CATALUNYA SMART RETAIL 2030

Think Tank RETAILcat

White Paper on the Role of Retail in Cities

30th of January de 2019

CATALUNYA SMART RETAIL 2030

EXECUTIVE SUMMARY

The aim of this white paper is to help the Catalan Retail Association RETAILcat identifying key drivers and anticipate future trends that will shape consumer behaviour and the impact it will have on the Catalan Retail Sector by 2030. The deliverable of this paper is a proposed roadmap of working areas/themes to help both Catalan public administration & Catalan retailers define strategic planning and see the potential costs and pitfalls of not meeting these trends in the future.

Successfully identifying, analysing and acting on trends is essential for the success in any markets. The world is changing fast, and it is becoming increasingly difficult to keep up with technology and social-economic changes. As such, it is difficult for an industry to understand why it is evolving in the way it is today, and much less to predict how it will evolve into the future. The Catalan retail industry is not excluded from this dynamic operating environment, and with increasing competition from multinational companies, Catalan retailers may face difficult times. This white paper will help RETAILCAT to work closely with the Catalan Public Administration to build a long-term strategy that is proactive, rather than reactive, ensuring a plan to help remain relevant Catalan retailers and move forward.

For this, a think-tank group was created by REAILCAT to identify, analyse and harness trends with the objective to foresee the requirements of the Catalan retail environment for year 2030. The think tank group was composed by thought leaders from the retail industry, directors from the Catalan public administration and Catalan retail associations and academic faculty from EADA Business School. Five workshops took place during the second trimmest of 2018. The first four workshops covered themes such as geopolitics, the future of consumption, smart cities and new business models. The objectives of these workshops were to expose group participants to new trends and stimulate debate regarding the future of retail. The last workshop aimed to synthesize all previous outcomes to create a theme map where RETAILCAT can start working on future projects. All workshops were organised and run under the academic supervision of EADA Business School.

During the workshops five main drivers were identified that will shape the retail environment by 2030. These are:

Economic Shift, Population Change, Environmental Pressure, Technological disruption, Change in Consumer Values.

Interestingly, these drivers can by encapsulated in a smart city environment. Smart Cities can be regarded as the effective integration of physical, digital and human systems in a built environment to deliver sustainable economic development, and high quality of life for its citizen. The idea of the Smart City is to give urban policymakers and businesses real-time interconnected information on a whole variety of indicators in order to better understand and control its operation, to improve decision-making and optimise service delivery from the use of limited resources.

Deriving from the concept of smart cities, and the potential impact it will have for the retail industry, **RETAILCAT proposes a theme to assess the integration and role of the retail Industry in future smart cities. The project called SMART RETAIL, goes beyond the application of modern technology and highlights potential roles and challenges the retail industry could face in an environment of wireless infrastructures, collaborative economy, participative governance, smart urban mobility, sustainable environment, and connective living.**

This new concept of smart retailing can be investigated according to Patano and Timmermans (2014) in **two broad areas: organizational level and selling activity.** Organizational level refers to the internal aspects retailers need to consider for operating in a smart environment. For this three main topics could be of interest for further analysis 1) the need for developing constant ad-hoc capabilities 2) Enhancing knowledge management processes (from and to clients) 3) the creation of smart partnerships between retailers, suppliers, consumers and public administration. Selling activity refers to the offering aspects retailers need to consider when operating in a smart environment. Likewise 3 potential topics have been contemplate for further analyses 1) constant changes in consumption 2) changes in service access and 3) changes in the role salespersons jobs.

