THE FUTURE OF
E-COMMERCE IN THE U.S.

A Deutsche Post DHL Perspective

Deutsche Post DHL

Contents

Dear Reader,

E-commerce is crucial for success in today's retail industry. Online sales have shown tremendous growth worldwide, especially in the United States. Over the past two decades, many of the classic brick-and-mortar companies have transformed themselves into brick-and-click retailers with an integrated multichannel strategy. This growth has been accompanied by rising user expectations along with rapidly changing developments in technology and society.

The wide range of available sales channels along with greater shopping convenience has added to these challenges. Consumers demand superior service, an authentic brand experience and fast delivery combined with free and easy returns. These expectations place added pressure on both the retailers and their logistics partners. In addition, retailers must operate within volatile economic situations that generate nearly unpredictable peaks and valleys in demand.

We at Deutsche Post DHL understand that supply chain flexibility is a key factor for retail companies to meet these changing customer demands. In this fiercely competitive global market, agile and cost-efficient processes are the main drivers for success. When it comes to e-commerce, a highly efficient supply chain can play a critical role by reducing both warehousing and transportation costs.

Companies that aim to grow through e-commerce and cope with challenges such as over-stocking, under-stocking and long order-cycle times need to focus on creating flexibility in their supply chain. With a major portion of e-commerce sales occurring in the fourth quarter, there is a great challenge to build a distribution network that balances the stress and costs of peak and non-peak seasons.

Third-party logistics providers are equipped to support this variable demand model by providing resilient infrastructure and expertise to overcome the sector's common supply chain issues. By relying on these strong partners, retailers can invest greater time and resources into the overall customer experience and focus on the newest trends and developments in their high-paced business.

To help support your e-commerce efforts, we would like to share with you our findings on the trends and developments of today's U.S. retail business. This report is based on comprehensive research, an analysis of factors that shape both e-commerce and logistics trends, as well as input from our experts within the U.S. DHL network. I hope this report will provide you with valuable insights on the fast-moving world of e-commerce.

Enjoy your read!
Sincerely,

Bruce Edwards
CEO DHL Supply Chain

Introduction

E-commerce has been the most impressive success story in retail over the past decade. Globally, online shopping has experienced dynamic growth despite the economic and financial crises and other disruptive developments. E-commerce has become a key business for Deutsche Post DHL. As the leading provider of global logistics services and a facilitator of the e-commerce boom worldwide, we consider it part of our business to intensively explore issues that will shape the future of this sector over the next decade. In this report, we have chosen to focus on the future of e-commerce in the U.S. for two reasons: Firstly, the country is one of the biggest e-commerce markets worldwide; and secondly, it has played a pioneering role in global e-commerce from a demand and supply perspective. We believe that by assessing the growth of online shopping in the U.S., we can better understand how the sector might develop globally.

Together with well-known foresight and market research experts, we have collected and analyzed the most important trends in online shopping and compared this data with information that trend scouts collected for us in New York City. Our aim with this report is to go beyond the many e-commerce studies that are already available. To that end, we looked not only at trends but also at potential trend reversals that could lead to completely new online shopping patterns. We also developed a comprehensive portfolio including both probable trend developments and potential disruptions in U.S. e-commerce with a lower likelihood.

The following results of our analysis precede the larger international study "Global E-Tailing 2025" that Deutsche Post DHL will publish later this year. For our research, we commissioned trend scouts not only in New York City, but in 11 other big cities spread across all continents. We mobilized Deutsche Post DHL's internal e-commerce experts in North America and in all major business regions worldwide. And we not only analyzed the many e-commerce studies, but also interviewed dozens of e-commerce experts, online retailers, brick-and-mortar retailers and consumer goods manufacturers.
In a next step, we will combine their views and expectations in different scenarios that depict the future of global e-commerce. We will do so systematically, starting with key factors and alternative projections, including consistency checks and raw scenarios, which we will further describe and illustrate with examples.

Our initial findings on the future of e-commerce in the U.S. are more than promising. We will see a wealth of new online offers, innovative e-commerce systems and delivery services as well as changes in buying habits. E-commerce will remain exciting in both the U.S. and globally. Deutsche Post DHL hopes to encourage and inspire you to explore with us the future of this sector together.

