Illustration by Sylvia Neuner

U-channel retail – Transformation of the retail function toward a new model that is ubiquitous, universal and unique

François-Joseph Van Audenhove, Dirk Luyten, Rémi Sapin, Michael Opitz

While retail has always been at the heart of everyday life, it has never stopped evolving and has never been changing as rapidly as it is today. Just as many retailers are still transitioning to online retail, with varying degrees of success, the new wave of change in retailing is already upon them. As new customer needs emerge, today's new technological solutions are supporting the development of new business models.

This evolution naturally concerns the traditional high street retailers but also the wide spectrum of B2C companies with developed retail activities. This includes banks, telecommunication operators, postal operators, utilities providers and many more. In this article, we provide insights into how to capitalize on this new form of "U-channel retailing", which in the long run will profoundly remodel the landscape of any company with a retail function and require companies to begin to scope the field, understand the challenges at hand and position themselves to seize, to the maximum extent, the opportunities associated with this evolution.

The retail landscape has changed tremendously in recent years, but new business models are still emerging as new customer needs and technological solutions arise, transforming the landscape even further. Tomorrow's retail function will evolve towards a U-channel model, one that is ubiquitous, universal and unique and that is assembled by the customer. This article provides insights into how companies can capitalize on this new form of retailing.

Evolving customer needs

Retailers currently face a significant change in customer behavior, driven by demographics and the emergence of technological solutions. Customers now want to have the ease and flexibility of shopping whenever they want and wherever they are, posing new challenges to the traditional retail function.

By 2030, two demographic profiles will dominate the customer base of retailers:

1. Greying baby-boomers

2. Millennials in peak consumption age.

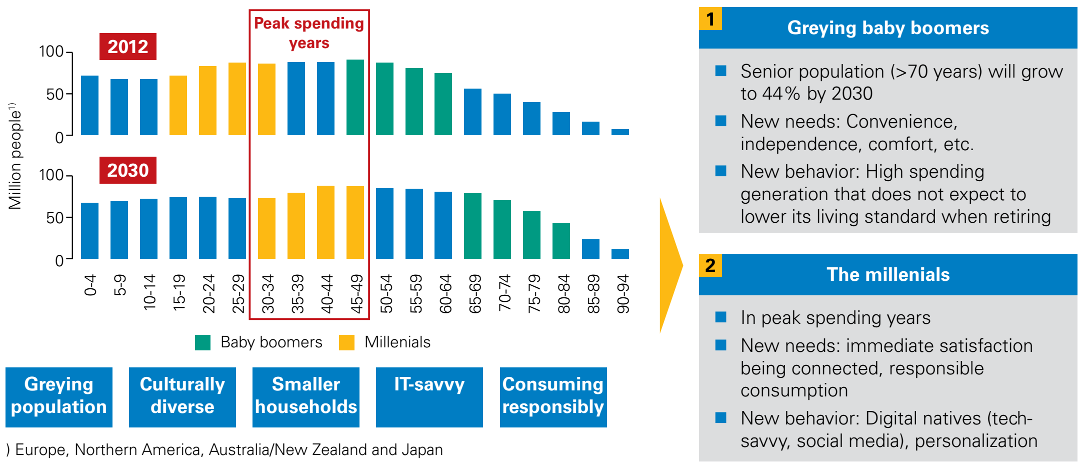

Table 1 **The 2030 customer** *Source: UN Department of Economic and Social Affairs, Arthur D. Little analysis*

The baby-boomers – people born between 1945 and 1965 – are now entering a new phase never previously encountered: wealthy retirement. This paradigm shift will add new dimensions to the baby-boomer segment in terms of required product offerings but most importantly in terms of customer experience and service. Baby-boomers are adapting to and embracing evolving technologies. By mid-2012, for instance, almost 60 % of US tablet owners were older than 35 and almost 20 % were older than 55[1].

