

# THE INFLUENCE OF INNOVATIONS AND TECHNOLOGY ON THE FUTURE OF RETAIL

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**Abstract:** *This paper contains some aspects related to the role of retail for the trade sector and to the importance of innovations in the modernisation process of retail. With the convergence of physical retail formats, digital services, and eCommerce channels, retailers are currently confronted with the need to correctly deliver a fully integrated shopper experience from start to finish.*

**Key words:** *retail, innovation, technology, shopping experience*

## 1. Introduction

According to the Oxford Dictionaries, retail trade means the sale of goods to the public in relatively small quantities for use or consumption rather than for resale. [10] Worldwide, retail has an important role because together with wholesale, they represent an intermediate link in the flow of producer-consumer relations [1]. In this context, retailers must be able to cope with high and increasingly complex customer demands, so they can be able to maintain a high level on this market. The only way for any company (no matter its size or activity) to successfully meet the market challenges and overcome the competition is to innovate. Given the fact that trade is an area where companies must constantly understand customers' needs, retailers must anticipate behavioural changes requiring market research and innovation for creating products, processes and services around customers.

The evolution of the global economy shows that, across the globe, trade and

especially retail has progressively become a very dynamic economic sector, featuring a series of changes at all levels: sale methods, distribution forms, geographical distribution of business management.

Despite difficult economic conditions, the global retail industry continued to grow, building on the rebound in growth that started in 2010 [5].

The future changes in the retail sector cannot be ignored. Stores will be fewer and smaller. Retailers will have to manage capacity across the supply chain more carefully. Companies will make capital expenditure based on rigorous ROI measures and quantitative testing, rather than on gut feel. Product will be moved less, packaging will be rationalized, and new product introductions will be heavily scrutinized. The value chain collaboration will become critical for ensuring the long-term profitability of suppliers and retailers.[8] Retail companies will also be forced to shorten product development cycles and create stronger linkages between

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their product development and supply chain operations.

Modern economy has led to new demands for the retail sector, causing it to develop and provide services that improve the satisfaction system of consumer needs and increase their satisfaction level. To achieve these objectives, trade uses innovations - news, changes, improvements or rationalization of technical solutions. But innovation does not have a narrow sense; it can be also used in social systems, art, government, business, etc.

## 2. The necessity of innovation in the retail sector

A retail business aims to conceive an idea and deliver consistency, profitability and integrity from concept to execution. A retail business that sells products or services that appeal to customers' needs has the ability to stand up against competition. If the characteristics appeal to consumers, in their mind, the business represents value.

To connect to a core customer group, one of the characteristics a retail company must have is a clear vision. What the company is offering, who their target market is and the value of the product or service to the customer must be clear. Price, convenience and store experience are functional characteristics that make up a strong retail brand. [11]

But in order to achieve these features like value, clear vision and strong image, any modern retail business needs innovation.

The innovation sources could be found in the opportunities existing in the market structure and in the industry, legislative changes, the perception of things, etc.

The role of innovation in the retail sector is to:

- Maintain competitive advantage;
- Develop or preserve market position;
- Facilitate traders' work;
- Facilitate the performance of various operations;

- Reduce production costs;
- Offer businesses the opportunity to advance;
- Ensure the survival of the market;
- Ensure the possibility of enlarging the covered market area;
- Make frequent changes to clients' needs and expectations.

Retail has, in the commercial circuit of products, the important role of an intermediate link inside the flow of producer-consumer relations. The appearance and development of this trade entailed the introduction of some new techniques and technologies through which more customers are attracted, a variety of products are offered, a more efficient distribution is achieved.

## 3. The beginning of innovation in retail

The first innovation adopted by retailers (hypermarkets and supermarkets) is the **self-service**.

This is an attractive way of selling for consumers because it offers them the possibility of free movement through the store and also the product selection without any constraints from the seller. The customer has the opportunity to investigate and study the products, to gather information about the features and uses, to compare prices, and eventually to change the buying decision for the selected items.

In order to simplify and streamline customer service, another innovation adopted by retailers was the bar code. This is defined as the representation of data intended to be read and decoded optically using scanners that measure the reflected light and interprets the code into numbers and letters and sends them to a computer. Barcodes allow rapid identification of a product and its characteristics: nature, origin, type, weight, price, etc.