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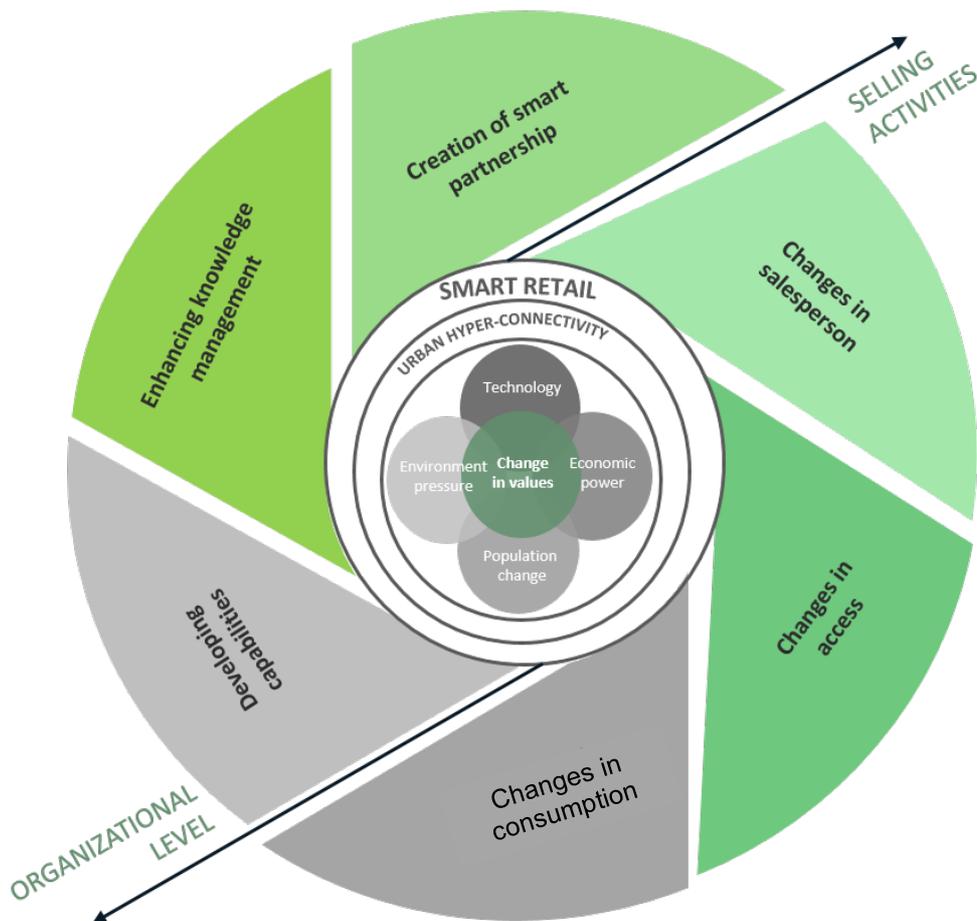
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Adapted from Pantano, E. and Timmermans, H., 2014. What is smart for retailing?
Procedia Environmental Sciences, *22*, pp.101-107

DRIVERS THAT ARE SHAPING THE FUTURE

Due to global and local socio-economic changes consumer confidence & expenditure is experiencing slow growth. In addition, technological disruption has created new shopping behaviours, allowing consumers to deal directly with other consumers, compare prices and get the best deal at the touch of a button.

Today, consumers are seeking to reassess their values and priorities and focus on obtaining the most out of life, whether this be prioritising experience over possessions, sharing over owning or time over money. In a dynamic operating environment such as this, with increasing competition from multinational companies Catalan retailers could face difficult times. Identifying, analysing and harnessing trends and meeting the requirements of consumers is imperative to gain future sustainable growth.

Five drivers have been identified that will shape consumer in the next coming decades. These drivers explain the on-going changes we will witness in retail business models, consumer behaviour, shopping experience, & ethical living. These are:

- **Shifting Economic Power**
  Emerging economies have seen strong growth, at a time when development in advanced economies has faced headwinds. By 2030 global economy will double in size and reach 256.1 trillion in terms of GDP with a huge shift to emerging and developing markets accounting for 76% of total growth. By 2030, the Chinese economy will be 1.8 times larger than that of the USA.
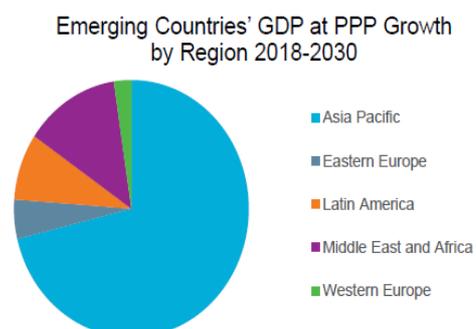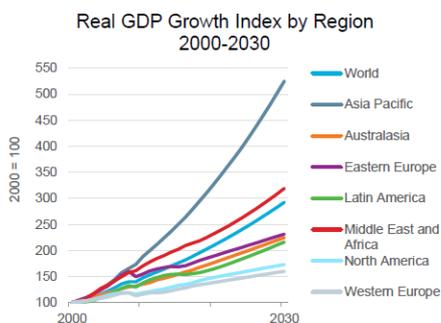
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There are a number of growing centres of economic power, such as BRICs and MINTs, that are transforming the global economy and challenging the status of developed economies. As a result, developed economies show slow labour productivity growth. If sustained, it could delay the progress in living standards, threaten the sustainability of private and public finances, and increase vulnerability to future shocks.