Number of Mobile Shoppers in the U.S. (in Millions)

	2012	2013	2014	2015	2016
	95	118	140	159	175

Trend 01

Source: eMarketer

1. Trends in U.S. E-Commerce

Over the past decade, the U.S. e-commerce sector has experienced unprecedented growth. According to figures compiled by Pricewater-houseCoopers (PwC) and comScore, it has grown at five times the rate of traditional retailing. U.S. e-commerce spending reached $290 billion in 2012 and is forecast to increase to $500 billion by 2020, representing 20 percent of nonfood retail sales. Apart from growth, e-commerce will likely experience a number of qualitative changes shown in the following trends that we have analyzed together with well-respected foresight and research specialists. E-commerce will become more mobile and increasingly merge with bricks and mortar retail. It will become more entertaining, personalized and, at the same time, more careful of personal data. Finally, mobile shopping will benefit from new interfaces and more flexible delivery schemes.

Trend 01: Booming M-Commerce

Online shopping has become a fast, easy and comfortable purchasing experience. Today, e-commerce offers different sub-channels from computers to mobile phones (m-commerce) to tablets and TV (t-commerce). In the U.S., m-commerce is expected to play a larger role in the future. According to eMarketer, m-commerce in the U.S. amounted to $25 billion in 2012 and is forecast to rise to $92 billion in 2016 with 175 million mobile shoppers.

People are spending more time online, thanks to rising Internet and broadband penetration and usage of constantly improving smart mobile devices. More than 50 percent of U.S. consumers already depend on different screens for everyday content consumption, according to Forrester Research. Based on a recent yStats study, more than half a billion customers globally are expected to shop with mobile devices by 2016. Despite the increasing importance of mobile technologies and applications, only 41 percent of U.S. retail companies made corresponding m-commerce investments in 2011, according to PwC.
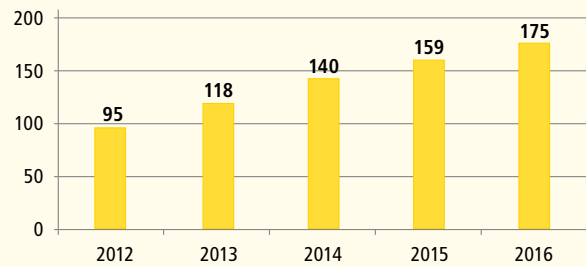
Effective e-commerce strategies require consistent product prices throughout retailers' multichannel landscapes. As consumers shop more spontaneously, they expect channel-specific offerings with optimal viewing, product information and geo-specific content that enhances the shopping experience.

Global E-Tailing 2025 will be a global scenario study, designed to be future-looking and will thus be enriched with spotlights from Trend Scouts in different regions. Related to the trends described you will find selected quotes and results from our trend scouting in the U.S.:
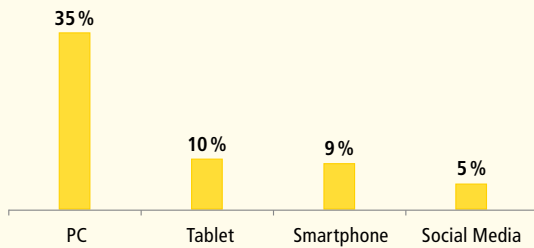
"When I wake up, I immediately go online and stay online until I go back to bed at night."

People no longer selectively go online but stay constantly online. According to a Google study, 89 percent of U.S. residents use their smartphones throughout the entire day, meaning that they are now able to shop around the clock. A Wanderful Media Survey has shown that 63 percent of online shoppers make purchases while watching TV and 24 percent while taking a break in a coffee shop or restaurant. Communications in brick-and-mortar stores are already adjusting to this development. Geo-fenced communication strategies are becoming increasingly important. Customers who enter a certain perimeter of the store location receive messages directly to their smartphones.

Trend 02: Toward Omnichannel Retailing

Consumers in the U.S. are increasingly using different channels for shopping. Although the personal computer remains the most important channel, tablets, smartphones and social media are gaining importance. According to a PwC survey,

