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**Article**

## The Influence of New Technologies on Retail in Switzerland

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# Marketing Review St. Gallen



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## Digitalisierung am PoS

# The Influence of New Technologies on Retail in Switzerland

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E-commerce is definitely on a growth course. Stationary brick-and-mortar trade will not completely disappear, but it will change drastically under the influence of new technologies. It therefore makes sense to consider physical shops not exclusively as sales areas. Rather, the question should be which tasks can only be executed in real shops and which e-commerce techniques can be transferred to the physical world. This article examines the current developments in Switzerland and gives recommendations on how to adapt.

**Dominik Stocker, Laura Mark**

**T**he boundary between online and offline retail is increasingly disappearing, forcing companies to adopt an omni-channel strategy. Despite strong e-commerce growth (Nielsen estimates that the global online fast moving consumer goods (FMCG) business will grow at around +20% per year by 2020), around 85% of all sales transactions are still performed in brick-and-mortar retail (Nielsen 2017).

### **E-Commerce and What Traditional Trade Can Learn From It**

E-commerce retailers' online stores, and the digital environment in which they operate, are perfectly equipped to monitor consumer behavior. Their insight regarding the e-commerce retail environment is so granular that they understand the path to purchase and the price elasticity at the level of the individual consumer – something even brick-and-mortar retailers with sophisticated loyalty programs struggle to do.

Bringing brick-and-mortar retailers to data parity with e-commerce will be challenging. Retailers have been assembling a holistic view of their businesses for decades using data warehousing and business intelligence software. But that view is limited, for example to sales and to in-store observation data as provided by product displays and price banners. Retailers use analytic techniques to infer the extent to which a display affects consumer behavior, but they cannot directly and continuously measure that effect. This is very different for e-commerce retailers, who only need to add a few lines of code to a website to capture extensive information about consumers and their environment. Gathering the same information in the real world requires installing physical devices to capture the data of interest in all the relevant places. These devices must then be con-

nected so that the captured data can be transmitted to a hub for further processing. However, the increasing prevalence of these digital technologies – including mobile phones, the “Internet of things”, wearables and smart objects (from supermarket shelves to entire cities) – now makes it possible to address the problem of instrumenting the physical world. It will soon be possible to record big data about physical consumers and their environment. This will let retailers directly measure consumer behavior that they previously had to infer from secondary signals. So, for example, data from beacons, in-store cameras, point of sale and loyalty apps will allow retailers to know whether a consumer actually paused to look at a display before making a purchase.

### **The Drivers Behind FMCG E-Commerce**

“Digitally connected” is the phrase that probably best describes the consumer behavior of recent years and it also sets the direction in which trade and manufacturers have to go in the near future. More and more consumers, services and offers go online, changing existing habits and creating new behaviors. This behavioral change also affects the way we buy. Digitalization is giving consumers more and more opportunities to shop and is improving the access to products and services. Many consumers are taking advantage of these new possibilities and the freedom to buy anything, whenever and wherever they want. Globally, there are still huge differences in the distribution and use of online commerce, but major economies such as China and the US are showing clearly that e-commerce is definitely on a growth trajectory. In Europe, especially in the UK and France, e-commerce is also becoming increasingly popular. Nielsen has identified four key growth drivers that will continue to drive

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e-commerce over the next few years (Nielsen 2018):

- consumer demand,
- retail infrastructure and offerings,
- ecological and cultural factors,
- logistics.

The first factor, “consumer demand”, is an obvious driver behind the growth of e-commerce. Consumers are more and more connected to the internet and getting increasingly used to having a virtually endless selection of products at their fingertips. They are beginning to expect an assortment that corresponds to their preferences and a continuous and seamless omni-channel experience. Thus, it is important to win the trust of consumers not only in traditional retail but also online. In Switzerland, this confidence in e-commerce has still to be developed and strengthened.

Experience in well-developed e-commerce markets such as China and the United Kingdom has shown that the technical and financial infrastructure is a key driver for the success of e-commerce. Robust and reliable delivery mechanisms as well as safe and simple digital payment options have played a major role in these countries. But ecological and cultural differences among countries also are an influencing factor.

