DIGITAL MAP FOR TRADE

CONTENTS

INTRODUCTION

Upon the commission of the Hungarian Trade Association (Országos Kereskedelmi Szövetség, OKSZ) GfK has prepared a comprehensive report discussing the digitalization process Hungarian trade is facing. The analysis does not only discuss the present situation, but also covers the possible directions, diverging paths that are possible for the sector. Upon the request of the Association, special attention has been paid to the start-up as well as the small and medium-sized business segments since these enterprises can often only rely on their own resources and know-how, while the international players of the industry have their own strategies. Accordingly, the report also takes into consideration the operative tasks related to digitalization such as the technological steps of entering e-commerce as well as the day-to-day overview of the organisational-operational tasks.

This study maintains one of the essential stipulations, that is, it does not offer an overview of digital commerce (as a finished product) but it discusses the digitalization as a process, which will be unfinished for a long time. For the time being no manifest knowledge has been gathered either as regards the market potential or cannibalization effects, as a result the study will attempt to "include" the trends of the future in the broadest possible scope. Although the scope ranging from the introduction to the socioeconomic environment to an inventory of points necessary to start an online business analyses several factors, it will hopefully offer specific support to the brave entrepreneurs instead of divergent and uncertain ideas.

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1 CONSUMPTION AND THE MACRO-ENVIRONMENT

1.1 Macro-Economic Indicators

The size and volume of households' consumption in Hungary was determined by the macro-economic trends and data discussed below last year.

The gross domestic product was HUF 35,420.3 billion in 2016, which meant a 2.2% increase in volume. The per capita GDP increased by 3.5%, the per capita consumption increased by 3.3% when compared to the previous year (source: KSH - Hungarian Central Statistical Office).

Households' gross income amounted to HUF 23,636 billion in 2016, which was 5.1% higher than the figure a year before. Households' consumption spending amounted to 60% of the GDP, which was HUF 21,305 billion, 4.3% higher than in the previous year.

The gross average wage was HUF 263,200 in January-December 2016, 6.1% higher than in the same period of the previous year. The growth was influenced by the increase of the minimum wage and the guaranteed minimum wage, the increase of the monthly pay of the armed forces, the wage supplement and additional allowances paid to workers in the health and social fields.

The increase of the net earned income was 7.8% in 2016 – due to the 1 percentage point decrease of the personal income tax rate –, which exceeded that of the average of the gross income (source: KSH). The order of magnitude of the net real income increase was similar since consumer prices only increased by 0.4% on average in 2016.

As a result, the income of the household sector increased while the number of those seeking employment – partly due to the public works programme – fell by 73,000. The fall in unemployment and the increase in the income level had positive effects on consumption including retail sales.

The index showing the deviation of Hungarian purchasing power from the European average increased from 38.4% surveyed in 2015 to 40.6%, that is, Hungarians have to live on about two fifth of the European average. The per capita national purchasing power increased from € 5,239 in 2015 to € 5,549 in 2016.

The Hungarian population increased their consumption in all the main consumption groups in 2016 *(see Table 1)*. It was the expenditure on culture, entertainment (5.8%), telecommunication (5.3%) as well as catering (5.4%) where the increase

Table 1 | **Per Capita Consumption Expenditure of Households, 2015–2016**

Main Consumption Groups	2015 (HUF)	2016 (HUF)	Change (%)
Food and non-acoholic beverages	19 885	20 412	2.6
Alcoholic beverages, tobacco products	2 564	2 614	2.0
Clothes and footwear	2 454	2 572	4.8
Home maintenance and household energy	16 595	17 017	2.5
Home furnishings, running of the household	2 939	3 069	4.4
Healtcare	3 484	3 605	3.5
Transportation	8 076	8 191	1.4
Telecommunication	5 125	5 399	5.3
Culture, entertainment	4 097	4 337	5.8
Education	494	520	5.2
Catering, accommodation services	2 958	3 118	5.4
Other products and services	5 936	6 247	5.2
Total	**74 608**	**77 100**	**3.3**

Source: KSH (Hungarian Central Statistical Office)

Table 2 | **Specific Data, Productivity of Retail Shops**

	2012	2013	2014	2015	2016
Area of Retail Shops (1,000 m²)	16 368	16 034	15 532	15 475	15 405
of which					
Food and food in non-specialised shops total	4 959	4 893	4 774	4 777	4 772
Non-food total	10 726	10 519	10 159	10 082	10 057
Fuel for vehicles	683	622	599	616	576
Number of Retail shops	145 003	140 605	136 101	133 217	128 591
of which					
Food and food in non-specialised shops total	45 205	43 647	42 640	42 271	40 970
Non-food total	97 541	94 824	91 371	88 800	85 496
Fuel for vehicles	2 257	2 134	2 090	2 146	2 125
Average area of Retail Shops (m²)	113	114	114	116	120
of which					
Food and food in non-specialised shops total	110	112	112	113	116
Non-food total	110	111	111	114	118
Fuel for vehicles	303	291	287	287	271
Turnover of Retail Shops (million HUF)	8 069 595	8 360 527	8 796 389	9 118 828	9 512 529
of which					
Food and food in non-specialised shops total	3 095 938	3 352 081	3 496 697	3 682 674	3 878 561
Non-food total	3 409 400	3 438 275	3 675 491	3 901 550	4 131 015
Fuel for vehicles	1 564 258	1 570 171	1 624 201	1 534 604	1 502 953

Source: KSH (Hungarian Central Statistical Office)

Table 3 | Volume Indexes of the Turnover of Retail Shops*

(Same period of previous year = 100%)

Period	Food Retail	Non-food Retail	Fuel Retail	Retail Total
2015.	104	108	107	106
2016.	103	107	105	105

* Data without calendar effect

Source: KSH (Hungarian Central Statistical Office)

in ruling price was the highest, however, the highest real value increase – when compared to the low base – was seen in education (4.8%) and transportation and telecommunication (4.5%). In addition to the size of the expenditure, the figures that show how big part of the total consumption is made up by the mostly inelastic product groups such as food and non-alcoholic beverages, home maintenance and household energy as well as transportation, also indicate something about the quality of standard of living. The higher the amount a household's disposable income is, the higher the chance is they find a source to meet their other needs. The Hungarian population spent 59.2% of their consumption expenditures on items considered basic. The share of the three product and service groups (food, home maintenance and transportation) decreased by 0.6 percentage points within total consumption when compared to the previous year.

When taking a closer look at the consumption of food and non-alcoholic beverages, alcoholic beverages, tobacco products as well as clothes and footwear, it can be seen that the money spent on these products makes up 33% of total consumption, which is practically identical with the proportion from a year before. The fact behind the long-term decreasing trend of spending in retail shops is that the population's disposable income is increasingly directed to the healthcare and gastronomy sectors, and an increasing proportion covers online as well as housing expenditures.

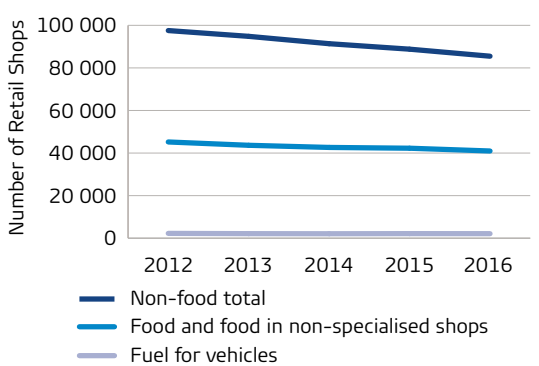
1.2 Retail Turnover

The retail sales turnover (excluding vehicle sales) was HUF 9,513 billion last year *(Table 2)*. The sales turnover volume of retail shops increased by 4.6% in 2016 compared to the similar period of the previous year. The sales volume increased by 2.7% in the food and in the non-specialized stores with food, beverages or tobacco predominating sectors, by 6.8% in non-food, and by 5.1% in fuel retail trade *(Table 3)*. The increasing trend seen from 2014 on continued during the January-August 2017 period as well since the turnover volume – according to the figures without the calendar effect – was 4.0% higher than in the similar period of the previous year.

The total floor area of retail shops (excluding shops specialising in vehicles and vehicle parts) was 15.4 million square metres at the end of 2016, which is nearly the same as the base of the previous year, however, the average floor area, with an increase of four square metres, rose to 120 square metres. When the average floor area is examined by product group from 2012 on, it can be seen that the specific increase in floor area can be observed in the cases of both food and non-food units, whereas the 303 square metres had decreased to 271 square metres in the case of fuel retail units by 2016.

Following a 0.4% increase, the per capita retail area in Hungary was 1.51 square metres in 2016. Looking back at medium term figures, this index was 1.65 in 2012, a more significant decrease can be observed in shops selling non-food products,

Figure 1 | Development of the Number of Shops



Source: KSH (Hungarian Central Statistical Office)

where the total floor area decreased by nearly 670 square metres in the last five years, which suggest increasing concentration in this area. This is supported by the fact that while the number of food retail shops had dropped by 4,235 since 2012, while the number of non-food shops decreased three times faster, by 12,045 shops or stores.