- **Population Change**

By 2030 world population will account for 8.5 bil with a median age of 32,8 years and a life expectancy of 74,4 years. The 3 predominant population changes, are:

  a. Urbanisation,
  b. Migration
  c. Ageing population
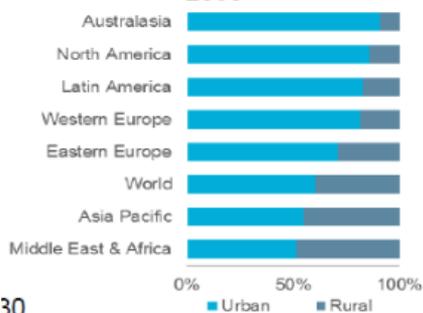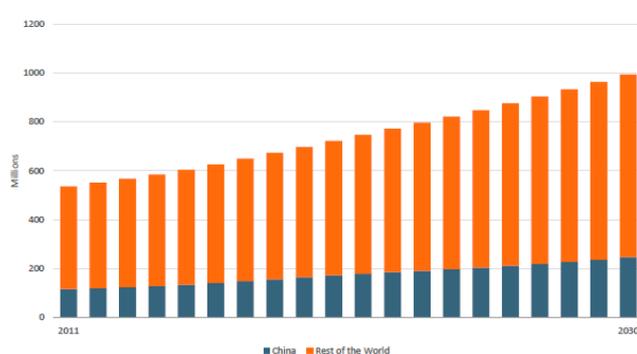
Combining these 3 changes will reshape consumer lifestyles and purchasing decisions. In 2030, 61.0% of the world's population will live in urban areas, 995 million will be aged 65 and over, and net migration will account for more than half of population growth to 2030 in Western Europe, Australasia and North America.

- **Environmental Shifts and Natural Resources Pressure**

As population grows, incomes and quality of life will increase, so the demand for resources, such as energy, soil, food and water, threatens resource security. Adding to this, increasing and rapid urbanisation, and industrialisation will led to environmental problems, such as air pollution and waste management, in many cities across the world. As a result, the effects of climate change will become more visible, from changing weather patterns, ice caps melting and water stress, to deforestation, reduced crop yield, and biodiversity loss. As the world consumes more resources than it can produce, there is an impetus to push away from a linear economy based on a make/use/dispose model, towards a circular economy based on a reduce/re-use/recycle model that focuses on minimising waste and recycling or re-using all end products. There are significant benefits to this approach beyond saving the planet. Resource volatility will lead to an unpredictable raw materials flow, instable costs and changes in regulation. Reducing dependence on raw materials will help control manufacturing costs and operations.
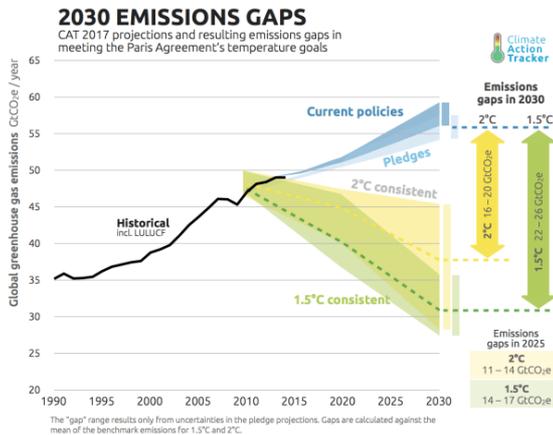
Overall, competition for resources and increasing awareness of environmental challenges will have a transformative effect on consumer behaviour, at a rapid pace.

- **Technology**

As mobile devices and internet household penetration continues to grow, technology will play a pivotal role in consumer decision-making. The number of internet users has more than doubled over the last decade, giving way to a truly mass participation of technology. In 2018, almost half of the global population uses the internet, and three quarters will have access by 2030. Today two thirds of the world's households own a smartphone.