Share of U.S. Shoppers Willing to Increase the Use of the Following Channels Over the Next 12 Months

```
35 %
 ██
 ██
 ██
 ██
 ██
 ██          10 %
 ██          ██        9 %
 ██          ██        ██       5 %
 ██          ██        ██       ██
 PC        Tablet   Smartphone  Social Media
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Source: PwC

Trend 02

65 percent of U.S.-based respondents shop across at least two channels, while 21 percent use up to five different channels ranging from smartphones, e-mail, social media networks, search engines and physical stores. A typical purchase today looks like this: Consumers check out products in a brick-and-mortar store for the "touch-and-feel" effect. They then look online for further information about the product – either to find the one they want at the right price or to widen the selection. After purchasing the item and having it delivered, they benefit from after-sales services, either in the store or online.

This multichannel concept also refers to retailers that have combined brick-and-mortar stores with an online retail channel. According to Accenture, the seamless shopping experience is being driven by the need for greater convenience and flexibility that consumers expect no matter where they are or which device they use. This will lead to an even stronger fusion between online shops and brick-and-mortar stores in the future – "omnichannel" retailing. PwC predicts that by 2020, omnichannel retailing will allow consumers to either order an item online and pick it up at the store or choose it in the store and receive it at home. The distinction between online and offline retail will ultimately disappear as physical stores gradually turn into pure showrooms.

Trend Scouting spotlights in the U.S.

"For me, there no longer is a difference between online and offline."

In late 2012, Wanderful Media presented the findings of a U.S. survey, which looked at the purchase behavior of 1,000 consumers. The survey showed that 91 percent of all consumers in the U.S. who went to a brick-and-mortar store to buy an item went there after first checking it out online. While inside the store, 77 percent of consumers researched an item online.

Offers such as Shopkick combine the online offers with the brick-and-mortar shopping experience. Registered users can use an app to collect points when they visit a brick-and-mortar store. After collecting a certain amount of points, they can exchange them for products *(picture source: Shopkick.com).*

Trend 03: E-(ntertaining) Commerce

In the 21st century, shopping is no longer simply about purchasing goods to fulfill certain basic needs. Connection with the customer and visual attractiveness are likewise crucial – especially to online retailers. A purchase is most often an "emotional" one – a buying decision made solely on emotional attachment or want for something. Therefore, creating a "real" and engaging experience in online shops becomes a

Gamification Market Forecast (in $ Billion)
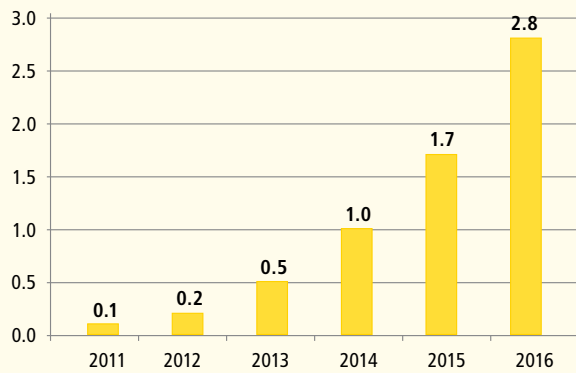
Source: M2 Research

Trend 03

priority. This is getting more and more important as consumers are confronted with more and more products and buying channels. Thus, their loyalties for brands and retailers are decreasing. However, retailers can create new ways to attract and retain customers by offering them innovative shopping experiences. Consumer engagement and physical stores that offer exciting events will play an increasingly important role.

While the types of events and entertainment have characterized the commercial landscape in the past, "gamification" has become a new, popular concept that involves applying game-like elements and harnessing the power of the crowd. M2 Research forecasts the total market for video games to reach $2.8 billion by 2016.

According to Accenture, "Nike+" rewards users for meeting specific running goals, a move that helped the company increase revenue in the running category by 30 percent in 2011. Gartner Research projects that by 2014, more than 70 percent of the world's 2,000 largest companies will have at least one game-based application. According to TechNavio those applications are expected to fuel consumer spendings to an estimated $3 billion by 2016.

In the age of mobile technology, the role of the physical store is changing. According to industry experts, modern retail stores will become places focused on fostering customer relationships, maintaining brand awareness, offering a lifestyle experience and selling a good time.

Trend Scouting spotlights in the U.S.:

"I want to have fun when I go shopping."