The productivity of a selling area unit (gross turnover of the selling area per square metre) is an important index figure of the turnover potential of retail locations. The development of this value is influenced by both internal retailer-specific factors – such as retail format and brand strength – and external factors such as the quality of the location, intensity of competitor activities and the purchasing power typical of the catchment area. When the change of turnover without the price effects is examined, it can be seen that while the turnover per square metre was HUF 795,000 in 2016 in the case of food shops and non-specialized shops with food, beverages or tobacco predominating, the similar figure in the case of non-food was HUF 414,000. This means a 43% specific turnover increase in the former, and a 32% increase in the latter case after 2012. The spread of discounts plays a significant role in the productivity increase seen in food retail trade, where the high rate of turnover plays an important role in the shops' business policy. The growth of online commerce added to the improvement of productivity, as a result, the major chains have been forced to consolidate their chains of shops in the last few years.

The overall concentration of ownership did not increase since one entrepreneur owned and/or operated an average of 1.47 shops both in 2012 and 2016, however, the so-called "big enterprises" and major market players are operating chains of shops of increasing size. While businesses with 21 or more shops had 72 retail units in 2012, the similar figure was 78 in 2016.

1.3 International Outlook

According to Eurostat data, the turnover at current price increased by 2.5% in the 28 countries of the EU in 2016 compared to the previous year (this figure is 4.7% in the case of Hungary). GfK forecasts a steady 1.4% increase in turnover for 2017 in the 28 countries of the EU. With the exit of Great Britain, the retail turnover will increase by 2.2%. There will be no changes as regards the regions affected by the growth when compared to a year before: the rate of growth continues to be the most dynamic in Romania (+8.9%) and Hungary (+5.7%). GfK thinks Croatia, Bulgaria and the Baltic states will grow by 4-5.5%. The increase in turnover is expected to reach 5.3% in Poland as a result of the revaluation of the Polish złoty and an increase in incomes and prices. Following two years when the turnover was decreasing, retail shops in Greece may breathe a sigh of relief due to the slight 1% increase forecasted for 2017. (Source: GfK – European Retail 2017.) The changes in the turnover of the 28 EU countries are shown in *Table 4.*

The changes in selling area are quite varied all through Europe. Both the absolute and unit values of the selling area were below the levels of the previous year in Austria and the Netherlands. Despite this fact – together with Belgium – these two countries continue to boast the highest per capita selling area figures within the European Union. The size of the selling area increased in Central and Eastern Europe accompanied by both favourable consumer trends and an above average retail trade turnover increase. Both expansion and the opening of new shops added to the increase in the selling area in Spain and Italy. In accordance with the trends of the previous years, the productivity of a unit of selling area continued to be at the highest level in Luxembourg, Switzerland, Norway and Sweden. At the same time, the last of the list, the Ukraine, has only 27% of the level surveyed in Luxembourg as regards the productivity of a unit of selling area.

Table 4 | **Change in Turnover Volume across Europe, 2012–2016**

	2012	2013	2014	2015	2016
European Union (28 countries)	-0.9	0.0	2.1	3.4	2.5
Eurozone (19 countries)	-1.4	-0.6	1.5	2.7	1.5
Austria	-0.3	-0.1	0.3	1.6	0.7
Belgium	1.2	-0.6	1.2	1.9	-0.8
Bulgaria	5.5	3.8	10.4	11.5	3.8
Croatia	-3.7	0.6	-0.,4	3.6	1.5
Cyprus	-4.3	-7.3	1.7	3.7	4.6
Czech Republic	-0.8	0.1	2.9	6.3	5.2
Denmark	-2.4	-0.9	1.2	1.2	0.4
Estonia	5.6	1.9	7.1	4.5	3.,7
Finland	1.3	-0.8	-1.2	0.4	1.1
France	1.8	2.0	2.2	4.2	3.0
Germany	-0.3	0.5	1.4	3.9	2.1
Greece	-12.1	-8.1	-0.4	-1.4	-0.6
Hungary	-2.0	1.8	5.1	5.7	4.7
Ireland	-0.6	1.6	5.6	7.6	5.4
Italy	-3.5	-2.2	0.4	1.8	0.4
Latvia	7.3	3.9	3.6	5.0	2.2
Lithuania	3.6	4.4	5.6	5.5	6.7
Luxemburg	19.1	12.8	8.2	-28.9	-53.1
Malta	0.7	-0.8	0.0	7.0	2.2
Montenegro	4.6	9.4	4.0	2.0	2.7
Netherlands	-3.0	-3.9	1.2	2.2	1.2
Norway	2.8	1.8	1.4	0.6	-.7
Poland	-1.2	4.8	1.2	6.5	6.0
Portugal	-5.9	-1.6	1.2	2.1	2.8
Romania	4.1	0.3	6.4	8.8	13.3
Serbia	-2.6	-5.8	2.0	1.6	7.2
Slovakia	-0.9	0.1	3.6	1.7	2.2
Slovenia	-2.2	-3.2	-0.3	0.7	4.2
Spain	-8.1	-5.0	1.0	3.6	3.6
Sweden	1.9	2.3	2.5	7.1	2.5
Switzerland	3.7	1.8	0.9	-1.3	-2.0
United Kingdom	0.7	1.2	4.6	4.4	5.5
Turkey	5.2	4.1	3.9	3.6	0.8

Source: KSH (Hungarian Central Statistical Office)

2 THE EFFECT OF THE SOCIAL AND ECONOMIC ENVIRONMENT ON TRADE

2.1 The Connection between Trade and Innovation

The retail sector – especially in the Eastern European markets – is traditionally characterised by a way of thinking and style of management that use the events of the near past and focus its resources on present processes. At the back of it is the sudden development characterising the past 20–25 years, which limited and often made planning in strategies unnecessary as well. This particular manifestation of evolution was accompanied by expansive operating models. It did not support the development of either medium- or long-term strategies, especially not ones systematically and jointly developed with professional industrial advisors.

However, the new forms and channels of trade awakened the managements' attention to the future and the local (domestic) companies also took up developing more conceptual plans.

The following summarises the innovation patterns of retail trade because this will help the players of the industry to pose the right questions.

Today many even among the managers of the sector feel that we are witnessing changes that do not only modify the presently known operating models but also fundamentally rewrite the value chain. The biggest fears are formulated against online commerce, but – in the near past – the role of modern channels (discounts, hypermarkets) that upset the local ecosystem have been sharply criticised (the "boxes" attract the purchasing power from the city). The worries about innovation and technology-based developments is not new in the professional canon.

In an article published in the Harvard Business Review in 2006 by C. M. Christensen and R. S. Tedlow, the authors list four critical factors as the main functions of trade: customers should be supplied with the right product at the right place, price and time. The history of trade development is practically meeting these criteria through a flow of so-called disruptive innovations. The most often technology driven change of the production model that fundamentally upsets the value creating chain is called disruptive, that is, destructive innovation. Although nowadays we are inclined to declare electronic commerce the only source of danger that violates the existing rules, the retail sector has already gone through similar revolutionary periods.

The first innovation in the history of economics well known to us was the emergence of department stores. The second, the mail order service was connected to the introduction of catalogues. The third is the spread of discount stores, and internet commerce is obviously the fourth disruptive innovation. Let us not forget that this is only the last 150 years we are talking about, yet four strong trends shaped the industry. At the same time, the profitability of the sector has not necessarily changed to the extent that environmental factors would have suggested.

An average department store operates with an approximately 40% margin and changes its stocks three times a year (turnover rate) in the United States, which means the 40% margin is realised three times a year, and 120% of the invested capital is recovered. A similar annual rate of return is seen in the case of discounts as well, but there the average 23% margin is recovered five times annually.

Amazon, which threatens the existence of a lot of traditional retailers, is operating with a 25-times-a-year rate of return, and the margin may reach 5%, nevertheless, the internet trade industry does not yet have a standard average. Thus it can be seen that the profitability – the relationship between the margin and the rate of turnover – is eventually in the same range.

In order to understand the future of retail trade – and beyond the technological developments – the disruptive concept behind the different business models should be noticed. Local retailers, corner shops traditionally operated and still operate with a high margin since their high need for stocking and the labour intensive service requires it.

The slow, even the twice-a-year rate of turnover clearly results in high prices. The wave of urbanization taking place at the end of the 19th century and the beginning of the 20th century brought the general department store into life, the first of which was established by Marshall Field and R. H. Macy. Although the service was less personal, it offered the right products (here it also means good quality) at the right place. As the development of the railway infrastructure was the driving force in the case of the mail order service introduced by Sears in the 1860s (catalogue shop), it was also the logistics, then branding as well as the professional management culture that drove the business in the case of department stores as well.