But lately, in the retail sector, the barcodes are gradually replaced by another innovation: the RFID technology - Radio Frequency Identification. This technology involves the

use of some devices called RFID tags – for storing and retrieving data remotely via radio waves of RFID transponders and a RFID reader device. This system emerged in the '90s as a management system for merchandise, continuing to expand gradually to identify animals and even track and monitor individuals.

As RFID technology becomes more prevalent, its use will influence everything, from the supply chain management, to retail checkout/payment. In the future, products will be tracked and recorded throughout the entire supply chain, from commodity source through manufacturing and quality assurance and into shoppers' homes.

Another innovation adopted by retailers is **merchandising**. This is a set of methods and techniques for presenting products in an active form, at the point of sale, in order to optimize sales. Merchandising is based on several activities. One of them is the continuous availability of products, both for sale and in stock. Other activities are: products presentation on shelves, grouping the products on categories based on logic.

The innovations introduced until now in retail led to its intensive development, both as sales methods (supermarkets, hypermarkets, specialized stores etc.) and the techniques and technologies used to attract and retain customers.

Regarding e-commerce, it is experiencing a growing trend both in Romania and worldwide with daily increasing sales and services online.

In conclusion, we can say that innovations in retail led to the expansion of this sector and created the actual dynamics.

### 3. Innovative concepts for retail success

**Social media and mobile technology** are having a significant impact on retail businesses as consumers increasingly utilize these channels for shopping, coupons, online promotions, price checks, product comparisons and information.

The collision of the virtual and physical

worlds is fundamentally changing consumers' purchasing behaviours. Consumers are seeking an integrated shopping experience across all channels, and expect retailers to deliver this experience. Failure to deliver puts retailers at risk of becoming irrelevant.

The “wall-less” metaphor is one that has conceptual appeal for framing the 2020 retail marketplace. [7] More and more retail volume is expected to come from non-store-based retail and stores will come under increased productivity and competitive pressures. The power of technology as a driver of change is not just limited to the shopper and retail environment. Increasingly, the —world without walls will also require a value chain without walls, as shoppers gain more transparency into all aspects of the retail supply chain.

Structured and unstructured data and analytics are used by retailers for a better understanding of consumers, as well as for branding, product management, and making better pricing decisions.

An example is Wal-Mart which is testing “Scan and Go” checkout systems that allow shoppers to skip checkout lines by using their mobile phones to scan items and pay at self-serve kiosks.

Retailers progressively need to process large amounts of data pertaining to customers and products in real time to provide personalized solutions. The spread of **cloud computing** has helped retailers to not only have large computing resources at their disposal; it has also allowed them to match their demand with their sales season. Moreover, retailers are looking to move all their platform-based solutions to the cloud. Further, cloud computing helps retailers manage multiple channels and locations, integrate their websites with business, support their Point-of-Sale (PoS) systems, provide a unified real-time view of business, perform automated merchandising and marketing, and gain a

360-degree view of each customer.

**Mobile commerce** is an important channel for many retailers; however, its application can and should be extended from merely an online sales alternative to a tool that drives meaningful connections between the brand and the consumer.

Retailers launch apps that enable shoppers to browse merchandise, scan bar codes or QR codes to learn more about products and inventory, and with the help of near field communication (NFC), pay for purchases. Starbucks basically pioneered the process through its Starbucks Card Mobile – a free app that lets users input pre-paid gift card account numbers that act as a virtual wallet and allow them to be used on the mobile device by scanning an electronic barcode. The app also lets users set up automatic card refills and more.[4]

Mobile currently contributes 5.1 percent of total retail sales and will increase exponentially to reach 17–21 percent of total sales by 2016. Moreover, customers who access a retailer's app while shopping have a 21 percent higher conversion rate. [6]

**Social commerce** is another critical part of the customer experience and digitally savvy retailers will devote taskforces to supporting their social media strategy. Proper management of Facebook, Twitter and other media is vital. To keep customers engaged, retailers should also consider including a social element in their mobile apps.[9]

Social media, a powerful enabler for consumer engagement, provides exposure to online coupons, group deals, and promotion information. By 2020, the next generation of social media will force merchandising and marketing into a —group activity— both online and in-store (e.g. —likes— associated with products, at the shelf level in its stores). In the future, shelf tags are expected with ratings that change as shoppers review and purchase, as

well as usage suggestions derived from social media groups providing product information at the store.