In parallel, the millennials generation – broadly defined as the Internet generation born between 1980 and 2000 – is now entering its peak consumption age. This shift promises to have a drastic impact on all forms of retailing. The millennial customers have been categorized as technologically savvy, socially influenced and socially influencing shoppers. Their heightened technological literacy and their tendency for high involvement – such as through social media – pave the way for radically changing business models. The key stimulus for business model innovation will be the new needs that this group brings to the market, such as convenience, ultra-personalization and authenticity, but these needs are bound to be met through innovative technology and communication models.

The solutions required to serve the needs of millennials will challenge existing business models and provide opportunities for new entrants

The 2030 customer base promises to be a dual one, balancing the comfort needs of greying baby-boomers and the technologically and socially enhanced shopping experience needs of the millennials. Responding to these two customers groups will be difficult and will require both adding modularity to the customer experience and letting the customer take the driving seat in the buying process.

Rapidly evolving technology as an enabler of customer-driven innovations

In parallel with evolving customer needs, the retail sector is experiencing a strong technological push to provide customers with new business models. New technologies such as mobile payment, Quick Response codes (QR), Near Field Communication (NFC) and image recognition are triggering new value offerings from retailers and enabling them to optimize their operations (see Table 2 for a selection of technology push innovations).

The largest technological disruption remains the penetration of mobile data and mobile devices. While some retailers are still in the process of rolling out an online strategy, the mobile revolution is already providing them with new challenges. Although there is still room for growth through e-commerce, the mobile revolution is creating new benefits for customers as well as opportunities for retailers.

[1] Source: comScore TabLens data

While providing opportunities, these new technologies will also pose significant challenges to retailers by taking them outside their comfort zones. Choosing technological platforms and solutions may require significant investment, requiring a clear and strong financial business case and having long-lasting effects on the business. Furthermore, the increasing reliance on technology and the digitization of retail will contribute to blurring the line between traditional retailers and telecommunication, media and information companies.

Technology	Applications	Examples
Mobile connectivity	■ Mobile comparison ■ Shopping assistance ■ Mobile scanning ■ Mobile apps	■ Wal-Mart iPhone self-checkout ■ RedLaser mobile scanning
QR	■ Code promotions ■ Buy-on-the-go ■ Advertising campaign ■ Virtual shops	■ Delhaize direct cube in train station ■ Wal-Mart and P&G mobile truck
NFC	■ Mobile payment ■ Shopping assistance ■ NFC based ordering	■ Google Wallet ■ 7-Eleven NFC kiosk
RFID	■ In-store security ■ Inventory mgt. ■ Rapid check-out ■ Shelf mgt.	■ C&A in store RFID tag ■ Shelf mgt.
Social media	■ Brand building ■ S-commerce ■ Customer involvement	■ Coca Cola ■ P&G Facebook brand stores ■ Lidl promotions
Real-time data availability	■ Product search conversion ■ Optimized product recommendations	■ Wal-Mart's Polaris search engine ■ Simply Market's electronic shelf labels
Biometrics/ Image recognition	■ Personalization ■ Quick buying process ■ Product information	■ Ahold's bol.com shopping app with book image recognition
Augmented reality	■ Enhanced marketing campaigns ■ Interactive product testing	■ Ikea virtual catalog ■ Goertz virtual shoe store
Robotization	■ Inventory management	■ Amazon's acquisition of robot maker Kiva Systems

Table 2 **Overview of enabling technologies**

Source: Arthur D. Little analysis

U-channel retailing

In response to these evolving customer needs and supported by these new technologies, retailers are starting to develop a new form of retailing: U-channel retailing. U-channel retailing stands for a retailing business model that is:

- Ubiquitous – Existing and being everywhere at the same time; constantly encountered
- Universal – Affecting the world as a whole
- Unique – One of a kind, unlike others
- Assembled by "U", the customer.

U-channel retailing implies a multiplication of client-facing channels designed to respond to new client needs.

A future-proof U-channel strategy means offering the customer more channels for interaction while seamlessly integrating these channels to ensure 'one face to the customer'

In practice, tomorrow's shopper may identify a product on their mobile phone, read online reviews of it on their laptop, interact with a sales agent via online chat, then 'click-and-collect' it from a pre-determined pick-up point in a physical store.