The mail order service, which delivered the products to a large number of rural population, was actually a forerunner of today's internet-virtual model. At the same time, the zero marginal costs (where the production cost of the second-third-nth product/service nears zero) lays totally new rules today. We cannot talk about warehousing costs in the sense it used to exist, or at least this is not the dominant cost ratio. It is interesting that Sears later opened physical shops, and by doing so he set an example to today's champions of internet retail trade. The importance of the multichannel model was established back then.

The next real innovation, the emergence of the discount concept, was facilitated by the spread of automobiles. While the shopping centres (malls) of huge selling area also built their success on mobility, discounts can rather be considered a destructive-creating innovation. Not only because of the efficiency of their work organisation, but in some countries also through their effect on the whole of the economy. In Germany, where this channel has achieved outstanding success, discounts considerably ease the inflationary pressure.

As it happened in the case of department stores, discounts also created their branded consumer and manufactured goods assortment first. The development of the two different distribution types exercised mutual influence on each other since the "heavy goods" assortment of the discounts pushed general department stores (in America) towards cosmetics, furniture and clothes portfolios. Interestingly enough, the discounts – after having pushed the departments stores out of large consumer goods – started a cutthroat competition with each other, basically in the field of pricing. First it happened in the American market rather than in the European ones, but a new player – which can be placed in the continuous innovator category – started launching attacks on the lower niches of the market: the category killers. Innovations and responses given to them have always been typical of the industry. However, the Internet has definitely put new colours on the map of trade.

Within the correct product-place-price-timing system of criteria, online retailers can easily meet the first three. A never before seen wide selection of products at constantly low prices. It does not make sense to talk about place further on, the only disadvantage compared to the instantaneous nature of stationary retail trade is timing. But if we believe that the 3D printing technology may gain ground on consumer markets as well, it will be difficult to find objections to the connection of the online world and trade. Nevertheless, development is not only linear, there are periods of seeking ways and means that reach back to previous models. The leading online retailers such as Amazon open traditional shops in order to be present at every milestone of the shopping journey and accompany their customers. The same way Sears did it a lot of years ago when they opened department stores in addition to their mail order services. It is certainly a difference that today's virtual retailers do not necessarily need a point of sale, only a venue where they present their products. This is how the Point of Sale – Point of Purchase concept has been transformed into Point of Showing. But this is a new chapter in the history of continuous developments.

2.2 Effects Shaping the Trade Environment

By narrowing down the horizon of a decade-long forecast, the following groups of factors will be examined for the next five to ten years:

- geopolitical/strategic/economic,
- labour market,
- urbanization demographic,
- technological and
- new patterns of consumption–retail trade.

It is not the primary objective of this study to analyse macro- and global trends in detail, but in order to outline the possible directions of the retail scenario, we need to understand the major elements of the global ecosystem.

2.2.1 Geopolitical/Strategic/Economic Factors

It is not a new phenomenon in consumer goods manufacturing that the venues of manufacturing, distribution and even purchasing/consumption are separated from one another. This is about nothing else but the global supply chains that redefine the physical (country) borders. Although this may seem very distant to domestic players facing their local problems, the situation is actually different. The appearance of transnational trade enterprises in Hungary nearly two decades ago was a sign of

the global expansion of supply chains. After seizing the territories and the expansion boom, today the competition is not merely for physical resources, the "boxes." It is a lot more about influence, market share, which is served by pricing driven by the purchasing policy covering the whole continent/region. In order to be able to control the retail supply chain, we do not (necessarily) have to open new shops. It is better to offer the right products in good quality and at the right price.

However, this relentless technology driven logic may be disturbed by trends that on the one hand surface as a result of the social-consumption counter-trends, on the other hand can be classified as innovations. A good example of the former is the slow-food movement, which may seem an isolated phenomenon, but the consumer demand for organic food and the trend seeking authenticity withdraw a lot of money from the global game. 3D printing, a technology that is futuristic today, but will become reality in one or two decades, belongs in the latter group, that of innovations. This may entirely rewrite the channels of distribution as known today since consumers (prosumers) will produce the purchased (ordered/downloaded) products in their own homes. However, the digital economy has its marks even on today's supply chain. We are witnessing five fundamental changes that are taking the former framework of the economy apart:

1. Use instead of Ownership

The modern/postmodern economic thinking was interlinked with social demands when a model based on sharing the right to use of the product appeared instead of its ownership. For the time being, it has appeared in the mobility and tourism industries more markedly, but this phenomenon is often seen in peer-to-peer interactions as well. Although it may seem customary, the swapping taking place in the baby categories, the lending of different commodities when organising holidays surely keep significant sums out of the tills of traditional retail trade.

Car sharing seen more and more often in transportation, and flat rental boast considerable income already. For the time being retail trade is only a passive onlooker in the spread of this concept, however, the question spontaneously arises: why do the players of the retail sector who – theoretically – know the data and customs of hundreds of thousands, millions of their customers, ignore consumption based on use? Trade is one of the industrial branches that has the most information both in amount and depth about its customers. It is time that this does not only mean exploiting the data for sales and marketing purposes, but the players of the sector should start to build their own business models based on the already acquired clients. Why is it car manufacturers that are developing the ecosystem of urban car sharing?

2. Service instead of Industrial Product

It is a more obvious economic phenomenon than the previous one, although the economic policies of some countries question the changes in the international competition. Its significance can also be detected in the trade sector by developing the value chain at a higher level. The physical location (the shop) and the mere labour force, which can be considered a hard factor, in themselves do not guarantee success in retailing. What is more, the golden triple rule of location-location-location does not guarantee victory, it may only function as a basic requirement. Taking the products to customers is not sufficient any more unless it is the supply of a small-settlement rural area. This, however, is more of a social issue or the prototype of a business incapable of renewal rather than the manifestation of innovative (retail) trade.

3. Efficiency of the market instead of the Efficiency of Manufacturing

It is a change partly related to the previous point since its effect is not felt due to the value added services. The representatives of traditional economy have taken several steps in the last decades to optimise their production processes and work organisation. However, cost efficiency in itself does not lead to success since there will always be a cheaper, a more efficient one in the global supply chain. Today it is not the American/German/Japanese work organisation models that dominate the special literature about management but it is the experiments aiming at setting the optimal balance of market classification and the right direction and timing of joining in the global production chain that reaches beyond the physical borders. Market regulation is a hot topic in the trade sector and not only in Hungary, but in the whole of the EU. The difference in the approach is that while

they strive for strategic agreements based on delicate balance, parity and aimed mostly for long term on some markets, a series of ad hoc decisions driven by current political interest can be seen at other places. In order to be able to maintain the parity among market players, the retail sector has to develop its ten-year strategies (Agenda 2028). For this they need to lay down the directions, visions that respond to digital expansion and keep the regulatory intentions in hand as well. Only this can create a regulated completive environment that is free from discriminatory regulations and is regulated only to the necessary extent.

4. Platforms instead of Companies

The spectacular spread of Uber or Airbnb led to the point that the existing market mechanisms are now described as a platform economy model. Although the traditional corporate-structural constructions are not yet to be created, the technology-based solutions completely rewrite the operational processes. The players of the digital market belong to it as well, since it is not the large labour force or the number of shops/warehouses that constitute the resources of value creation, but the intelligent information technology solutions. It is sure that the existing operational mechanisms of the retail sector will not be replaced by the solutions of the Industry 4.0 model in five years. However, the pressing lack of labour force will create the platform-based management of certain activities and functions. A thing that, for example, is worth starting with and will not overburden any of the small and middle-sized businesses: the processes of post-purchase, which is neglected in Hungary anyway, could be automated and platformized. Customer service, database management, customer satisfaction management may be typical areas of this. But not in themselves, rather within the ecosystem of a complex corporate-business intelligence. Where decisions are made, business intelligence is needed as well. At different levels, but both in large and medium-sized businesses.

5. Self-employment instead of Fixed Employment

Approximately a third of the American labour force, somewhat more than fifty million people, do not enjoy the advantages of being an employee, they rather shape their fortunes themselves. The technological changes, especially the disruptive ones, question the long-term opportunities of several professions. At the same time, this is about creating employment opportunities, not losing them. Technology rather serves as a substitute for the pressing lack of skilled labour, and does not replace people (at least not in Europe).

The distribution branch suffering from a serious scarcity of labour is constantly seeking the way out. The inclusion of pensioner cooperatives seems a viable solution, but self-employment may be worth a thinking over in the long run as well.

The above described changes had different effects on the Hungarian retail sector. It may seem to many that the present Hungarian reality and the near future is untouched by the changes. Yet, the local business decisions are not independent of the events taking place in the world. The knowledge of the so-called Big Picture, the wider social-economic environment is indispensable when decisions are made for years.

2.2.2 Demographics and Urbanization

There is no economic field without territorial/spatial implications, the same way as a strategy covering a decade cannot neglect the directions the population moves. The trends of population geography fundamentally determine the potential of an economic branch. Since retail trade by nature operates within local or national economic frameworks, the movement of the population, its development, or even commuting are important factors. Although online trade breaks down the borders set by stationary trade (no warehousing costs or fixed opening hours), its importance is limited for the time being.