### **FMCG E-Commerce in Switzerland**

Compared to other Western European countries, Switzerland has an advanced share of online commerce. The United Kingdom and France rank first and second, each with an online value share of 6%. In 2017, about 2% of all FMCG expenditures in Switzerland were made online (Grüter 2018). This share has steadily increased during the last three years. According to their own assess-

ment, more and more consumers will access the online channel in the future. For example, 72% of Swiss consumers say they will buy groceries online within the next 10 years. Over the next 6 months, about 24% of consumers claim to definitely or probably buy groceries and toiletries online. However, for most consumers the barriers to online shopping are still huge. The following barriers have to be overcome if the penetration of this channel is to be further increased in Switzerland:

- The extra fees commonly accrued in online shopping are mentioned by more than half of all Swiss customers as the biggest obstacle.
- For 46% of Swiss customers, the lack of a “shopping experience” is also a barrier to the use of online shops.
- 35% of the respondents are missing the opportunity to examine (touch and feel) the products.

The two latter aspects of online shopping (lack of a “shopping experience” and inability to touch and feel the product) are factors that are currently still difficult to improve online. They remain the strengths of stationary trading and thus need to be emphasized by brick-and-mortar retailers. In addi-

tion to these three barriers, factors such as price/special offers in the store, concerns regarding product quality, long delivery times, or limited product choice are cited as further barriers to online shopping. When Swiss consumers are questioned about the necessary characteristics of online retailers (Nielsen 2018), almost 95% consider the correct execution of an order and the quality of the products as the most important aspects. For 89% a user-friendly design of the website with easy-to-follow processes of registration, purchasing and payment represents a crucial attribute of an online shop. Other important features of online retailers include value for money, a large selection of products, transparent handling of personal data and easy navigation on the website. Delivery times, the displayed product information and the availability of the products are also important factors.

### **A Competitive and Fragmented Retail Landscape in Switzerland**

The retail landscape has changed drastically during the last few years, which has naturally led to a change in consumer behavior and shopping patterns.

#### **Management Summary**

1. The boundary between online and offline retail is increasingly disappearing, forcing companies to adopt an omni-channel strategy.
2. Bringing brick-and-mortar retailers to data parity with e-commerce will be challenging. However, the increasing prevalence of digital technologies now makes it possible to address the problem of instrumenting the physical world.
3. With these technical advancements, stationary retail can become more personalized and individualized, which is bound to generate more profits.

With an ever increasing number of shopping options, retailers have to offer something unique to consumers in order to gain their attention and differentiate themselves from competitors.

After a decline in shopping frequency from 2009 onwards, it rose again, for the first time, from 136 to 140, in 2017. This corresponds to four additional purchasing acts per year per household as compared to 2016. One of the reasons for this increase is the higher amount of shopping opportunities and possibilities. The retail landscape in Switzerland is becoming more and more competitive and fragmented. In fact, the absolute number of shops in traditional retail grew again in 2017. Furthermore, two major discount stores, Aldi and Lidl, established themselves in the Swiss market. But not only the number of classic supermarkets increased, there are also more and more convenience shops, online shops and so called mono-brand shops in the non-food area in the Swiss market. In fact, while a household visited on average 5.5 different shop types per year in 2007, this number grew to 6.2 in 2017 (see figure 1) (Nielsen 2018). This means that the average Swiss household visited six different retailers during the past year and every second Swiss

### Main Propositions

1. New technologies and e-commerce challenge the status quo of traditional brick-and-mortar FMCG retailers.
2. In the e-commerce retail environment customer insight is so granular as to enable e-commerce shops to know the path to purchase and the price elasticity at the level of the individual consumer.
3. Stationary retailers need to rethink their business model to adapt to these trends.

household added another retailer to its “relevant set” during the last nine years.

As a consequence, spendings per purchasing act are slightly lower (down from 42 CHF to 41 CHF in 2017) as the money is now spread over a bigger number of purchasing acts and shop types. All this results in a very competitive environment, making the battle for the consumer’s loyalty tougher.