This requires an array of online, physical, mobile and mail-order sales, product delivery and customer support channels. The implications for retailers are tremendous for both front and back-end operations. This variety of customer channels requires intensive coordination and cross-channel visibility to allow for global order fulfillment, flawless communication routines between all sub-systems and harmonized processes to serve the customer fluently in their purchase as well as assist them with after-sales service.

The transformation to U-channel retail has already started as customer behaviors are shifting increasingly rapidly in all markets. Research has shown that omni-channel shoppers spend up to 15-30 % more than multi-channel shoppers[2] and are trendsetters

[2] IDC Retail Insight

U-Channel Retail	
Ubiquitous:	Being everywhere at the same time Constantly encountered by the customers
Universal:	Affecting the world as a whole
Unique:	One of a kind, unlike others Retailers will offer customized products and services to the buyer's choice
Assembled by "U"	Decisions will be centralized in the hands of the customer Retailers will evolve towards a pull mode

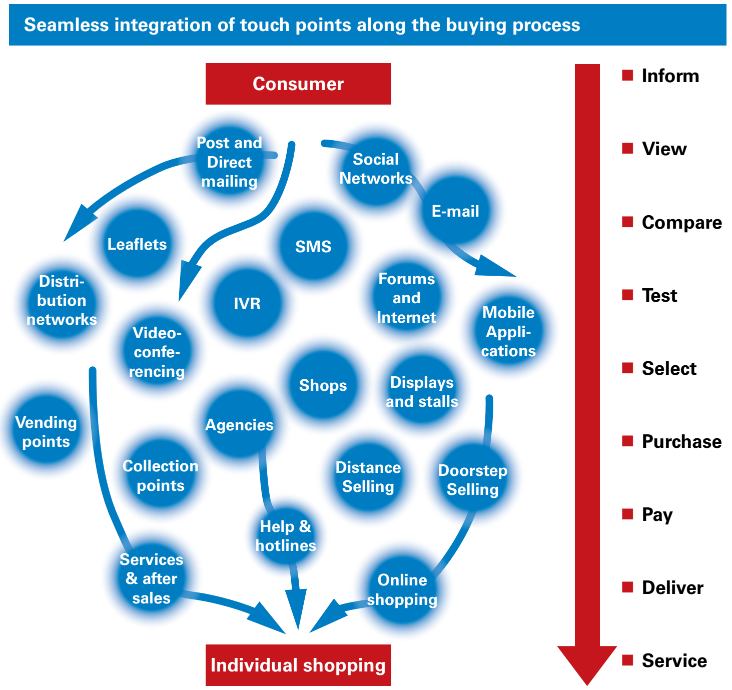

Table 3 **U-channel retailing**

Source: Arthur D. Little analysis

who exhibit strong brand loyalty. Traditional retailers as well as new entrants who develop new U-channel-oriented business concepts and solutions are gaining a first-mover advantage, as illustrated in this article by the Tesco and Emmas Enkel case studies respectively. Preliminary analysis indicates that they outperform their peers in terms of EBITDA margin and growth rate by 2 % and 3 % respectively[3]. The shift to U-channel strategy poses a number of key questions for today's retailers:

- What will my business model(s) look like tomorrow?
- How should I adapt my channel strategy and value proposition?
- What does this mean in terms of underlying technology choices?
- How do I align my organization to realize an efficient business transformation?
- How do I maintain ownership of my clients while digitizing my business?

Transforming successfully towards a U-channel environment

The U-channel challenge is both a short and long-term race. Developing true U-channel retailing is a multi-year program requiring well-thought-out roadmaps. However, it is only by beginning to think about it today that retailers will be able to craft the organization, technology, process and partnerships required to succeed in tomorrow's retail environment and retain ownership of their customers.

To begin this thinking, companies should follow a structured approach:

1. Reflect on the new normal

The evolution of multi-channel retail does not impact all business models and consumer segments in the same manner. Some consumers will prefer the convenience, low-frills approach to multi-channel while others will seek an enhanced service and experience. As such, it is essential for retailers to understand how U-channel affects their current and prospective customer base. This requires retailers to review their current customer segmentations and project themselves into their desired customer base.