The responses given to population geographic dilemmas are always strongly motivated politically. The answers to demographic challenges are perhaps not so much, but the ones formulated along settlement geographic lines are more direct. This is how the billions spent on the world of small farms or budget resources allocated to the infrastructural development of small villages should be interpreted. However, it is only the knowledge of facts and trends that should influence retailers when making decisions about investment or chain

development. The ministry coordinating the Modern Towns Programme announced in September 2017 will in some form or other accompany us in the following decades as well. Nowadays the modern world is building city-states, and even if Hungary will not have conglomerates of multi-million people in the next 10-20 years, the knowledge, technological transfer accumulated there should be used to our advantage. The shocking figure that although cities cover three percent of the surface of the Earth, they are responsible for 80% of the global GDP, should make every responsible economic decision maker think. The situation is disappointing at the bottom of the settlement system. During the thirteen years following the turn of the millennia, the population of small villages decreased by a seventh (14%), the population of bigger villages decreased by 3-5%. This is a warning sign for the national food retail chains that cover practically the whole country. Further macro-data are not promising for small-big villages either. The growth rate of national-level GDP may peak in 2030, but the rate will slow down from then on.

Similarly, the consumption rate broken down by county will only rise till the middle of the next decade, and will go downhill afterwards. It may show some growth for a while, but the rate will decrease. The development of the future territorial-structural vision of Hungarian retail trade cannot be delayed. However, it is already apparent today that a further decrease in the number of shops is expected. In half a decade – between 2012 and 2016 – the total number of more than 150,000 shops decreased to 136,000, by 12%, but further decrease is expected by the end of 2017. In addition to the fact that 2,100 shops closed down in settlements with fewer than 5,000 inhabitants in five years, the shop chains of small towns also suffered during these years. The fall exceeded 4,000 in small towns of 10–50,000 inhabitants. This is due to the, by international standards, "overdeveloped" network and high number of shops as well as the decreasing population (including foreign migration). No ability to foresee the future is needed to see that the next few years will be about survival or perhaps about investment to preserve the buildings in small settlements. The areas where modernization and new technologies will be introduced will solely be the bigger settlements. Taking shops to the population should be forgotten about in the next 10-15 years. Access, products and services must be provided, the years/decades of traditional retail trade in small villages are numbered.

2.2.3 Labour Market – A Hot Topic

In 2016, GfK – in a report commissioned by OKSZ – estimated that 30,000 people were missing from the retail branch. Due to the sensitivity and pressing nature of the problem, respondents are inclined to overestimate the number of those missing. But in this case the almost daily updated corporate news support this estimate and it can be accepted that the number of the missing labour force is in the tens of thousands. The prestige of the retail trade, the wage system and quite often employment abroad are the important reasons for the tensions on the labour market. The labour situation of the sector is so problematic that it is not even worth seeking a solution in the present, it is rather about emergency measures.

Although robotization and digitalization is light years ahead of most retailers, there are progressive examples among the international players in Hungary as well. According to the presently prevailing theory, there are three preconditions that may significantly limit robotization, that is, live labour force cannot be replaced:

- the ability and necessity of responding to unexpected environmental conditions,
- tools requiring creative intelligence, and
- types of work based on social cooperation/ intelligence.

The bad news is that trade as a whole does not meet these requirements, only individual parts of it can be classified in the above categories. Today the labour force is the main resource of traditional retailers. However, demographic movements and the massive reputation deficit of the industry rewrite this practice. Although the economically active population (19–64-year olds) is 6.3 million today (2nd quarter of 2017), it will be around four million in four decades and will show a continuously decreasing trend. It is the 2020s and 2040s that cause the biggest problem in the long-term trend.

Part time employment solutions, reemployment of young mothers and the elderly, cooperative movements may ease the tensions of the labour market in the short run, and the creation of a flexible regulatory/employment system is a pressing and necessary task in general. However,

different opportunities must be sought as part of a long-term plan, and the existing technologies must be introduced as soon as possible. According to the forecast of the global consulting firm McKinsey, approximately two million jobs may be transformed in the next two decades. This shocking figure does not suggest that jobs will be lost, but the lines of activities and the actual jobs will be redefined in large numbers. Even if this forecast is considered far-fetched, it is certain that in ten years countless of positions and professions will be defined differently from as we know them today. Robotization and digitalization are a series of relentless technological events. Trade needs to utilize the developments of the digital economy as a response to the challenges posed by the labour market. The future will belong to those who own the most important resource of the modern age, the data. Live labour will not be the most important asset of the company, instead but the ability to transform the data obtained from customers into knowledge.

2.2.4 Technology – Basis of New Business Models

The term technology is surely the most often used word in manager vocabularies. But due to its present scope, it possibly causes the biggest headache as well when making business decision. Where should retailers invest their limited resources? If logistics is winning and the warehousing system is modernised as a result of these investments, then the development of shop technology will fall victim to it. If the decision goes for the digitalization of in-store marketing tools, then the software platform of internal process organisation will not be lifted to a higher level. However, a careful retailer does not only deal with daily problems, but also takes a look behind the horizon of the industry.

In the immediate vicinity of the industry, the field of electronic commerce and platform economy is dominated by the notion of zero marginal cost. The drastic fall in the production costs following the creation of the original product is the essence of Internet trade. Only digital technology and the platform model are capable of creating it. The business models of the future are based on it and at least four tends – accompanying the present industrial revolution – must be considered. Firstly, Communication Internet, which lays down the base for the modern economy, and the acronym GAFA must be mentioned. The latter stands for four disruptive companies: Google, Apple, Facebook, Amazon. They have profoundly turned the communication order of the world upside down, and at the same time laid the foundations for a series of business concepts. One of the most important characteristics of their activities is that they are seemingly free.

Energy Internet means the micro-management, storage and sale of energy production, since the household unit can be the key figure. This is a prospective system that mostly big energy companies are capable of dominating, but retail trade could also have a role at any point of the value chain. Logistics Internet means the mobility driven by smart data, the optimization of the supply chain is an essential role of the players of the distribution chain. The Internet of Things (IoT) signifies a new level of platform economy and its importance is well illustrated by the fact that the number of connected devices is estimated to be 30 billion by 2030. By this, the whole work organisation and corporate ecosystem are placed on new foundations. The automatic generation of demand (Internet refrigerators), orders, delivery and payment create a new model of trade. Retail trade also makes a profit from the spread of new technologies in the short run. One of the foundation stones would be/ is the development of complex customer databases, CRM systems in every business and the creation of meaningful, simply monetizable data analyser and knowledge systems. It is not necessary or possible to establish classes comparable to those of data analyst companies with decades of references (see Tesco – Dunnhumby), the management attitude towards it is more important. Nowadays it is not the economies of scale that matters, at least not that of physical structures. It is worth paying attention to the rule of databases and platforms instead: the value of a network is proportionate to the square of the number of its members. How many of the 93,000 Hungarian retail businesses are aware of it? How many of them have spent at least half a million HUF to manage the database of their customers?

It is not easy to make a profit in retail trade. For the time being, online sales have not brought too many novelties in this respect. But it has taught the traditional players one thing about the nature of platform economy: if an Internet service is provided free of charge, we are not consumers any more. We ourselves are the products. Where can retail trade connect to this value chain?

2.2.5 New Patterns of Shopping

It seems that the models describing the shopping process and working for decades are losing their validity. Not necessarily because certain phases disappear, rather because they overlap in time. The learning curve preceding the purchase is difficult to separate from the pre-information range, which actually continuously affects consumers. The number of points of contact (experience points, customer points) has grown exponentially, and it is difficult to seize-catch customers at the individual phases. Dozens or even hundreds of stimuli-inputs reach consumers. The process of brand and product selection, or even the decisions of shop selection cannot be divided into sections interpretable in the traditional sense. The post-purchase phase deserves special attention within this continuum. It opens up new horizons for digitally assisted trade in the so far neglected customer management. When a middle-sized national or regional level retail chain establishes its CMR system and has continuous connection with its customers, that will signify a higher level in the value chain.

A new driving force, the so-called meta-services, will also stimulate consumption. For example, if IKEA offered real estate agency services, or a platform for the tens of thousands of students in Hungary, or the retail chains entered the mobility market and invested in the car sharing business, that would not only mean the diversification of their portfolio that has existed for decades. It would mean the zero marginal cost based on the more efficient use of their resources. It is not in order to share the management costs among more areas, but because the wealth of data constitutes the resource here, because a retailer – if it has a professional customer management system – possesses a database describing the habits and behaviour of tens or hundreds of thousands of potential users. Utilizing them is the real disruptive business concept.

The often used and fashionable terms in the marketing vocabulary often disguise the real meaning of an innovation. The Point of Sale – Point of Purchase – Point of View chain does not only demonstrate a different philosophy of approaching customers. On the one hand it indicates the change in the relationship to customers since the shift from the point of sale (Sale) to the point of purchase (Purchase), for example, resulted in the higher prestige of in-store (trade) marketing departments. On the other hand, new business opportunities lie in them since the Point of View concept may create new cooperation between players that have not cooperated so far. Why would Internet retailers or electronic chains considering online trade as well not use the highly frequented (experience point) petrol station chains to present their novelties (showrooming)?