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Consumer Access to the Internet Globally 2017-2030
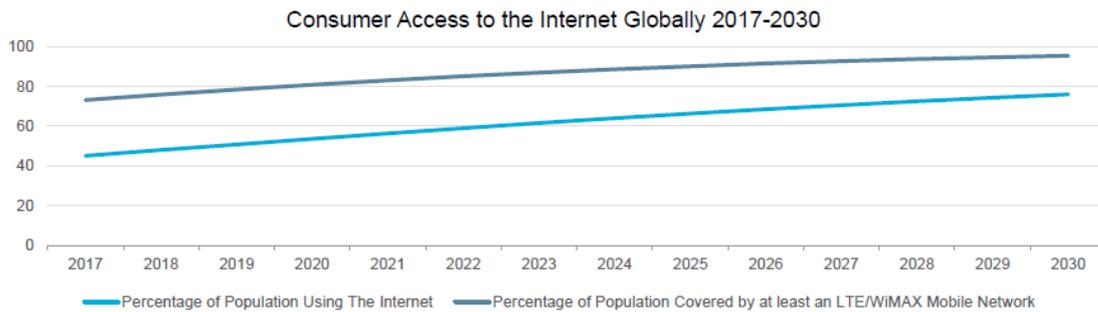
Source: Euromonitor International from national statistics/Eurostat/OECD/UN/IMF

The smartphone and the on-the-go access will provide truly democratised internet access. Mobile internet will enable consumers of all types to plug in and connect regardless of their status or location. This connectivity is the backbone for many other technological advances. It encompasses:

- o Augmented Reality, Virtual Reality & Mix Reality

- o Autonomous cars

- o Biometrics

- o Blockchain

- o Cloud technology

- o Internet of things

- o Mobiles and 5G networks

- o Robotics

- o 3D printing

Technology will play a critical role in the evolution of society and will created massive upheavals in consumer expectations. For example, artificial intelligence will improve customer service and personalising communications with consumers. Augmented and Virtual Reality will improve the customer journey and the Internet of Things will become the Internet of Everything. Blockchain will reinforce transparency and 3D print will disrupt production processes. Finally, it will lower the barriers of entry for fast-moving companies, and inspired new business models.

Hyper-connectivity will become the new normal and it will redefine what it means to live, work, shop and play over the next decade and beyond. It will have a pivotal role for businesses to meet the needs of tomorrow's consumer.

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- **Changing Values**

Due to the four previous drivers, there has been a huge transformation in what is important to consumers. With two thirds of the world's households owning a smartphone, hyper-connectivity is giving individuals access to more information than ever before, educating consumers on evolving social, cultural and political landscapes. This is developing greater self-awareness and is helping consumers to make more informed decisions. Conscious consumption is being replaced by conspicuous consumption and is at the heart of changing values and priorities. In the coming year's ownership as a status symbol will be replaced by access. Developed economies will add US$3,839 billion to their spending on services between 2018 and 2030, in comparison the figure for durable goods will be US$503 million. Consumers tend no longer to have deep relationships with the things they own, but instead find emotional attachment in experiences and achievements.

Changing consumer values: leading life priorities

Financial security key priority for baby boomers, but for gen Z, it's all about their passions in 2017
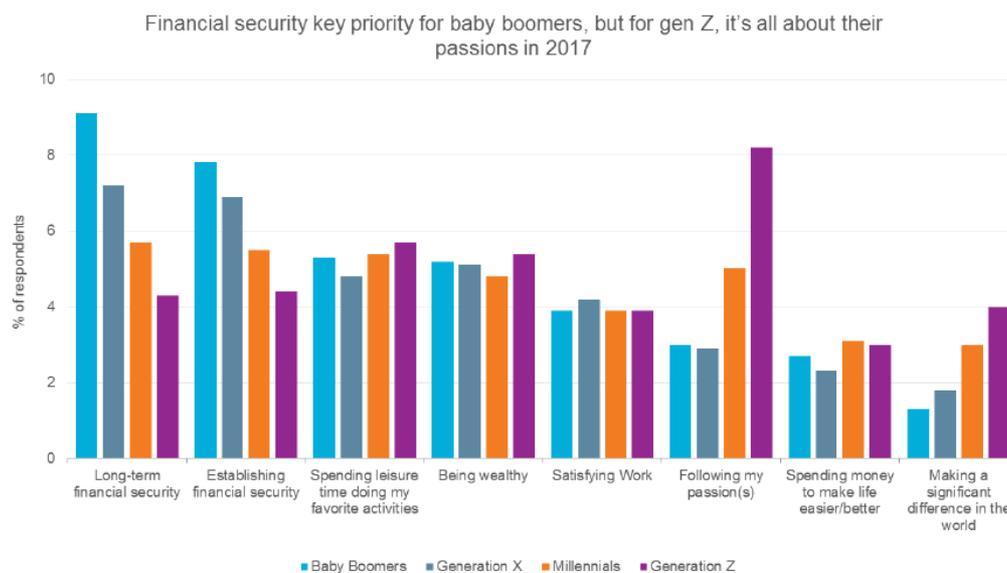
Source: Global Consumer Trends Survey 2017

MEGA TREND 2030: URBAN HYPERCOENCTIVITY

With the gradual shift of population from rural to urban areas, an increased concentration of wealth and resources will be observed in cities. While this will permit cities to become important hubs for social development, commerce and science, it will also give rise to social, economic and standard of living challenges.