Shopping online is not as much fun as going to the mall. Many online merchants are trying to incorporate elements of entertainment into the buying process. One example is the use of QR codes, which Calvin Klein introduced in New York *(picture source: Get it Uncensored; Calvin Klein).*


However, QR codes are now being used too often. The U.S. is already witnessing a decreasing acceptance of the codes. They are only effective in engaging consumers when the videos, games or contests offer some sort of an additional benefit.

Trend 04: Custom-Tailored Shopping

In the multi-optional and highly competitive online retail space, customized shopping experiences will become more relevant. E-commerce platforms are increasingly personalizing their communications and pricing systems as well as their recommendations and product pre-selections.

A growing number of U.S. retailers have discovered that personalized communication improves their competitive position.

Worldwide Big Data IT Spending (in $ Billion)
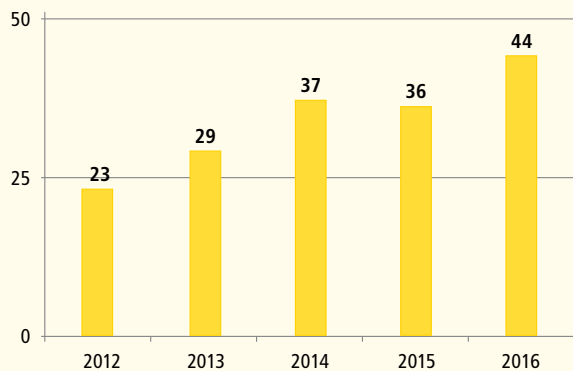


Trend 04   Source: Gartner

Their sales increased by 21 percent through personalized e-mails, according to a recent MyBuy marketing study. Personalization also helps retailers improve purchase frequency by 100 percent and increase the average order value by 50 percent, the study highlights. In the next years, personalization will go far beyond communications. Analysts believe that in the future, retailers will be pricing their products in a new way, allowing individual discounts, for instance, to be offered to consumers who previously visited a different shopping platform. Product pre-selection will also be increasingly customized to meet buyer profiles collected by the larger e-commerce platforms. And there will be a rise in smaller platforms providing fewer hand-picked items according to the curated e-commerce approach.

A better understanding of consumer behavior is at the core of custom-tailored shopping experiences. More and more companies are analyzing peoples' clicks, views and buys in order to build user profiles and predict an individual's future consumer behavior. Gartner assumes that "big data" IT spending will almost double from $23 billion in 2012 to $44 billion in 2016.

Trend Scouting spotlights in the U.S.:

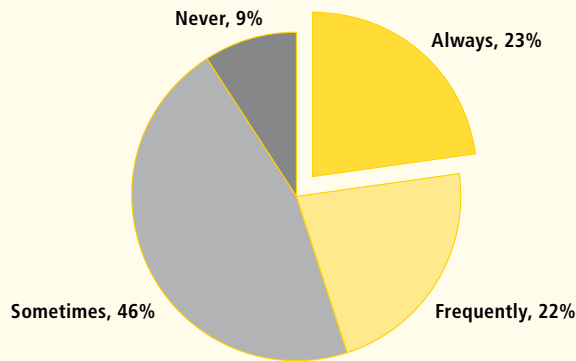*"Online, I only see ads for products I am really interested in anymore."*

Offers are being increasingly tailored exactly to the target user. Consumers are being asked about their preferences and the offers are then made to match. Shoedazzle.com, for example, takes a quiz approach by inquiring about a user's particular taste and then tailors its offer accordingly *(picture source: Shoedazzle.com).*
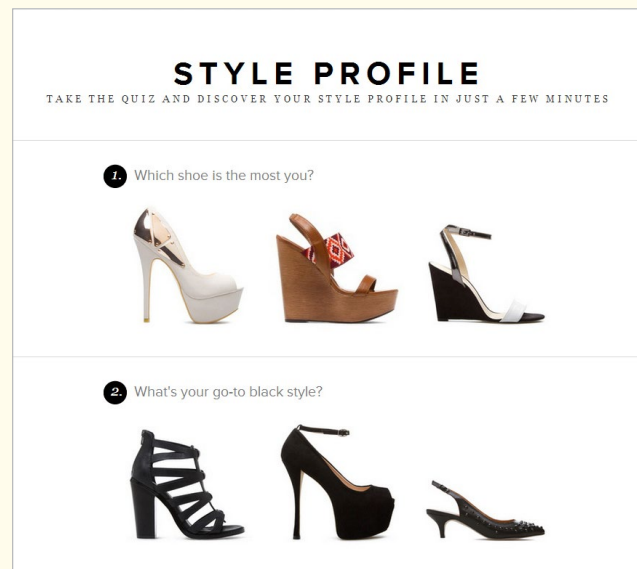
Trend 05: Progressing Data Protection

The growing use of networked technologies and the expansion of e-commerce are raising concerns in the U.S. over issues of personal privacy in virtual environments. A recent survey commissioned by TRUSTe showed that 23 percent of U.S. online consumers are concerned about privacy. A Microsoft study revealed that almost 45 percent of U.S. adults feel they have little or no control over the personal information companies gather. Not suprisingly, data privacy concerns are increasingly capturing the attention of policymakers. Today, the U.S. still lacks any formal legislation that ensures the security of electronically transmitted personal data. But there are signs of change. In 2012, the U.S. government released a blueprint for online privacy and data protection. It proposed, among other recommendations, that consumers should have a right to exercise control over the personal data that companies collect on them and how they

Share of U.S. Online Consumers Worrying about Privacy

Never, 9%

Always, 23%

Sometimes, 46%

Frequently, 22%

Source: TRUSTe

Trend 05

Smartphone Users out of Total Mobile Users in the U.S.

- 2010: 27%
- 2011: 39%
- 2012: 48%
- 2013: 56%
- 2014: 63%
- 2015: 69%
- 2016: 74%

Source: eMarketer

Trend 06

use it. Demand for such regulation will continue to grow as more companies collect and use consumer data. Therefore, new approaches to online privacy will be needed to fully unlock the value lying dormant in personal data and to lower future risks of data misuse. According to a report by the World Economic Forum, companies will have to not only enable customers to better understand how and what personal data is being used but also empower them with more effective choice and control options.
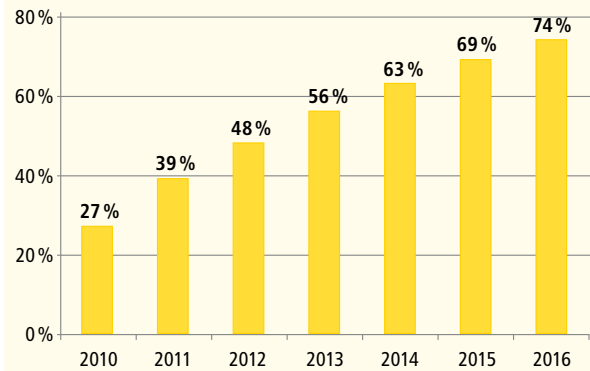
Trend Scouting spotlights in the U.S.:

"Many people will not buy from a website if it does not explicitly state that payment information such as credit card numbers etc. will be encrypted and are safe."

Since the number of identity fraud incidents constantly increases in the U.S., there is much fear about data misuse and identity theft. Therefore, the customer's intuition and trust play an increasing part in online shopping. People look for indicators of credibility and other customers' reviews to decide if an offer is trustworthy or not. These assessments are often not really rational.

Trend 06: New (Intelligent) Interfaces

The growing usage of IT heavily shapes and shakes the way people interact and work. A long time ago access to virtual worlds was exclusively limited to desktop computers at home or in libraries. Today, digital touchpoints are growing in number and variety and persistently pervading daily life. According to Transparency Market Research, the U.S. tablet market will grow from 34 million units shipped in 2012

to 72 million units in 2018. But not only the number and variety of mobile devices and stationary interfaces (including display screens in subways or retail stores) is expected to grow; interfaces will also become more intelligent, giving rise to more individualized and immersive user experiences. Smartphones will be increasingly operated via voice or gesture recognition. Smart sensor systems will autonomously react to peoples' presence and augmented reality applications will enable the real world to be enriched with digital content. In online retail and bricks-and-mortar stores, the use of augmented reality via smart glasses, for instance, will enable customers to better experience product details or let them discover emotional needs for it. IHS predicts shipments of smart glasses to grow significantly in the medium term, driven largely by the availability of Google Glass in 2014. As additional content which can be easily accessed via smartphones or smart glasses is turning into a key driver in future retail, smart interfaces and digital content strategies will become essential for retailers to create unique customer experiences.

Trend Scouting spotlights in the U.S.:

"I am officially for everything."

Best Buy and Tesco, in the UK, among other retailers, are offering augmented reality such as 3D product views. Intelligent interfaces seem to appear almost everywhere and make shopping possible no matter if consumers are in front of a smart advertising poster in the subway station or on their couch in front of their TV at home. Apps such as "Watch with eBay" now offer products on eBay through the tablet. Users can browse and buy items related to the TV shows they are watching. The seamless integration of

Share of U.S. Smartphone Users Using Proximity Mobile Payments

Year	Share
2011	3%
2012	7%
2013	10%
2014	14%
2015	20%
2016	26%
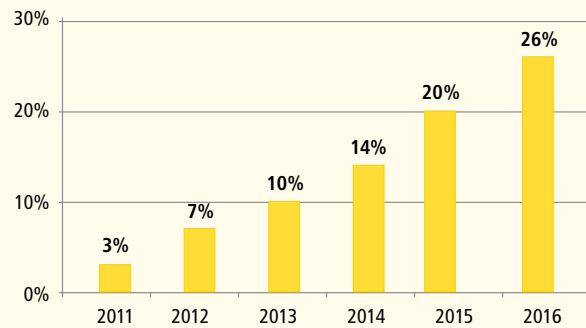
Trend 07

Source: eMarketer

the offers with the intelligent interfaces in peoples' every-day life is essential *(picture source: mobile.ebay.com).*

Trend 07: New Payment Concepts

A substantial transformation of the payment service industry lies ahead. Traditional payment mechanisms are progressively being substituted by alternative virtual payments that enhance payment processes through speed and flexibility. In particular, the use of traditional credit cards in e-commerce is expected to further decrease, as consumers turn to more convenient payment methods that match their digital lifestyles and mobile devices. Javelin forecasts the total volume of virtual alternative payments, such as PayPal or Clickandbuy, to increase from $43 billion in 2010 up to $87 billion by 2015. And digital currencies such as Bitcoin are expected to play a greater role. More and more e-commerce platforms are offering customers the option to pay for their purchases with Bitcoins. A growing convergence of point of sale, Internet and mobile payment systems will be enabled by technologies, such as Near Field Communication (NFC), and by the persistent merger of online and offline retail. Although the U.S. is seen at the forefront of alternative payment solutions, its market for mobile payment systems – or payment transactions conducted via mo-

bile devices – is still in an early stage. But that will change dramatically, analysts agree. Forrester, for instance, expects a 600 percent increase of mobile payments between 2012 and 2017. Future growth of m-commerce will depend to a great extent on the availability of secure and convenient mobile payment systems.

Trend Scouting spotlights in the U.S.:

"Cash is so yesterday. Today, you buy directly with your smartphone."