The message of the new type of shopping is that the way customers are reached and the communication with them should be placed on new foundations. An ecosystem that is continuously interacting with potential customers should be built, and it cannot be imagined without using digital technology. It is not only the purchase transaction that has to be tracked, but customers have to be followed on their (permanent) journeys.

3 THE TERM DIGITALIZATION

In today's linked, computerized and communication-centred world businesses with a proper future vision dictate the new rules in their respective industries in particular through the new e-business models and the processes within their businesses. These companies use the technology to modernize their operations, advertise their products, create customer loyalty and finally increase their profits continuously. These businesses satisfy the changing needs of their customers through a unified Internet-based operation, because they are aware that the demand, taste and expectations of e-customers shape businesses. Businesses with a proper future vision also recognize that they have to unify their business plans, processes, applications and systems in a never before seen fashion. This customer-centred, essentially Internet-based unification, business and infrastructure development is called digitalization, the integration of digital technology.

The business model of successful businesses with a good knowledge of the Internet economy is called e-business. Thus e-business is the summary of all the endeavours whose objective is the support of the organisational and business processes that reach beyond the organisation by using the modern information and communication technology tools and the results of digitalization.

The most important networks and network technologies of e-business:

- the intranet handling the internal communication of a closed user group within the company,
- the extranet handling the communication of a closed user group involving external environmental partners as well, and
- the fully open Internet.

Digitalization has been (is) made possible by the development of information technology, or rather its results. The term digitalization itself is an umbrella term for the electronic technologies collecting, storing, processing and forwarding information. It consists of two, almost inseparable special fields:

- computer science processing the information (e.g. computers),
- telecommunication forwarding the information (e.g. telecommunication systems).

However, the term information technology more and more signifies the combination of the above mentioned two categories.

The corporate information system is an organisational element that supports the expectations, business objectives of the organisation. It is the summary of people, activities handling the coordinated and continuous collection, processing, storage and servicing of information regarding the company's environment, internal operations and the transactions of the corporate environment as well as the hardware and software tools making these functions possible.

The infrastructure is all the tools and basic services that make the operation of information systems possible.

3.1 Areas Where Digitalization Is Utilized

Among the participants of communication based on computer technologies the following communication types or connections are distinguished: business-to-consumer (B2C), and business-to-business (B2B) between companies. While in the case of B2C it is about business-trade relationship between businesses and their end users, B2B refers to the business maters between two or more businesses, for example the relationship between the given business and its suppliers. Nowadays very many business processes have electronic support, and subfields of e-business are developed as a result such as electronic purchasing, e-commerce (sales) or e-recruiting (employment).

A never before seen, comprehensive and fast reconfiguration of business life can be seen today. E-commerce dissolves outdated business models, changes the cost structure and transforms the connection between customers and sellers and that of all the elements between them. At the same time, it makes traditional boundaries between the business partners of companies and their customers disappear, and changes the nature of their connections.

Digitalization exerts the greatest influence on customer relations management as well as the organisation of the supply chain. This can be summarised as follows:

3.1.1 CRM – Customer Relations Management

Customer relations management means a business strategy and the process that realises whose objec-

tive it is to identify, win over and retain the clients that bring profit through satisfying their needs at a high level. CRM applications are characterised by operative and analytical functions that are in accordance with the above definition.

Operative Functions:

- Relationship management: support of direct customer relations.
- Unified customer records – data collection in order to obtain thorough knowledge of existing clients, keeping a relationships log, registering sales opportunities.
- Support of efficient service process: customised client management, tailor-made offers, order tracking, workflow management.
- Management of marketing promotions (campaigns).

Analytical Functions:

- Data collection in order to obtain knowledge of customer groups and the market.
- Development of client strategies – analyses, data mining aimed at selecting the target groups for campaigns to bring in new customers.
- Analyses aimed at developing the supply.
- Analysing the success of campaigns.
- Analysing the development of customer retention.

CRM systems provide assistance in the following fields:

- relationship management (accessibility of customers, clients),
- planning sales and marketing promotions,
- tracking the sales process,
- recording offers and orders,
- managing distribution channels,
- call-centres,
- management of service and lease contracts,
- document management,
- supporting decision making with the help of different analyses, statistics,
- telemarketing,
- customer relations care.

3.1.2 SCM – Supply Chain Management

Supply chain management means a business strategy and the process realising it, whose objective is to obtain competitive advantages and maintain competitiveness by optimising the whole supply chain from raw material production to the delivery of the end product to end users and the related services (servicing, waste management, recycling).

Four conclusions can be drawn from this interpretation:

1. The service of SCM requires a kind of process integration of IT applications. SCM can be established through the integration (linking) of the logistics systems of typically manufacturing companies, suppliers, customers, logistic service providers.
2. Since the supply chain includes the contact with end users, consumers as well, there is inevitable overlap between SCM and CRM (e.g. surveying customers' needs).
3. Since similarly to CRM, SCM has both strategic and implementation (executive) elements, it is stands to reason to distinguish operative and analytical (or strategic) SCM.
4. Since the operative SCM is an extension of logistics, it shows extensive overlapping with the corporate governance system, so it is not a coincidence that the SCM solutions used in Hungary are all supplementary parts of ERP systems (e.g. SAP, Oracle Application, MFG/PRO, BPCS).

3.2 Digitalization in the Supply Chain – The Omni-channel Strategy

Nowadays digital trade is often confused with the term e-commerce, although it is only one of its manifestations; digitalization has several other as-

pects. Multi- and omni-channel models are mixed in the same way (multi-channel vs. omni-channel). Although both the Hungarian everyday language and the technical jargon neglect the distinction, it is worth focusing on the differences, because they imply different business models. Although it is more difficult to distinguish them in time, the omni-channel approach undoubtedly represents the most modern managerial attitude. For a long time, we were inclined to identify portfolio diversification with omni-concepts. At the same time, the extension of the product or service portfolio to other distribution channels can be rather interpreted as the spreading of (general) costs and the exploitation of ad hoc opportunities. A proper and right solution, but cannot be considered real innovation.

Compared to this, the multi-channel operation model raises the customer management and integration between the channels to a new level. The latter practically means catalogue trade operating as offline, online and direct marketing channels. The managements of companies (might have) strived to cooperate, but the management of the different channels are still separated.

On the other hand, the omni-channel operation includes several channel types, but mobile (smart) phones have a great importance in it. Showrooming already has a role in it, which today often means the web-rooming option; it is enough to consider Ikea's web solutions. The omni-channels – such as web searches, display, e-mail or referral sites and of course smart phones – constitute a never before seen array of available tools. The multi-strategy optimises sales, the omni-concept includes the brands as well, and it actually integrates the consumer, the brand and the sales. As a result, omni-channel retailing optimises the number and appearance of the customer experience points in the whole process. The differences in the operation of multi-channels and omni-channels are summarised in *Table 5*.

The role of digitalization in trade should not be replaced with online sales, because it made up 8.7% of global retail turnover in 2016. However, the overwhelming majority, over 90%, of the turnover is through physical shops. This dominance will remain there till 2020, even if online turnover will increase to about 15%. In Eastern Europe, which is a more relevant comparison for Hungarian retailers,

Table 5 | **Differences in Operation of Multi-channels and Omni-channels**

	Multi-channel	Omni-channel
Focus of channel	Only interactive channels	Both interactive and mass communication channels
Coverage of channel	Shop (offline) retail, online and catalogues	Shop, online, catalogues, mobile channels (apps, tablets, smart phones), social media, client experience points (mass communication tools, peer-to-peer etc.)
Separation of channels	Separated, no overlap	Integrated, uninterrupted connection
Brand vs. channel-centred focus	Focus on client sales	Focus on client sales and brands
Channel management	By channel	Cross-channel approach
Measurement	Channel-based (channel turnover)	Total turnover

Based on Verkauf–Kannan–Inman

the e-commerce of B2C will have a slightly more than 3% share of the total retail turnover (3.4%).

The online market has increased dynamically, by 6%, in the Eastern European region in 2017 (Statista, 2017) and produces 2.66% of the region's GDP. But the multi-, and then omni-channel operation ignores the single-channel approach and revitalises stationary trade, which often is a symbol of the past. Online and offline supplies are united, online is strengthened by the experience physical shops provide. Technology even further intensifies this integration, a good example of which is the cooperation of Apple and IKEA through augmented reality. The planning may be done beforehand or at home after the visit to the shop (on a smart phone), but it is almost sure that this will not stop most of the visitors from visiting the shop. The creation of the new customer experience, the reinterpretation of certain elements of the value chain in the organisation and operation of the companies also poses some new challenges.

It is enough to consider what new skills a retailer having operated on the market within the traditional framework for decades has to learn/"obtain from the market." Half of the population has a smart phone in the USA, and seven in ten of them use their phones for comparison during their purchases.