2. Assess current state

Today's retail activities all encompass different forms of multi-channel elements. However, it remains difficult for organizations to assess their level of readiness for U-channel retail, both from an external perspective (in channel strategy and value proposition) and from an organizational, inside-out view (in culture, processes landscape, governance, IT architecture and workforce practices).

[3] Arthur D. Little, analysis of historical performance of retailers showing U-channel characteristics vs. peers over the past three years

3. Define desired state

Bringing together the understanding of the new normal and the maturity assessment of U-channel practices will enable companies to project themselves into the future and define their desired future state. Future states should be defined in terms of external offerings to the customer and also provide a clear vision of how internal processes and functions will need to evolve to support tomorrow's company.

4. Business case and roadmap

As always, financial and time constraints play a significant role in a transformation program. At a stage where the industry is dabbling with new retail concepts, it remains difficult to distinguish proven, valuable concepts from marketing stunts. Within a transformation program all business cases should be clearly evaluated and a development plan needs to incorporate uncertainty on technologies and customer behavior.

We believe that in order to assess and develop comprehensive U-channel strategies, retailers need to address seven key dimensions:

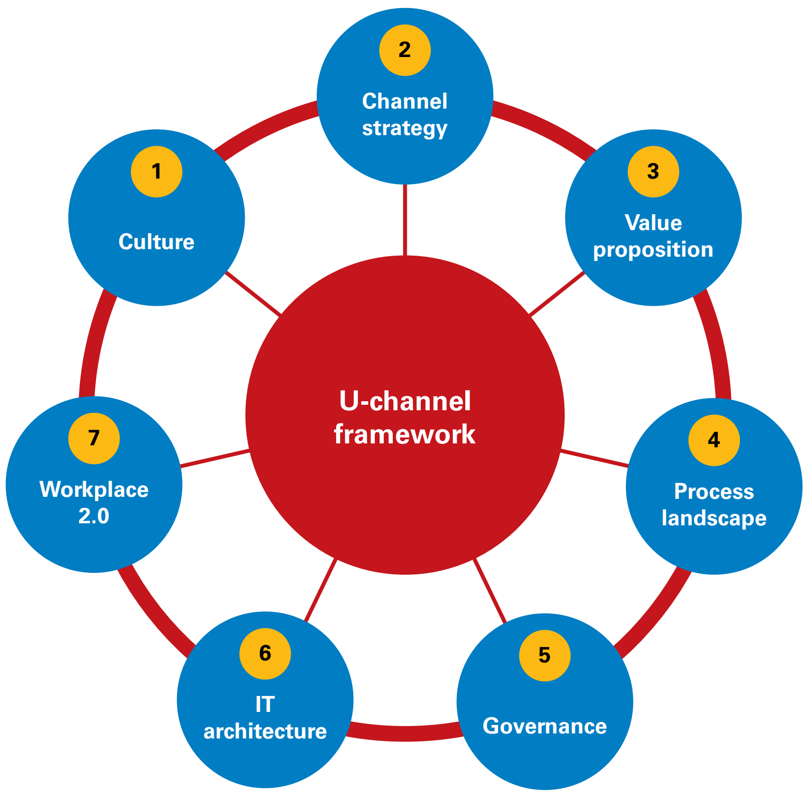

Table 4
U-channel framework
Source: Arthur D. Little analysis

Case study 1: Tesco – Pioneering U-channel transformation

The UK retailer Tesco is one of the pioneers in developing U-channel solutions to respond to changing customer needs and evolving technology. Over recent months and years Tesco has embarked on an extensive transformation program addressing client-facing channels and internal processes simultaneously.