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The most important social challenges will be **1) Access to basic resources and services i.e. power, water, sewerage; 2) Healthcare and education coverage; 3) Unemployment and social security; 4) Access to housing; 5) Interaction with city government.**

The most important economic challenges will be **1) Job generation; 2) Investment in the city's upkeep infrastructure; 3) Sustainable use of natural resources i.e. energy, water, raw materials; 4) Equally distributive wealth generation; 5) Budget and tax policies**

The most important standard of living challenges will be **1) Mobility and transportation; 2) Pollution of air, water and soil; 3) Income inequality and poverty; 4) Crime and insecurity; 5) Leisure and entertainment activities.**

The solution to these urban challenges lies on the continuing acceleration of information and communications technology (ITC) that will drive the rise to connectivity and technological accessibility in large metropolitan areas. The rising on ICT infrastructure will allow increased levels of connectivity to digital devices and services. This hyper-connective network system will change the way residences live, work, shop and play through supplying them with the benefits of knowledge, simplicity and convenience.

A summary of critical ICT features and how they can affect a local urban society are listed below:

    i.   Wireless infrastructure and service-oriented information systems

    ii.   Network technologies able to provide real-time information and advanced analytics

    iii.   Urban mobility, to enhance availability and access for modern and sustainable transport systems

    iv.   Reduced pollutions, for better environment and ambient conditions

    v.   Enhanced living, including all aspects of human life such as culture and education, safety, health, etc.

    vi.   Citizen integration, within the local community, for quality of social interactions and openness

    vii.   Innovation, entrepreneurship and productivity of local economy for competitiveness within international markets

    viii.   Governance, with political participation for citizens for more transparent and efficient local administration

Therefore, the applications of these ICT features can develop wireless connective cities, of smart homes, smart public services and transportation, smart medical treatment, smart urban and social management, sustainable cities, etc.

As a growing number of cities embrace ICT to seek intelligent/smart solutions for this new urban reality, the concept of "Smart City" has emerged within the digital economy.

DIGITAL ECONOMY

ITC | Connectivity | Internet of things | Smart cities | Knowledge management | Digital services | E-commerce
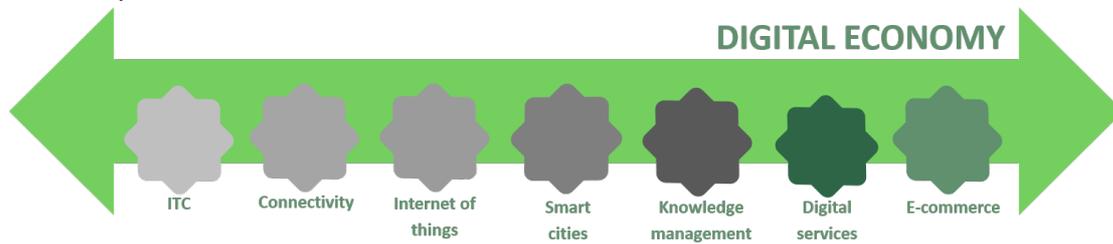
Although there is no standardised definition for a Smart City, there are some elements that stand out in the varied definitions of Smart City. These are technology, urban aspects such as social, economic, infrastructure and government services, sustainability and quality of life.

These common elements imply that while the concept of Smart Cities includes the use of ICT for solving a city's challenges, technology is not an end per se, but a means to achieve improvements of urban aspects, sustainability and quality of life. Without doubt, advanced technologies is a fundamental part towards the creation of smart cities. However, the idea of smartness goes beyond the concept of application of new technologies, with an aim for continuous innovation process for a better urban society.

Hence, Smart Cities can be regarded as the effective integration of physical, digital and human systems in a built environment to deliver sustainable economic development, and high quality of life for its citizen. The idea of the Smart City is to give urban policymakers and businesses real-time interconnected information on a whole variety of indicators in order to better understand and control its operation, to improve decision-making and optimise service delivery from the use of limited resources.