The proportion of smart phones is over 80% in Hungary, although one in six of them do not use the Internet. Twenty percent of the users use price comparison, and four in ten of them check other people's experience as well. This is a continuous showroom function, whether it is physical or virtual space, where customer management is transformed. Tracking the customer journey and ensuring constant presence (of the retailer, manufacturer, brand) requires new roles in everyday practice. Whether it is a medium-sized electronic retailer or a multi-billion food chain, the task now is to choose the proper steps *(Table 6)*.

The omni-channel strategy sets several requirements for businesses that are different from those seen so far:

- The content that leads potential customers along the purchasing process has to be assigned to attractive pricing. It is not necessarily the advertisement feel that is needed, rather content that sounds like advice.
- The data is available almost everywhere nowadays, the art is not in producing, obtaining it, but in interpreting it in a meaningful way that suits the business objectives. The combined use of social media content, mobile use habits and (geo)location information will clearly take the retailers of the future to whole new levels.
- Price comparison has undoubtedly become a common customer activity, even if not on mobiles and on the spot in the shop, but most people shop around at home on their desktop computers to check whether the refrigerator found in the department store can be obtained at a lower price from another source (channel). This is why it is practical to avoid direct comparison. For example, if the manufacturer produces its products with slight differences, they are given different EAN codes. The pricing competition can also be avoided if products are sold bundled (linked buying). Successful linking is ensured by purchasing data (basket analyses).
- Selection optimization is a major issue in trade. Only a correctly calibrated selection ensures the proper turnover rate. This, however, excludes keeping less often purchased products in stock. Combining online and offline may also help to solve this – long tail problem – should the integrated information system of the given retail chain inform its customers about the closest location.
- Digital technology makes product representation more exciting, more experience-like as well. Not only from the design, but also from the contents point of view. The number of conscious and mostly informed consumers-customers will increase, which enforces thorough information provision. The already mentioned data even adds to it: 40% of interested people visit sites where others share their experience about the given business/product/brand.
- Customers who have had good experience are willing to spend more. This is why retailers should strive to direct customers towards more expensive service packages, ones that generate more income for the retailer. The VIP/Premium margin will work if there is proper content and related credibility. The omni-channel concept can help a lot so that customers pay more for the extra services (including the physical products as well).

- The above mentioned credibility, high degree of transparency pays off. Hundreds of thousands of brands strive daily to meet these requirements. The more customers are involved in the process, the more they will feel the product or brand their own. The omni-channel model seizes the imagination of customers in a lot more ways than before. Should the retailer build a complex enough system round the customer, the success is seldom far away.

The input side of the supply chain, suppliers would deserve a separate chapter. On the basis of forecasts, the practice of distributing products in bulk, in the same packaging to different retailers will be replaced with something new: an approach where the omni-channel retailer deserves special attention and receives something different, even at a premium price. The roles and the sharing of tasks between the players of the distribution chain will become less defined than in the past. The value chain will dininish the contours.

Forecasts of the industry suggest that it is worth investing in the omni-channel model. The physical shop, the online and mobile presence inte-

Table 6 | **Successful Strategies of Omni-channel Trade**

	Short-term Strategies	Long-term Strategies
All retailers	■ Create cost resources for developing loyalty programmes ■ Build BIG DATA analyses	■ Create exclusive portfolio ■ Create connections between products and product-service ■ Prepare analyses to explore product design, portfolio, channel selection and new product launches
Dual players		■ Integrate channels ■ CRM and ROI (Return on Investment) management for dual model
Shop retailers	■ Develop online information base for shop (physical) searches and the development of "click and collect" model ■ Focus on the development of information base and services, and create "instant reward" experience for customers ■ Realise price premium as a result of the proximity experience (and through the related services)	■ Develop dual channel model
Only online players	■ Everyday low price offers and develop properly managed content for it ■ The "product that can be experienced" has to be made an (online) in demand product ■ Physical showrooms have to be created ■ Local pickup points have to be created	■ Focus on niche products (especially ones that are not available locally) ■ Focus on cost policy, pricing of mass products

Based on Brynjolfsson, E. – Hu, Y. J. – Rahman, M. S.: Competing in the Age of Omnichannel Retailing

grated with social media may create an ecosystem where customers spend 2-5 times more than in the single-channel distribution. But how can retailers reach this? What steps must be taken in the organisation?

- If a retail business listens to the call of the time and enters the bumpy path of digitalization, it may create an ad hoc team to handle it. However, there is the danger that the digital part is too isolated from the channel management supervising the physical shops. The digitalization culture does not penetrate into the organisation and digital competences only appear in patches within the company. Meanwhile the related online market is growing at a two-digit rate.

- When after some time the company realises the problem, it instantly reorganises the processes and subordinates everything to digitalization. However, after a few months it experiences that neither the selection policy nor communication is going the way they are expected, and inventory management is performing poorly as well. The hopes now attached to growth are not realized either.

- When they tackle the issue the third time, they have to think over what the proper investments, projects are, how digital competences can be surveyed, the shortcomings overcome and the decision making authorities properly allocated.

Everything suggests that this is the most important issue of modern management literature. Experience so far shows the reorganisation and the accompanying change in culture (change management) is the primary step among a series of decisions.

The following consultants' suggestions are for enterprises wishing to create a modern retail organisation, the omni-channel model:

- Let's forget tunnel vision, the silo organisation and create the channel policy and operation that transcend organisational units.

- Let's see what is beyond organisational issues and create the new ways of work.

- Let's determine new brave objectives and plan thoroughly how they will be realized. These objectives are not only soft ambitions concerning organisational culture, but at the same time a combination of systems and tools measuring success.

The rules are needed to be known, and the right timing for the digital switch recognised. The exploration of the synergies between organisational units and functions and the degree of integration potential depend on how developed the corporate governance system and the IT system in general are, and whether there is enough capacity and talent to process the suddenly increased amount of data.

The different special literature sources are by and large on the same page concerning the successful omni-channel strategy. The Hungarian retail trade environment designates different focal points for the following set of rules. This is actually so because the development history of the Hungarian industrial branch produced different results as regards domestic vs international and small retailers vs big chains. These regulations describing the framework of modern retail trade unfortunately were not typical of the previous evolution of the trade sector either.

- A web and mobile consumer experience has to be created that is full of content, robust and ensures consistent connection to the shop experience.

- A selection policy that produces the best results in the different channels and does not lead to cannibalization should be applied.

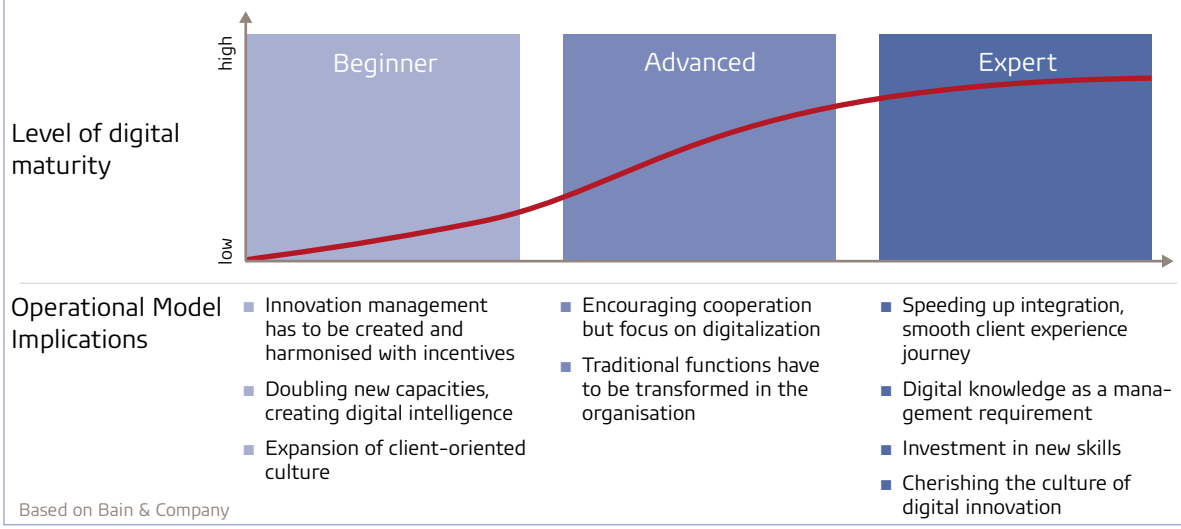
- A marketing practice that combines the tools of the traditional and new media and properly allocates the budget among the channels should be introduced. But this can only be successful and create trust if the delivery of the products is free of obstacles (in the online case).

- Integrated inventory management where the product follows the most efficient logistic path (within the chain of order processing, preparation, warehouse centres and shops) at the lowest possible cost should be developed.

- Data analysis processes that support daily decision making (as well) should be introduced.

- A technological development practice that is adapted to the business and supports cross-function operation should be developed.