Not credit cards but barcodes are being used increasingly in the U.S. to make purchases. Barcodes are simply scanned with the smartphone *(picture source: fotolia).*

More NFC-enabled phones are available from suppliers such as Samsung, Sony and Motorola, allowing users to make contactless payments based on barcodes at point of sale.

Share of U.S. Consumers Interested in
Same-Day-Delivery and Their Willingness to Pay for it

76%

- $11–$20
- $5–$10
- Less than $5

7%
5%
12%

Not interested   Interested
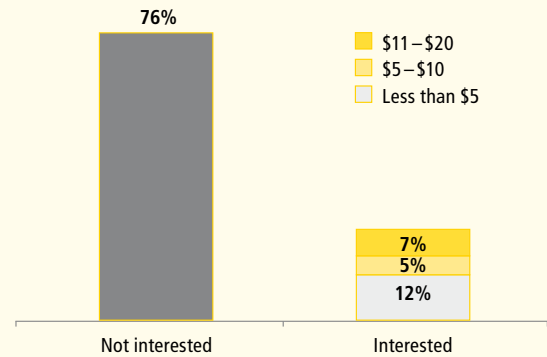
Trend 08

Trend 08: Flexible Delivery

A growing number of retailers and parcel services in the U.S. are introducing innovative concepts beyond the standard shipping times of three to five business days in order to cater to consumers' growing delivery-time and location demands. Retailers and delivery companies, such as the U.S. Postal Service, Walmart and Amazon, are increasingly attempting to offer same-day delivery (or even same-hour delivery), specific delivery windows and parcel lockers in stores and neighborhoods. In this context, private locker boxes at residential houses might also take on greater significance. According to BCG, "must-have-now sensibilities" can be found particularly within the group of customers aged 18 to 34. This is the so-called "Generation C" (C stands for "connected"), which spends twice as much money on the Internet as the average U.S. consumer. Even if the current need for same-day delivery is rather low – only 24 percent of U.S. consumers show interest – it is expected to grow significantly in the future. Driven by omnichannel strategies and the convergence of online and offline retail, customers will also be able to choose more freely between different delivery options, as flexible anywhere- and anytime-delivery options gain traction. So-called "click-and-collect" concepts in which customers shop online and pick up their purchase at the retail store are already showing considerable growth. In the future, product shipping will increasingly be conducted at a scheduled time, date and location that better suits customer expectations. It will be enabled by centralized user profiles and more accurate tracking and tracing technologies that allow for precise real-time delivery monitoring.

Trend Scouting spotlights in the U.S.:

"I don't care as much about the best price as I care about the fast delivery."

A huge trend is fast delivery times. In the U.S., we are talking about delivery times of less than 90 minutes. One such company is the start-up Shutl, which launched in the U.S. in March 2013 *(picture source: Shutl.com).*
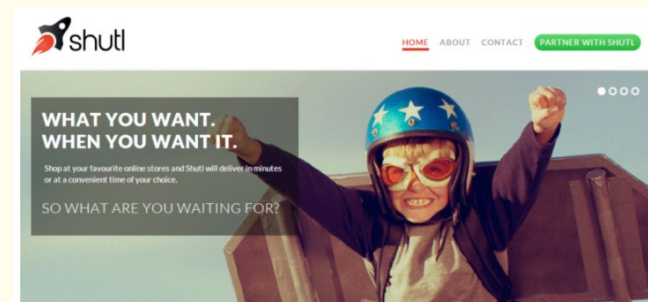
Walmart is testing another flexible delivery option in the U.S., using customers as private delivery services. To be part of the sharing economy and to compete better with Amazon, Walmart plans to send customers from its stores to pick up and deliver packages to online buyers.

"E-Commerce is Affecting All Consumer Goods"

The trends and scenarios presented in this publication outline a differentiated picture of tomorrow's e-commerce. The developments in society, technology and user behavior affect many business areas – from wholesale and retail to IT and logistics. Lee Spratt, CEO DHL Global Mail Americas and one of the company's most renowned U.S. e-commerce experts, shares his views on online shopping in North America.

Based on your experience, how would you describe the situation in online and brick-and-mortar retailing in North America?

The North American retail market is mature and saturated. Brick-and-mortar retail is currently growing at a very slow rate, which we expect will continue. Part of the reason is the economic situation. Until it improves, traditional retailing will grow at a relatively low number. By comparison, online retailing is growing at about 10 percent annually – not because of additional demand but because of a transformation of the industry, with brick-and-mortar customers moving over to online retail.

Which factors are driving this move to online retailing?

First of all, more people are more comfortable about security issues such as the risk of credit card fraud or putting personal information up online. The process of ordering products online has also become much easier. When you look at the big platforms in online retail, they're really becoming search engines for the best priced product – allowing customers to simply comparison shop. Another major driver is familiarity. The more familiar the product, the better a substitute the e-commerce channel is for traditional brick-and-mortar retailing.

