers going to satisfy their future demand of qualified employees?  
(education/training vs. recruiting/hiring)

Training, educating and paying

13. What is your appraisal of these options?

Only paying can be dangerous at least in industrialized countries

14. Are there any international biases, worth being considered?

It all depends on the current economic situation, job market

## APPENDIX 4:

## Interviewees in Delphi Round 1+2

Position	Function	Institution/Industry	Educational Background	Country
Top Management	Management	BVT; Technical Trade Association	Business Administration	Germany
Manager	HR	Retailer	Business Administration	UK
Manager	HR	Manufacturing	Business Administration	China
CIO	IT	Service	Industrial Engineering	Switzerland
Top Management	e-business	Service	Business Administration	Austria
Department Manager	Business Development	Retail/Wholesale Machine Tools & Parts	Business Administration	Germany
Professor	e-commerce	University	Computer Science, Business Administration	India
Project Manager	e-business Consulting	Consulting	Business Administration	Ireland
Owner of Business	General Management	Wholesaler/Importer Foodstuff	???	South Africa
Professor	e-business	University	Business Admin, Information Science	Germany

## APPENDIX 5:

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## Interviewees Retail Experts

Position	Function	Institution/Industry	Educational Background	Country
Regional Sales Manager	Management	Retailer Chain	Business Administration	Poland / Germany
General Manager	Management	Department Store	Business Administration	Ireland
Area Manager	Sales	Supermarket Chain	Business Administration	Germany / South Africa
Professor	Retail	University	Business Administration	Germany
Professor	e-commerce	University	Marketing and Computer Science	USA

## APPENDIX 6

Ethics approval letter

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Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	Faculty: <b>BUSINESS</b>
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At a meeting of the Research Ethics Committee on 4 March 2014, Ethics Approval was granted to PROF UDO KLAIBER for research activities Related to the: Retail Chair in the RETAIL BUSINESS MANAGEMENT DEPARTMENT, Business Faculty at the Cape Peninsula University of Technology

Title of Project:	E-Business Developments and Skills Requirements in the Retail Sector  Researcher: Prof D U Kleiber
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Comments:

Decision: **APPROVED**

 Signed: Chairperson: Research Ethics Committee	04 MARCH 2014 Date
Signed: Chairperson: Faculty Research Committee	Date

Clearance Certificate No | 2014FBREC166