Figure 2 | **Development of Digital Channels and Operational Characteristics**



Based on Bain & Company

3.3 Digitalization as Seen from Companies' Sales Processes

Obtaining new customers and new orders is the focal point of the sales process. The following part discusses some basic activities that sellers perform during the sales process, demonstrate how digitalization supports the creation of customer value and putting emphasis on the advantages of the product/service. Sellers have to perform some basic activities in order to conclude the sale successfully regardless of the type of sale and customer.

3.3.1 Fundamentals of Organising the Supply Chain

The companies that want to strengthen their competitiveness have to improve the efficiency of their sales work; it is not enough just to offer the right products at an attractive price. The opportunities provided by digitalization have to be built in every step of the sales process. The results of innovation make solutions that integrate, automatize and handle the sales activities of the company as a whole possible. Digitalization brings about the full integration of the sales process. The present sales techniques connect isolated, independently developed systems with a given activity, section or unit. This approach cannot produce a supply chain management system uniform in the whole company.

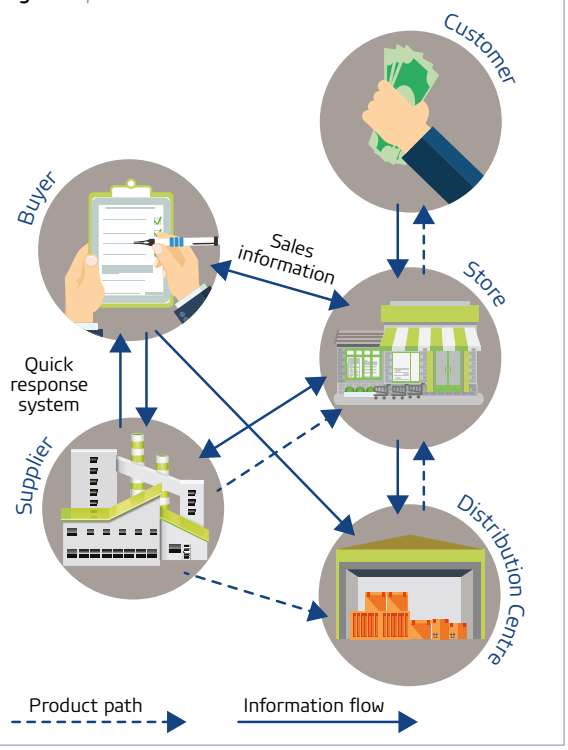
In the course of an average traditional transaction, sales people often have to consult manufacturing to find out if a given product can be configured in accordance with the specific needs, than with the customer again to see whether the solution that is offered is suitable for them, and consult with logistics whether the given product is in stock and ready to be delivered.

Retailers and sellers can only be successful in today's supply chains if they possess the IT-based applications that provide them with real-time access to up-to-date information relating to products, prices and inventory items, that is, they have real time information about the development of their sales.

The integration of sales applications with the company's internal systems, which thus accomplishes an all-round integration involving all the units, means that after the competed sales transaction the system records the sales transaction, updates the model used for estimating the demand, and changes the manufacturing and delivery assignments accordingly, updates the customer records and forwards the data to the system measuring sales performance. The schematic representation of the product and information flow can be seen in *Figure 3*.

It was Walmart and Procter and Gamble that first applied the process-oriented supply chain management, the so-called CPFR, for their transactions with each other. Companies can only be successful in this system if their sales activities are considered cross functional that intersect unit lines. The use of the RFID technology is an important IT precondition of new approach of supply chain management, which significantly decreases warehousing and distribution costs.

Figure 3 | Information and Product Flow



3.3.2 Elements of the Sales Process

The sales process is examined on the basis of the phases of the personal sales process, focusing on the opportunities provided by digitalization.

- Client acquisition and assessment
- Opening
- Presentation
- Handling of objections
- Business transaction
- Customer care

3.3.2.1 Client Acquisition and Assessment

One of the basic requirements of modern sales systems is easily obtainable market information so that the seller can assess how big and what kind of purchasing power can be expected, who their potential partners can be. This phase includes all the activities that a sales representative performs before meeting a client. These activities include the identification of potential clients, especially:

- evaluation of the financial situation,
- mapping the corporate decision making system, and
- expected demand for the offered products/services.

Different internet portals may be used to obtain this information in B2B trade. The most important financial figures that help to obtain the solvency information of a potential client can be reached at the link http://e-beszamolo.im.gov.hu. The certificates of incorporation available at the www.e-cegjegyzek.hu site provide information about the people authorised to represent the company thus making it easier to identify the management members entitled to make decisions. In addition, the Internet offers access to a lot of other types of corporate information and data.

3.3.2.2 Online Sales: Internet Contacts, Relationship Management

The level of opening depends on the consumer and the market. If the sale is of B2B type, the seller needs to have all the necessary documents that simply present the technical details and advantages. If the sale is of a product of high value with a loan behind it, knowledge of the client's financial background is necessary as well. The knowledge of the right time, place and process becomes important if, for example, the sale is to top managers or CEOs. It is indispensable for the sales representative to know all the parameters of the product/service they offer, and they should have information about the organisation they are employed by.

The seller delivers a purposefully compiled content to the customers of the company in the course of Internet contacts. Companies need to ensure that the online experience they provide is impeccable in a convenient, helpful and reliable environment. The web site has to be developed in accordance with this: increasing and converting turnover into cash (external functions); eliminating illogicality within the company (internal functions); developing communication and transactional platforms. Pages that provide comprehensive knowledge have appeared, where all ways of communication can be found: free email, a forum channel and up-to-date valid content.

3.3.2.3 Configurational Parts of the Sales Presentation

A precondition of complicated order processes related to custom-made products is configuration. Customer needs must be surveyed, questions related to the configuration of the product must be answered from the preparation of the quotation

to the manufacturing and delivery of the product. Customers may create custom-made orders from an already wide selection of products in this way. Companies can prepare complicated offers for customers using the help of quoting software. The quoting applications have the following characteristics:

Interactive needs analysis. Sales representatives and customers may communicate the buying aspects and the requirements related to the solutions with the help of this characteristic. One of the best examples of it is the so-called augmented reality (AR) technology, which will probably change the shopping experience for good.

Contrary to virtual reality (VR), augmented reality does not stop us from sensing our own environment, retailers can create complete interaction between products and consumers.

A good example of augmented reality is IKEA's "IKEA Place" application launched in 2017 (first for the iOS 11 operating system), with the use of which customers can design a room for their homes online, actually testing the furniture and household products. IKEA Place makes it possible for its users to choose from approximately 2,000 types of products from the company's selection, as well as to save videos and pictures of their digital rooms. Future customers, for example, take a picture of their rooms then choose a product from the digitally saved online catalogue and place it in the picture. Welcome to the brand new IKEA 2018 catalogue. The 3D application is already available in Hungary as well.

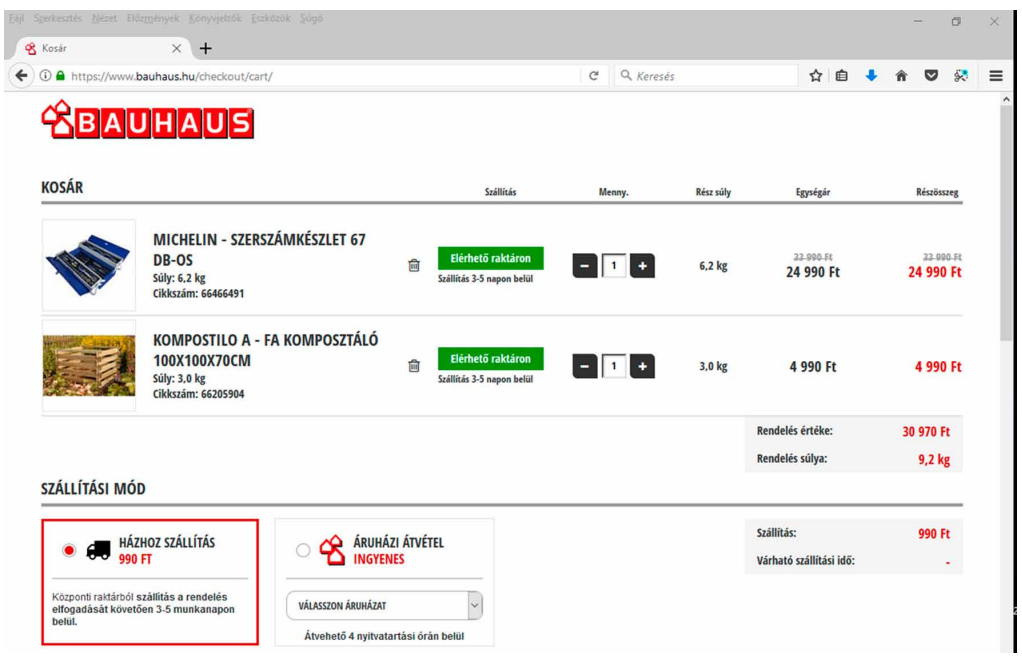
It is an expected service in the course of shopping in web shops that sellers make their offers from their sales portfolio; they add the necessary parts, deduct the applicable discounts, choose the currency, calculate the extra costs or reductions arising from the geographical distance and add the shipping and packaging costs. *Figure 4* show an example of how to calculate basket value.