How should traditional retailers respond to the e-commerce challenge?

By adapting e-commerce as a sales channel and driving a multi-channel strategy. E-commerce is rapidly spreading. If you look at the brick-and-mortar companies in the U.S., all of them have e-commerce strategies and are investing heavily in their e-commerce sales channels.

What sort of e-commerce growth will we see in the coming years?

Based on today's numbers, we expect online retail to continue growing at double-digit rates at least until 2018. It's now more than 10 percent, compared with 2 percent of total retail in 2000, and most projections see it exceeding 15 percent by 2015. The real question is: How far can it go? Opinions differ. Some people believe it will stabilize at 15 to 20 percent, while others think it will blur with physical channels and reach more than 50 percent.

Given the overall growth of e-commerce, how competitive is the sector?

It's becoming increasingly competitive – some say hyper-competitive. If you look for a product on the big platforms today, 40 people are selling the same thing and differentiating by only pennies.

E-commerce started with books and consumer electronics, but now includes textiles. What could be the next big product categories?

There isn't any one single category; e-commerce is affecting all consumer goods. Take diapers, for example. They're one of the fastest growing categories online. Toiletries, too. And we're starting to see more direct-to-consumer products from some of the big consumer goods manufacturers.

How is technology facilitating the expansion of the e-commerce product range?

Certain product categories such as cars and clothes are still predominantly an in-store buying experience. The online channel is continuously trying to mimic the convenience and trust factor of the in-store experience through technology, such as virtual sitting rooms, 3D images of products you want to buy and someday maybe even holographic images. Specific categories that traditionally have been stronger in brick-and-mortar environments could well move to e-commerce in the future.

Big data is changing the business world. How will it change e-commerce?

E-commerce will become smarter. Continuity programs, based on behavior, will send products to you at exactly the time you need them. This is especially desirable from a logistics perspective, because you can choose the most effective mode of transportation. That principle is already at work today in intelligent thermostats, which figure out your behavior and then control the temperature for you. There will be a lot of digital intelligence in the e-commerce processes in the future.

Potential New Patterns in U.S. E-Commerce

The trends explained before describe the future of U.S. e-commerce if current developments remain stable, which will probably not be the case. The sector is still young and has experienced high but erratic growth during the last decade. Deutsche Post DHL also looked at the signals indicating new retail patterns in order to assess the future of e-commerce over the next decade. In the U.S., signs of a new do-it-yourself (DIY) culture and a new re-energized consumerism are emerging, raising questions about the retail landscape and the way e-commerce platforms work. New e-commerce services would be possible if the availability of personal data increases massively. In contrast, the growth of online shopping as such would be threatened if peoples' online or buying affinity decline.

New Pattern 01: DIY Culture

Individualism and technological progress could lead to a boom in more self-designed and self-produced products. In the coming decades, DIY could evolve from a niche into the U.S. mainstream and trigger a consumer revolution by changing the relationship between customers and companies.

Already today, DIY is not limited to the creator's own use. The Internet enables people to become "prosumers" and sell DIY products online. Since 2005, Etsy, which exclusively facilitates P2P commerce of handmade items, has grown to 25 million members who in 2012 alone sold 100 million items worth $900 million, up 70 percent over the previous year. If DIY commerce platforms maintain their strong growth, they could pose a threat to some established e-commerce retailers.

Advances in 3D printing and individual fabrication could be an important growth driver for the DIY segment. Entry-level prices for 3D printers are nearing $1,000. Staples announced plans to become the first major U.S. retailer to sell 3D printers in the near future.

New Pattern 02: New Consumerism