Some of Tesco's key initiatives include:

- Multiplication of channels and touchpoints: To answer to the new omni-channel trend, Tesco developed online, mobile, drive-through and self-service stores next to its classic physical stores. The new mobile site, which was awarded the golden Channel Innovation Award 2012, significantly improved sales and ROI on mobile efforts.
- Implementation of data-driven decision-making: To leverage data capture, Tesco implemented a new data analytics model to aid decision-making and drive assortment and pricing in line with customer demand.
- Investing in IT architecture: In order to support the multiplication of channels in a seamless environment, Tesco invested $100 million in a new IT architecture, enabling all channels to run on a unique IT platform.
- Optimizing merchandising processes: In order to shorten merchandising processes and assortment layout, Tesco invested in the deployment of virtual reality software. This software enables merchandisers to effectively visualize store aisles and to simulate various product assortment and layouts prior to store implementation.
- Workforce productivity through collaborative platforms: Tesco is launching Microsoft Office 365 to foster global collaboration and sharing across the company. In addition, the role of Office 365 is supporting a culture shift for Tesco employees, putting technology and flexible working in their hands.

Through its multiple initiatives, Tesco has developed a solid reputation as a leading U-channel retailer. Its focus on innovative business models has already led it to capture 57 % of the UK online grocery shopping market and the company plans to leverage these platforms to international markets as it transforms itself externally and internally.

Migrating to a U-channel retailing model requires progress in parallel on each of these dimensions. Within individual companies some dimensions may be more advanced than others and some may require more important and fundamental transformations. Retailers coming from different backgrounds – think bricks and mortar vs. e-commerce – will face different challenges but they will all have to deliver on these dimensions before performing optimally as a U-channel retailer.

1. Culture

U-channel retailing requires a cultural shift from "delivering products" to "delivering solutions" and from "selling to the client" to "helping the client to buy". In this context, technology will play an increasingly central role and evolve from control-enhancing tools to experience-enhancing tools, providing customers and staff with comprehensive and dynamic information on value proposition and offerings. This will require staff at all levels (in front and back offices) to further develop their "technology familiarity" and entrepreneurship as they respond in real time to customer inquiries that will dynamically uncover additional customer needs. To that effect, corporate culture will need to evolve toward one that enables easier introduction of radical innovation and the new ventures models required to enable transformation.

2. Channel strategy

Channel strategy needs to reflect the evolution of customer purchase and consumption habits and match the evolving needs of different customer segments and product categories. In many cases, customer-oriented access channels need to be multiplied to increase customer capture and be better integrated to each other. At the same time, the concept of channels in itself may disappear, to be replaced by "touchpoints", as channel integration will make it difficult to distinguish one channel from another and the concept of "physical channels" will gradually be replaced by "solution offering".

Full online/offline integration and alignment on the marketing 4Ps (product, place, price and promotion) will be required to maintain "one face to the customer" and avoid misalignment of customer and product information. At the same time, adaptations need to be made to the product mix to reflect difference in cost structure across channels. Of particular importance for retailers will also be the further development of brand positioning and services via social networks.

Finally, the role of the traditional bricks-and-mortar channel will also evolve, implying a key re-evaluation of store format, layout and location strategy.