### Traditional Retail Is Becoming More Personal

In mature markets such as Switzerland, the reduction of out-of-stock situations is one of the last growth opportunities for retailers and manufacturers. Nielsen data shows that, on a global scale, on average 8% of all products are out of stock at any given time (Currie 2017). In highly developed markets such as Switzerland, this value is around 2%, but the personnel costs to clear and eliminate such out-of-stock situations on the shelf are high. By providing better forecasts, big data algorithms and “machine learning” could remedy this shortcoming. Technological advances such as “smart shelves” and “item tagging” are currently still expensive, but could become more widespread in the future.

Because the distinction between online and offline retail increasingly disappears, building a cross-channel business model becomes crucial. Thanks to digitalization, consumers have access to an almost infinite amount of good shopping destinations. Due to this increase in options, shoppers have become more demanding and discerning. Personalized shopping experiences and services are therefore becoming a major differentiator. For brick-and-mortar retailers, this means that in the future the point of sale has to be regarded less as a physical place for selling the products, but rather as an opportunity for bringing the customer closer to the products and, above all, the brand world.

If the focus of a physical shop is no longer exclusively on selling, space can be created to improve the customer experience and to meet the customers’ individual needs. The optimal combination of the online and offline “path to purchase” is a first basic requirement for perfect personalization. If this succeeds, it might in future be developed into

**Fig. 1: Number of Store Types Visited per Household and Year**



Source: Nielsen Shopper Trends, 2018.

some kind of personalized, digital level in the physical shop, in which every consumer gets their individual promotions or even individual packaging and pack sizes that are tailored to their needs.

Personalization is more natural for digital businesses. The instruments of the virtual world provide a huge amount of information about consumers: click into an e-commerce store and the site already knows your buying history and browsing habits, the ads you have viewed, your demographic information and your preferences. As a result, the digital retailer has a good understanding of individual price elasticities and paths to purchase, which by implication means he can optimize offers to suit individual consumers and maximize profit. To do so, digital businesses do not need to use human intuition. Big data technologies, real-time platforms and machine learning algorithms let retailers crunch data quickly and cost-effectively in a way that has not been possible before. Traditional business intelligence tools were suitable for describing what happened and helping analysts understand why. Modern approaches automate this kind of analysis, and the best analytic models can predict shopper behavior with an amazing level of accuracy. Trained machine learning algorithms can both diagnose what happened and prescribe the best responsive action. They enable the use of customer-centric tactics at scale and in real time (Currie 2017).

However, when consumers walk into a traditional brick-and-mortar store, it does not know anything about them and it presents the same appearance to all of them. It is not an evolving, responding platform in the way an e-commerce store is. Even if some of the customers are enrolled in a retailer's loyalty program, no one will find out until they register with a purchase – or never if the store is left

## Lessons Learned

1. Physical stores have to be regarded less as places where products are sold but rather as places where retailers can differentiate themselves and create a unique customer experience.
2. By reducing their inventories in physical stores but offering the entire assortment online, retailers can reduce costs and focus on personalization and the in-store experience.
3. In the near future, a shopper's journey through a physical store could be shadowed by their digital twin's path through a virtual store in order to provide to each individual a custom-made, personalized offer.

**Sales can be made anywhere, but some things can only be provided in a store – such as personal assistance or the opportunity of touching and seeing a product before buying it.**

without buying anything. If a consumer has downloaded and activated a retailer's shopping app and if the shoppers are monitored by beacons or other in-store technology, retailers may be able to follow the consumer at an earlier point of their route through the store. However, this is intrusive and requires consumers' participation in a way that online tracking does not.