Within this context, retail can play a fundamental roll in a Smart City model in the following ways:

- **Facilitate a Co-creation Knowledge Economy**

  With the adoption of big data, social media and digital platforms, retailers will be able to co-create a system of consumption and production based on knowledge capital

- **Smart Manufacturing**

  With the use of artificial intelligence, internet of things, big data, robotics, 3D printing retailers can fully integrate collaborative manufacturing systems that respond in real time to meet changing demands and conditions in the supply chain

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- **Smart logistics**

With the use of Internet of things, big data, automotive vehicles and drones retailers can simplify and rationalise retail processes such as point-of-sale management and just-in-time delivery.

- **Smart Offerings**

With the use of artificial intelligence, internet of things, big data and mobile technology retailers will be able to perform real time analysis of data collected from consumers and allow manufacturers, retailers and other ecosystem partners to understand consumers better. This will help retailers offer customised on demand products and services.

- **Highly Skilled workforce**

For all the above, workforce with specialised know-how, training and experience to carry out complex tasks will be required in the future. The retail industry can continue to have a major role in creation of new jobs.

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In this scenario, smart retailing emerges as an integrated part of a broader concept of smart cities. The idea of smart retailing reflects a contemporary way of defining the industry, where retailers, firms and public administration use technology to reinvent their role in the new digital economy, reinforce the quality of living by improving consumers shopping experiences. Consequently, smart retailing requires a new vision of retailing with a new approach to retail management, which considers technologies and smart cities as enablers of innovation.

The Catalan retail industry is not excluded from this dynamic operating environment. A recent study elaborated by ACCIÓ (2016) gives for the first time an in-depth look at the economic activity generated by smart cities in Catalonia. The sector in Catalonia is made up of 270 companies, with a workforce of 116,163 people (2015). Their collective turnover, solely linked to the smart city sector in 2015, came to 6,968.33 M€. This figure represents 3% of the Catalan GDP, proof of how important this sector is for Catalonia's business environment. As the adoption of smart city models in Catalonia accelerates, this will inevitably influence consumer behaviour.

To avoid future uncertainty the RETAILCAT think tank considers two main areas where Catalan retailers need to consider changes. These are organizational level and selling activities.

Company Level

Retailers need to understand the environmental changes and behave consequently, in order to respond to technologies and smart city ecosystem. From an organizational level, retailers will need to:

- **Develop new capabilities and competencies** to understand the new competitive scenario enabling innovation and relate action strategies by integrating resources and reconfiguring internal and external organizational skills.

- **Improve knowledge management**, because data collection and analysis will be a critical factor for retailer success in a smart city context. Search for valuable information based on clients' interconnected real time transaction can identify changes in consumers' behaviour. This is a critical issue for retailers since consumers' needs and preferences are very changeable over time. Selection and visualization of customized information based on big data will provide retailers enriched information about products and transfer product knowledge into the service in order to reinforce an emotional engagement between shopper and retailer.

- Enhancing the way to create, acquire, manage and transfer knowledge from consumers to firms and *vice versa*, will require new partnership between retailers and different stakeholders. Therefore, new collaborative and interactive scenarios need to emerge, where retailers, consumers, firms and public administration participate in the co-creation of final services, which respond to high-customized information within a new smart shopping space. Hence, **"intelligent collaboration"** need to formulate with the common goal of achieving satisfying services for improvements in consumers' quality of life.

Store Level

Smart cities and technologies will also change the retail selling activities in terms of consumers' access to product/service, salespeople-consumer relationship, and product/service consumption.

- Smart technologies will allow consumers to have direct access of product and services from home, mobile devices, storefront windows, etc. This will overcome the traditional limitations of physical points of sale. In addition, the direct access to product/service will not be related to a physical salesperson anymore, due to the use of technology as a supporting tool substituting the physical assistant. Hence, consumers can interact with the product and achieve the service only through technology that interactively responds to consumers' changeable requests.

1. In traditional retail settings, consumers handled purchases and manage physically collection of products/services. In existing environments, the purchase and consumption can be done both physical and online. In future, technologies will personalise production, offer price dynamics and provide delivery flexibility. The benefits of such smart environments will change **product/service consumption** by larger product customization offering, and reduce transaction costs and change through adjusted services. It will change the overall shopping behaviour.