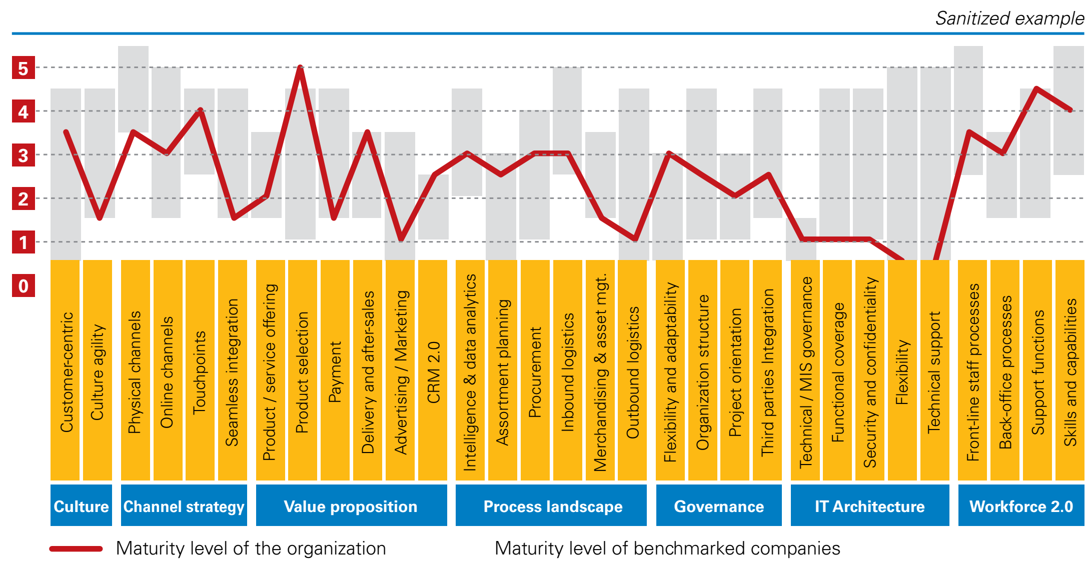

Table 5 **U-channel diagnosis**

Source: Arthur D. Little analysis

3. Value proposition

The retailer's value proposition needs to be redefined in terms of customer segment and product categories as customers may react differently based on the moment in time at which they are being addressed (e.g. private life vs. professional life) and adopt different purchasing modes from one product category to another. In order

Case study 2: Emmas Enkel – A new entrant U-channel retailer

Emmas Enkel, the Düsseldorf-based food retail start-up founded in 2011, is already becoming a household name in retail innovation. The company was recently rewarded for its innovative "Mom and Pop store" concept. This consists of reinventing a traditional grocery corner shop into an innovative cross-channel concept integrating modern technology.

Emmas Enkel provides several shopping channels and delivery options. Customers can either hand a shopping list to an assistant, who will pack the items while they relax in the lounge area, or they can buy the goods online using an iPad or a smartphone and either wait in-store or have the goods delivered at home. Alternatively, customers passing by outside opening hours can make use of a QR code wall outside the store displaying more than 400 products.

In mid-2012 Emmas Enkel launched a pilot project in collaboration with Vodafone to add a fifth channel, consisting of a virtual multi-touch wall inside the store, offering a similar experience to the use of a tablet or smartphone. The scanning app does not require QR codes but recognizes the displayed products and payment occurs via a mobile app. Advantages of such a virtual wall are the smaller store size required and lower rental costs. Two thirds of the store area are dedicated to warehouse space. Emmas Enkel uses this virtual wall to offer a very innovative and optimized product assortment. Unlike a fixed printed poster, it can constantly be updated to adapt to local preferences and can be changed to better fit the time of day,

For Vodafone, the pilot project is part of its strategy to network different sectors with mobility, security, cloud and machine-to-machine (M2M) solutions. A prototype wall will be installed in mid-2013 at Vodafone's new corporate HQ in Düsseldorf, providing Emmas Enkel with good exposure to more than 5,000 people working there. The platform was developed by SALT Solutions, which provides integrated solutions along the process chain.

Emmas Enkel is enjoying high growth and the share of its online business has increased tremendously. While in the first month after opening about 10 % of sales were generated online, they accounted for more than 50 % of sales after six months. In March 2013 the company opened a branch in Essen, 40 kilometres from Düsseldorf, and more stores are being planned, as well as other virtual walls with interested companies.

to optimize their value proposition, retailers will increasingly need to evolve towards a modular approach based on a physical and virtual backbone.

While traditional value propositions (e.g. price, quality, depth and width of assortment) are expected to remain important, they will need to be complemented by additional services and value offerings (e.g. fastest delivery, seamless shopping and personalized shopping experience) to respond to evolving customer needs.

Alongside the development of additional services (making optimal use of channel multiplication), retailers also need to strengthen their value proposition in the physical store, which is expected to remain a key component of the retail experience. Key differentiating aspects to consider include the introduction of new store formats and concepts, the use of innovative technologies to improve the quality and speed of the buying process and the development of learning initiatives to further improve customer experience.

4. Process landscape

Along with the transformation from traditional to U-channel retailing, retailers will need to ensure that their key processes evolve from lean to agile. Whereas the emphasis on process simplicity and automation will remain in order to reach cost efficiency throughout the value chains, it will also become essential to adjust processes to become more responsive through increased flexibility. Much like IT agile practices, processes will require optimization across the value chain to connect all (internal and external) operators and individual application modules onto shared platforms to increase flexibility and optimize outputs.