Driven by low energy prices and an increase in free trade, the U.S. economy could grow at much higher than expected rates and increase job security and household incomes accordingly.

E-tailers are focusing their business models on absolute price competitiveness. Consequently, the big platforms are capturing huge market share. This growth model could be shaken if product prices lost much of their importance for a considerable number of consumers.

The exploitation of shale gas and shale oil deposits is strongly influencing the development of U.S. energy prices. The reindustrialization of the U.S. economy, accompanied by an increase of manufacturing jobs, appears plausible. A PwC study argues that due to the effects of lower energy prices, U.S. GDP could be 3 percent to 5 percent higher than expected by 2035. As for free trade, the U.S. Chamber of Commerce estimates that the envisaged trade agreement between the U.S. and the European Union would increase the economic output of both by more than 3 percent in total.

New Pattern 03: Universal Data Traces

Within the next decade, e-commerce and social platforms might know their users better than they know themselves, as data traces of consumers will further increase. Edison Research reports that the number of Americans using social networking sites several times a day grew from 12 million in 2008 to 58 million in 2012. The rising data volume and analysis might be an enabler for radical changes in e-commerce, such as predictive purchasing, which anticipates demands

and distributes products even before consumers have articulated a desire to purchase.

Not only suppliers but also consumers could have plenty more information available to them. Assuming only moderate breakthroughs in image analysis, smartphones and smart glasses could recognize any product or person on the street. Based on augmented reality applications, extra information could be displayed. Every product would thus have a universally accessible data footprint. Online shopping would become even more mobile and spontaneous. "See-like-buy" would truly become a one-click experience.

New Pattern 04: Digital Saturation

In the next 5 to 10 years, cyber crime and information overload might lead to a digital saturation in the U.S., including a decline in the usage of online services including e-commerce, e-banking or social networks.

First signs of a growing dissatisfaction with Internet-based applications are already visible. People are increasingly complaining about living in a world super-saturated with partly unwanted digital stimuli. In 2012, 69 percent of all e-mail traffic was spam, according to Symantec. And each Internet user is confronted with over 1,700 banner ads per month. Not surprisingly, people are becoming increasingly hostile to digital advertising.

They are also more afraid of cyber crime. According to Cyber Source Cooperation, consumer and merchants in the U.S. lost 1.0 percent of their online revenues to fraud in 2011, totaling $3.4 billion – an increase of $700 million over 2010. And the TRUSTe Privacy Index found that only 9 percent of U.S. consumers have complete trust in companies to protect their personal information online.

A massive digital saturation would undermine the e-commerce business model as such.

New Pattern 05: Own Less, Do More

The way people consume could change fundamentally within the next decade, driven by economic and ecologic pressure. Leasing, renting and sharing could replace the paradigm of exclusive ownership to a large degree. "Own less, do more" could be the slogan of a whole new using culture.

Today, rental and leasing in the U.S. is basically limited to cars, real estate or specialty products like party supplies. However, with younger Americans increasingly wary about making large purchases and preferring to stay flexible, leasing might become a more common model in other product categories as well. A 15 to 20 percent share of leasing durables such as TVs, refrigerators and washing machines seems possible by 2025 and would have major consequences for manufacturers and retailers.

Additionally, both B2C and P2P sharing is a rapidly growing market with disruptive potential. Frost & Sullivan projects that 7.5 million Americans could be car-sharing members in 2020. But sharing could go much further. A whole sharing economy could emerge, with millions sharing their less used products like tools, cameras or outdoor gear via B2C or P2P platforms.

There are many more visions about the future of e-commerce. But one thing is for sure: mobile shopping will have a huge impact in the coming decades and logistics will be part of that change.

Deutsche Post DHL