2. If product/service access and consumption are less relevant to physical point of sales and salesperson anymore, due to use of technology, consumers can interact with the service through technology that interactively responds to consumers' changeable requests. As access is supported by a large typology of devices, such as touch screen displays, mobile devices, etc the **role of physical shopping assistant will change** the way of building trust, maintaining strong relationships with customers and understanding critical issues for value creation.

Therefore, the main factors characterizing smart retailing emerge as follows: developing capabilities, changes in knowledge management and in salesperson's jobs, creation of smart partnership, changes in service access and in consumption (Fig. 1).
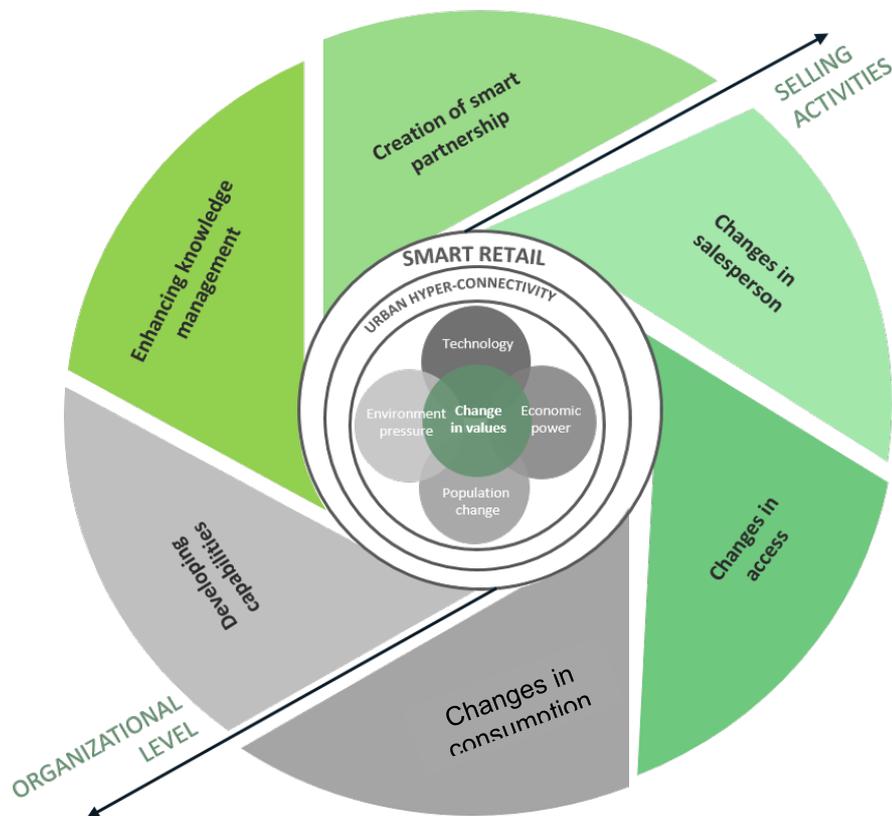
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CHALLENGES FOR SMART RETAIL

Each feature generates challenges for retailers to address the concept of smart retailing: (i) challenges resulting from the need of capabilities, (ii) challenges resulting from changes in knowledge management, (iii), challenges resulting from the creation of smart partnerships, (iv) challenges resulting from changes in service access, (v) challenges resulting from the changes in salesperson's jobs, and (vi) challenges resulting from changes in consumption.

- *Challenges resulting from the development of capabilities*

Retailers will need the develop **ad-hoc capabilities** that are constantly adapting to the changing environmental. This will require new organizational culture to evaluate and predict changes, as well as quick and precise practices to respond according to the changing context. Since these capabilities would require economic investments in human capital, supporting technological systems and time for transforming the prediction in effective successful actions, the challenge is how to manage them by **maintaining financial sustainability**.

- *Challenges resulting from changes in knowledge management*

Knowledge management strategies will focus on achieving **"*valuable knowledge*"** on consumers, and the *speed* to transfer product/service/firm knowledge to consumers. Thus, retailers will need to increase the level of automation in the process, and develop adaptive and sensitive filters focusing "only" on the important information. Hence, these filtering systems will require critical competences, such as expertise in **business intelligence**, **artificial intelligence** and **Big Data** complexity.