Of paramount importance will be the further development of customer intimacy and CRM processes, along with the data analytics processes required to manage "big data sets", as retailers increasingly need to understand and influence the specific expectations of consumers in order to stimulate sales.

Logistics and stock management processes (stocking and replenishment, picking and packing, and delivery) also need to be reviewed to reflect channel multiplication with an increasing number of operators and increased customer expectations in areas such as improved visibility on stock, extended delivery time (toward 24/7), home delivery, tracking and extended service reliability.

5. Governance

U-channel retailing will provide considerable opportunities in terms of organizational learning and synergy generation. In order to realize these gains, information will need to be shared and aligned across channels to obtain enriched views and share best practices. The built-in agility we discussed in the process landscape will also need to be reflected in fast decision-making and fast corrections, while the number of actors involved in implementing decisions will increase. Clear allocation of responsibilities between channel manager and support functions (marketing, purchasing and category managers) will be required as the importance of real-time collaborative decisions will increase.

Furthermore, project orientation will need to be further developed in organizations to sustain continuous improvement and allow for flawless integration of new "touchpoints" while avoiding disruption to operations.

6. IT architecture

IT architecture will need to evolve in line with business requirements and should support and strive towards a shorter time to market for both on and offline offerings. IT architecture will need to reflect the need for efficient data-sharing and rapid integration of new business process modules from internal or external parties. Data should be kept separate from applications or functions, in order to remain dynamic and provide higher-value knowledge.
In the past, retail IT was all about mainframes and POS technology that provided the only link between the store and the corporate centers. The future is not only centred around using the cloud in the area of data centers, operating systems, storage, back-ups and related security, but much more in the area of mobile applications. In the online world, artificial intelligence, semantic analysis, data mining and image recognition need to be combined into powerful point solutions enabled by 4G capacity, while the in-store usage of (bi-directional ultra-low power) NFC solutions will see the emergence of a rich offer of real-time CRM solutions.

Illustration by Sylvia Neuner

The evolving retail function across industries

Classical high-street retailers often capture the spotlight but retail as a function is evolving globally, and other industries have taken the lead and developed offerings which are addressing evolving customer needs and capitalizing on new technologies.

- **Banking:** Banks are leading the way in developing channels and touchpoints for their clients. This sector has capitalized on new channels to streamline operations and reduce non-value-adding activities. Today, account balances are checked on mobile phones, transfers are made online and advice is provided in retail branches. By charging clients for non-value-adding activities, banks are incentivizing their customer base and reducing their own process costs.

- **Postal operators:** Postal operators around the world are reviewing their channel strategy as a means of enhancing the post office experience. Through the development of automated parcel sending and delivery boxes or home-printed stamps they are able to extend their footprint at a minimal cost while increasing convenience for customers.

- **Telecom operators:** Traditional telecom operators are being challenged from many directions and have to streamline their operations and become increasingly virtual. More and more, operators enable the purchase of products and services online and through mobile applications. Similarly, as the number of device and network access points increases, operators are developing single client recognition and multi-platform offerings, e.g. at home, on the move and at Wi-Fi hotspots.

7. Workforce 2.0

Tomorrow's workforce will gain in interactivity. As customers become better informed and linked to multiple channels, client-facing functions will need to face a similar evolution in order to compete with information provided by the internet.

Front-line staff functions will evolve in line with selected value propositions that may involve additional features ranging from specialist product advice to assisting in a more efficient buying process. Ideally, sales functions will be in a position to "augment" customer needs as they respond in real time to customer inquiries in the store that will uncover additional customer needs. These may reside in any of the available value-chain options, such as store pick-up or home delivery, but also in pure sell-on opportunities that consumers may normally satisfy in other retail stores; thereby potentially increasing ticket values as cross-channel sell-on capabilities develop. Support functions will also see important reshuffling as technology reliance increases and the stress on innovation and project management continues to grow. New functions, such as social network agents and data miners, will need to be introduced.