#### **4. Retailers' decisions shaped by consumers' behaviour**

Customers are saving more, spending less, and trading down. Their behaviour poses challenges and opportunities in three areas: growth, operations, and risk and regulatory compliance.

Growth is constrained and business models are shifting dramatically. Consumers now favour omnichannel retailing—buying products through Web sites, social media, mobile devices, and e-mail campaigns as well as brick-and-mortar stores—which threatens the relevance of many retailers at the very time they are trying to gain more wallet share.

Retailers are seeking ways to reduce expenses and improve margins despite the need for higher IT investment to bridge the gap between their physical and virtual presences.

Retailers also recognize the need for better staff development and retention to drive more customer loyalty and satisfaction. [3]

Retailers recognize that many of their customers are making buying decisions that include a concern for the environment. For example, they may choose a product that has eliminated wasteful packaging over another product that is packaged with excess materials. Or they may choose to shop at a store where the manager reports that new systems were put in place to reduce energy consumption. This behaviour generated the concept of **green retail**, an approach toward managing a retail business that takes advantage of environmentally friendly processes.[11] Green retail managers are choosing to reduce energy costs by employing transportation practices that are more efficient. And they are looking at long term

savings from building new facilities using sustainable building practices.

Traditional stores will certainly exist ten years from now, but they will not look the same as today. Many traditional retailers will disappear as competition remains fierce and input costs continue to rise. Others will fail because of an inability to adapt or to change their business model to a multichannel reality in which boundaries between the online and physical worlds disappear.[1]

Retailers will have to redefine messaging and store formats to more granular geographic levels and will need to redefine

their placement and use. Based on the need to rapidly open and adjust stores to respond to the changing needs of this population, growth in this space will be dominated by smaller units. These smaller stores will also have a high-degree of digital integration to expand online retailing and related applications. This hybrid of the physical and online worlds will provide a means of rapid change to match the evolution of the targeted segments or new ones that might emerge.

The following table shows the differences between the most powerful retailers worldwide in 2011 and 2012.

*Top 10 retailers worldwide*

Table 1

Rank	2011	2012
1.	Wal-Mart	Wal-Mart
2.	Carrefour	Kroger
3.	Tesco	Target
4.	Metro	Costco
5.	Kroger	The Home Depot
6.	Costco	Walgreen
7.	Schwartz	CVS Caremark
8.	Aldi	Lowe's
9.	Walgreen	Safeway
10.	The Home Depot	McDonald's

The world's 10 largest retailers remained unchanged from 2010 to 2011. In 2012 Wal-Mart continues to be on the first place, followed by Kroger and Target. Many of the retailers present in the Top 10 of 2011 disappeared in the Top 10 of 2012.

Globalization will push retail into a variety of new and different types of markets. Benchmarks of global formats will spread more rapidly, and retailers will adapt global best practices swiftly to meet the needs of their markets. Even local retailers will be required to understand the global format portfolio in order to make sure they have a strong format strategy to compete in an increasingly polarized

world.

## 5. Conclusions

Rapidly changing technology provides opportunities for retailers to explore new ways of doing business and to reach more customers. Retailers make efforts to deliver a consistent service experience across all touch points to remain customer-relevant and competitive in the future. By embracing and successfully leveraging technology innovation, retailers can look forward to a brighter future.

To enable more personal connections, retail brands will need to be well integrated across physical, digital, and media touch

points in order to realize the full range of opportunity.

Retailers must make shopping across all channels a more stimulating and satisfying experience, rather than simply a way to find the lowest price for a particular product. New competitors are disrupting the market and capturing valuable market share through innovative business models.

With the convergence of physical retail formats, digital services, and eCommerce channels, retailers are currently confronted with the need to correctly deliver a fully integrated shopper experience from start to finish. By 2020, this should be a reality, with shoppers experiencing retailers as a single brand consistently across all points of contact, both virtual and real world.

By 2020, retailers will be confronted with a "digital divide", presenting two very different multichannel shoppers with different shopping expectations that will be difficult to address and serve using a single strategy. One of the only common patterns in shopper expectations will likely be that the online channel will be mandatory for most retailers. Gen X and Gen Y shoppers are becoming more oriented towards online participation in everyday activities, including retail ones.

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