- *Challenges resulting from the creation of smart partnerships*

Due to hyper-connectivity, the whole information/knowledge ecosystem will change in the coming years. Information will be either **fragmented** by many firms **at a local scale** or/and controlled by few digital companied on a global scale. **Smart cities can arbitrate retailer-consumer interactions** by creating **smart partnerships** among the actors involved in the process. The challenges for such partnerships are **winning trust** from all partners in order to **build and maintain strong relationships** with consumers. For this, retailers need to make all the involved actors-consumer, firms, administration- conscious of the benefits

resulting from the partnership, while considering the role of each **partner equally important** for partnership success.

- *Challenges resulting from changes in service access*

Smart technologies will overcome the traditional limits of physical points of sale by allowing consumers direct access of products/services without physical seller assistance. On the one hand, this technology-mediated access requires new devices and effective usage, and on the other hand, it modifies consumers' traditional behaviour by adding critical factors that might influence the shopping experience, such as the control of the system and trust in the brand. Consequently, the challenge is how to **educate consumers** from traditional access to products and service for preferring the new ones provided by the smart technology.

- *Challenges resulting from changes in salespersons' jobs*

Smart technologies will change the routines of salesperson by moving tasks from employees to technology. They will increase the shift of tasks executed by humans to automated machines, with a negative consequence on the number of employees. As a result, the challenge is how to **motivate employees** to adopt a technology that may substitute their role.

- *Challenges resulting from changes in consumption*

Increased product customization and service flexibility, will dramatically modify consumption. These changes will generate new challenges on production and delivery costs, but also on the **shopping experience**. Current experience is characterized by synchronizing each step in consumer decision-making (searching, comparing, choosing and purchasing) with price, place and proximity. The new smart city scenario involves four themes: experiential, frictionless, curation and social. For this reason, the challenge will be how to **blend all four themes** into one shopping experience.

RETAILcat PROPOSALS FOR THE

SMART RETAIL 2030 CHALLENGES:

Proposals to stimulate innovation

1. **Promote projects with subsidies and public funding that are developed with alliances between retail companies and other sectors**. It is essential to share talent and investments. –

- *Objective:* new subsidies and public funding for 2020 that encourage cooperation.

Proposals for the new role of salespersons

2. **Define a strategy to modernize the salesperson's competencies.** Retail will become less labour-intensive in the years to come and to work in stores will require a different set of skills, knowledge and competencies; less manual/ labour skills and more social and technological competencies. It is necessary to define a strategy where on the one-hand help salespeople gain new competencies to adapt to the new retail requirements. On the other hand, people that cannot continue in the retail industry help them acquire competencies and skills in order to be reallocated into other industries. –

- *Objective:* develop a Salespeople transformation strategy with the administration, unions and retail companies. Project 2.020 to 2.022.

3. **A New profile of salesperson will be required in the years to come**: An expert, an actor, a psychologist, a brand ambassador. Existing educational programmes will not work in the future hence there is a need for more specific and tailor made training programs of short duration with high impact. –

- *Objective:* develop the RETAILcat training program during 2.019-2.020.

4. **A new workday category in retail will be needed** that must contemplate the increasingly important virtual aspect of salespeople. In the near future salespeople contact clients directly and without the need to be physically present at the point of sale.

There is a new workday category in the sector that will require a new agreement between stakeholders.

- *Objective:* To analyse with all related stakeholders the challenges of the new workday in retail. Project 2.020 to 2.022.

Proposals for the new space-store

In the future, the physical store will continue to sell products and services however, it will also play a new role of a meeting point where it will foment a space of relationships and experiences.

For this, it must be fully connected with the smart city, contributing to assist people's lives through the interconnection with other industries, sectors and services of the city.

The store will be a very dynamic and its space will change with high frequency. Consequently, there will be a need to foresee and help the sector to implement these spatial projects change in an easier manner. For this RETAILcat proposes:

5. **New sectoral classification of retail companies** (the existing IAE –Tax on Economic Activities - does not work). Retail as an industry incorporates more and more sectors with more diverse activities within the same establishment. In this sense, you cannot pay an IAE for each activity

- *Objective:* To make a proposal to the Administration to review the IAE classification and will be presented during 2019.

6. **Rental contracts must become more flexible in order to allow different options:** multi-spaces within the same premises and popup stores that change very frequently

- *Objective:* To make a proposal to the Administration to review the rental contract for commercial premises and will be presented during in 2019.

7. **Municipal regulations must be adapted to allow temporary street retail spaces**

- *Objective* to make a proposal to the Administration that will be presented during 2019.

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