Dimension	Best-practice examples
1. Culture	• Nordstrom's inclusion of agile software development in retail innovation through in-store innovation labs.
2. Channel strategy	• Coolblue's transition from online pure-play to brick-and-mortar stores in order to answer customer needs for direct product contact and same-day deliveries. • Nespresso's seamless integration of new channels and touchpoints (e.g. boutiques, bars, mobile, interactive sales kiosks) through unique customer identification by means of a customer's coffee machine serial number. • Burberry's new flagship store in London replicates the at-home online shopping experience by bringing the online/mobile and physical store into one place
3. Value proposition	• Chefday's new offer of exclusive video recipes from New York's most famous chefs, combined with delivery of all the ingredients needed to create the meals to the customer's doorstep. • Shopkick's CRM app offers users rewards for walking into and buying items in partnering stores in the form of "kicks". This is a fully automated process, as a signal is picked up by the customer's smartphone at the shop's entrance. These kicks can then be traded in for coupons, reductions, iTunes gift cards or free restaurant meals.
4. Process landscape	• Amazon's acquisition of Kiva illustrates the shift of core competences from marketing and sales excellence to logistics excellence. • Oracle is providing retail assortment planning tools, supporting and automating assortment decision-making processes through the incorporation of structured data and business intelligence.
5. Governance	• Coca-Cola has developed a center of excellence for mobiles to ensure that all learning is collected and shared throughout the organization and licensing partners.
6. IT architecture	• Retalix's multi-channel IT platform offers a common IT architecture to support all different sales channels and touchpoints, based on a unified data layer, a unified business logic layer and a single client presentation layer across all channels.
7. Workforce 2.0	• Apple's infamous Geniuses have revolutionized staff management by evaluating staff on their ability to help customers solve problems and not on sales KPIs.

Table 6 **Best-practice examples**

Source: Arthur D. Little analysis

These evolutions will require employees to master a different set of skills and capabilities, requiring retailers to adapt their core HR processes (recruitment, training, assessment and career development) and develop new incentives schemes for staff at all levels.

Many retailers have started this process and are developing best practices in responding to the U-channel challenge. The table on the previous page provides a selection of best practices across the different dimensions of the U-channel framework.

Insights for the executive

Key trends observed for many years in the retail function are gaining momentum as retailers are starting to address the issues and adapt their business models and value propositions. While today's adaptations often remain at a pilot stage, they are the prequels to a more radical redefinition of the retail function.

Tomorrow's retail function will evolve towards a U-channel model, a retail model that is ubiquitous, universal and unique and that is assembled by the customer. This does not only impact traditional high street retailers, but also all other industries that deal with "retail as a function". The recipe for success in U-channel retail will not be one-size-fits-all and requires retailers and any other sector with a retail function to revisit their fundamentals: who are our target customers and how do we segment them, what will be tomorrow's business model(s) and value proposition(s), which formats, technology and partnerships will be required to capture customer value to the greatest extent?

The migration towards U-channel retailing will be a positive change for customers and retailers alike. It provides the opportunity to increase value creation for the retail function and to rethink retailing business models both in the front and back office. Identifying the right strategy and business model is not easy and will require many incremental and iterative steps. Nevertheless, today's executive needs to scope the field, understand the challenges at hand and set the direction for future developments.

François-Joseph Van Audenhove
Is a Partner in the Brussels office of Arthur D. Little. He is a member of the Strategy & Organization Practice with a primary focus in the Travel & Transportation and Retail industries.

Dirk Luyten
Is the Managing Director of Arthur D. Little Benelux and is based in Brussels. He is a member of the Strategy & Organization Practice and the Consumer Goods & Retail Practice.

Rémi Sapin
Is a Consultant in the London office of Arthur D. Little and is a member of the Strategy & Organization Practice.

Michael Opitz
Is a Director in the Munich office of Arthur D. Little and is a member of the Central European TIME (Telecommunications, Information, Media & Electronics) Practice.

The authors would like to thank Volker Lemberg, Ségolène Jacmin, Sam Dejongh and Arnaud Schoenmakers for their valuable contributions to this article and the underlying research.