One way to come closer to the e-commerce retailer's panoptic view of the consumer is by gathering information about shoppers from their devices: for example, many consumers allow apps on their smartphones to gather information about their location and to share it with

third parties. Retailers can also exploit the layout of their own physical store by using technologies such as beacons to capture information about the shoppers' whereabouts, their path through the store, their dwelling times, return visits to a shelf and so on. Although mobile phones are currently the best digital avatars for consumers in the physical world, there are other sources of information as well. Buildings and public spaces may be equipped with suitable instruments, and initiatives are already underway that will connect consumers' exposure to ads on office lobby and elevator screens to store visits during the working day. Leveraging the location data that consumers share with a third-party phone app may be intrusive, but it does not create a strong bond between the consumer and the retailer or manufacturer using the data. This sort of "light-touch" relationship has many advantages, but some suppliers naturally want a more direct relationship with their consumers. The most common way to do this is through a specialized app on the consumer's phone. However, app fatigue is a well-known phenomenon, plus there are other potential pitfalls. The app owner must persuade the consumer to participate with a substantial amount of personal information, which the con-

sumer knows will be used to target them directly. Also, because the relationship with the supplier is direct and explicit, the consumer has greater expectations: the app must provide a convenient, useful service that is a fair exchange for the data the consumer shares.

When looking at the current status of Switzerland with regard to the use of shopping technologies at the physical point of sale, Nielsen comes to the conclusion that Switzerland, together with Sweden, already has a high standard of technology in stationary trade. Switzerland is a digital leader, with some of the highest rates of self-reported digital coupon and retailer-specific app use worldwide (Grüter 2018). 28% of Swiss respondents say they use digital coupons (+12 pp.) and 17% say they have downloaded a retailer or loyalty program app (+8 pp.). Swiss retailers also have incorporated several technologies to speed up the checkout process that have been well received by shoppers. 36% of Swiss respondents say they have already used a self-service checkout (+5 pp.) and 28% would prefer using handheld barcode scanners as they shop rather than standing in checkout lines to purchase products.

The main reason why these technologies and tools have gained so much traction is their general availability. In Switzerland, two major retailers dominate the grocery market – with a share of 80% – thus reaching nearly every Swiss shopper. Both of these retailers have incorporated digital technologies in their stores – for example, by introducing mobile apps that include mobile coupons and payments.

## Implications


Even though 85% of all transactions in FMCG are still made offline, e-commerce business will grow significantly

in the next few years. Because of their business model, online stores are per definition better able to monitor consumer behavior. In the future, these e-commerce techniques that enable stores to collect very precise information about the consumers need to be transferred to the physical world.

Sales can be made anywhere, but some things can only be provided in a store – such as personal assistance or the opportunity of touching and seeing a product before buying it. The trend of online shopping will lead to a reduction in store inventories and implies that some retailers will offer the biggest part of their inventory for online purchasing only (Joliet et al. 2016). By having less stock, retailers will have more space to improve the customer experience, for example by adding product demonstrations or genius bars. Reducing the size of their stores can also help traditional retailers compete with pure online players and discounters because offering only a limited inventory in the physical store will allow them to compete on price and differentiate themselves by offering a full inventory of branded products online.

Technologies such as smartphones, beacons and smart cities are bringing the understanding of shoppers' behavior in the physical world onto the same level as the understanding of shoppers' behavior online. Soon, a shopper's journey through a physical store could be shadowed by their digital twin's path through a virtual store (Currie 2017). Digital twins are avatars that roam social media and online stores, tracked by the smartphones carried by their human counterparts in the real world. Currently these avatars embody limited information about an individual, and this data is fragmented across multiple systems. At present, there is no single entity that aggregates all the

information. However, with the growing popularity and sophistication of digital assistants in phones, cars and homes, personal avatars will become very important to retail in the future.

Because of these technical advancements and the growing importance of e-commerce, stationary retail has to adapt and become more personalized and individualized. Indeed, brick-and-mortar stores have already come a long way on the road to personalization. This step is crucial for stationary retailers because it is bound to deliver more profits. Studies of e-commerce show that sites that personalize a user's online experience generate higher-value orders, greater margins and fewer returns. In the never-ending race that is modern retail, companies can no longer compete primarily on product or price. Brick-and-mortar stores should continue to invest heavily in creating individualized digital interactions. These personal interactions will lead to higher satisfaction levels and engagement, and in turn help increase revenue, profit and repeat business. 

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