A new configuration tool has been developed to solve the problems of pricing. The tools used for configuring and updating pricing help companies to introduce, manage and use a complicated structure of prices and discounts in the distribution channel.

3.3.2.4 Sales and Customer Relations

After-purchase activities start after the successful completion of the sales process. This phase includes the delivery, installation (if necessary) of the product/service, the detailed description of its characteristics and finally the collection of the price of the service/product. This phase may include after-purchase servicing as well. The primary

Figure 4 | **Basket Value Calculation**



objective of this phase is to win the customer's loyalty so that they become regular customers of the brand/product.

As it was already mentioned above, some stages of this level may be performed by the company itself such as the delivery and installation of the product, or may use the help of retailers.

Sales services and servicing play an important role in winning the loyalty of customers. This can simply be solved by redirecting purchase problems to telephone lines or personal problem solving. Aftercare processes may include training customers to use the product as well in the case of B2B businesses. A good example of it is LEGO's online installation guide *(Figure 5)*.

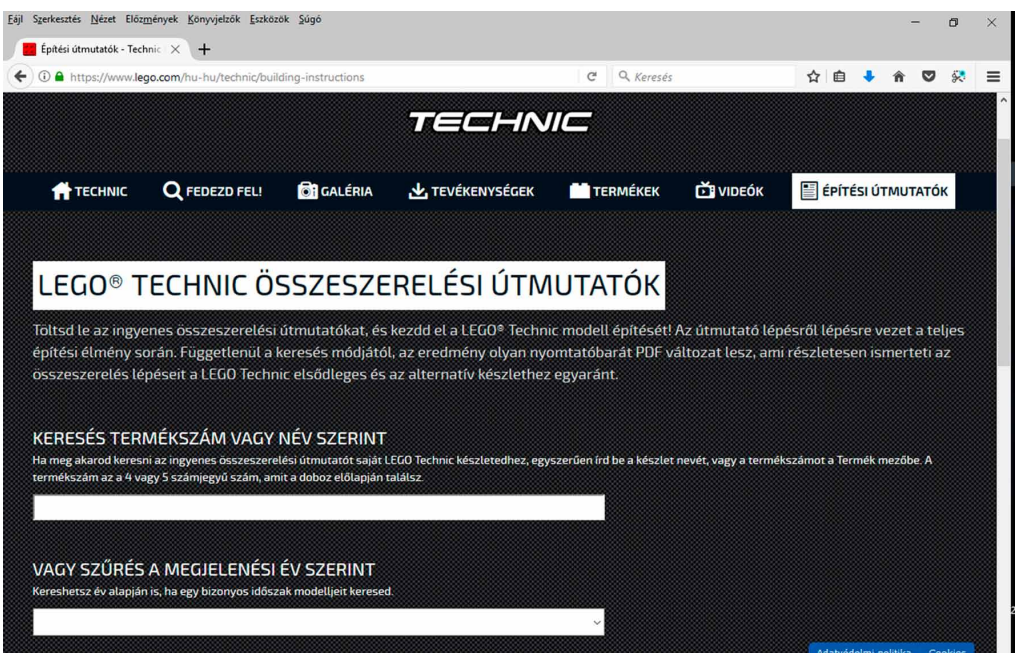
CRM is a part of the systematic restructuring that took place in the structures and strategies of companies at the end of the 20th century.

CRM is a way of planning structures and systems; the company provides customers with what they want (profitability), and not with products the company thinks they may want. This mainly includes the rearrangement of the company's information technology system and the reorganisation of the staff. The technique called "warehousing" has a big role in CRM, and it includes the fact that the information from the different units of the company related to the customer are combined into an integrated database. Data warehousing makes it possible for retailers to search for all the transactions connected to a given client, and it is enough to enter the name of the client into a central computer.

CRM is essentially about the fact that retailers develop a structure and system which pulls down the walls within the company so that they can concentrate on clients. In absence of such a system, several units of the same company may contact a client with different, even contradicting offers.

The fact that keen competition forces companies to pay attention was the realisation that the small margin from the sales of different products is not the best way of facilitating long-term cooperation.

Figure 5 | **Consultancy**



4 THE DIGITAL CUSTOMER

4.1 Digitalization Trends in Trade – from Customers' Point of View

So far, digitalization has been discussed through the changes of corporate functions and processes. However, it is not modern trade in itself. Even as early as the sixties – the Hungarian period of programming – there was a study that placed computer science in the centre of improving the efficiency of supply chains. However, it has remained a background technological process hidden from customers until quite recently. All kinds of innovations have undoubtedly resulted in performance improvement, yet its advantages have not become known to those at the end of the distribution line. Even the RFID technology, which was announced as a significant novelty, has had controversial reception among consumers.

Real digitalization takes place in customers' interest (as well), not only in the retailer-supplier relationship. The mobile Internet tools (telephones, tablets) are at the back of this process. Smart phones have simply rewritten shopping patterns. It is not the Internet in itself that has rewritten the former rules, but the techniques facilitating mobility. The tools built in mobile phones and the installed applications read the article identification numbers and ensure instant price and reference comparisons, search for products not found in the shop, optimise customer reach by global positioning and replace cash turnover. The developments aiming at this are growing at such a rate that the special literature prefers to use the term digitalization to digital commerce. This distinction suggests that this is a never ending, continuously developing phenomenon and not finished technological development.

Digitalization profoundly reassesses trade barter transactions. It modifies the forms and contents of communication channels, the nature of transactions as well as the transportation chain. A clear example of communication with customers is the transformation of loyalty programmes into digital coupons, or the inclusion of price comparison sites. Digital transactions are the area where the most spectacular development is expected. Mobile payment is convenient, but not a disruptive piece of technology. Neither are self-checkouts. However, when the system identifies the customers entering the shop via the application installed on their mobiles, who then take the products off the shelves and walk out of the shop without having to queue, that is a revolutionary solution. Not because of the technology that is used, but as regards shopping experience. Elements of the solution are already there, tests are being made, and it is almost sure that their spread will begin in five to seven years.

Smart logistic solutions also make delivery to clients outdated, but penetration of 3D printing within the B2C community will markedly shape this branch of distribution as well (in 10–15 years).

As regards the players of the supply chain, there will be significant modifications in the way the roles, tasks and spheres of activity are perceived. Experts researching the topic no longer speak of individualization but "dividualization" of customers, which illustrates digital life is building into consumers-customers everyday lives. The combination of people-data-things reflects a little dull approach to the value chain, but it is definitely suitable to cast light on the (independent) importance of the existence of customer data and information in the organisation. Consumers have taken up a new role as well, because they overstep their former boundaries in many cases and they make the payment, delivery or even design the product themselves. The so-called prosumer phenomenon is not new, but it reaches a higher level with the function integrated into the value chain. In this way the information asymmetry between the different sectors of the distribution chain may greatly diminish.

IoT (Internet of Things), the hyperconnection of machines and tools at a household level offers a promising future. Refrigerators that handle the household's cold food management through an Internet connection have been on the agenda for years. However, since it was an isolated tool, it could not really succeed. Its use will gain a new meaning in the omni-channel model. The increase in the points of contact will add to it. New places suitable for picking up the products will appear in the supply chain. No ability to foresee the future is needed to suggest that these points of contact (between the client and the distributor) will not merely be physical locations in the future. A pick-up point, a collection point will also be suitable for further offers and increasing customer experience, especially when the digital tools provide attractive contents. Retailers should find new paths on the supply side anyway.

The online platform makes it possible that even products in low demand due to the costs of the shop environment, that is, stock keeping, can reach

customers. To a certain extent, the boundaries between products and services will become indistinct in the supply as well.

Disruptive Technologies – in the Interest of Customers

When one tyre of a car is replaced, it will not go better for that. When two are replaced, the performance of the vehicle will probably improve. If all four old, worn tyres are replaced with new ones, we will have a new experience. The same happens in the trade supply chain as well. It is useful to replace some loops of the chain, but it is not enough. The supply chain will become a real value chain if all of its elements are transformed. Especially because, as a matter of fact, everything is done for the customer at the end of the process. If innovation only manifests itself in the manufacturing process, it will considerably reduce costs or make the product environmentally friendly. Consequently, its usefulness is clear.

However, when the technology is not only available to manufacturers, but also to end users, the so far – strongly hierarchical – relations of the players of distribution will be modified. Dependence will significantly lessen, the influence – impact – reaction will become two-way. The retail technologies that create new things can only succeed fully if they reach customers.

We are already beginning to understand what the legendary leader of General Electric, Jeff Immelt meant when he said: "If you went to bed last night as an industrial company, you're going to wake up this morning as a software and analytics company."

This is the corporate perspective. But is it true of the shopping universe as well? Will we wake up as digital consumers? And what do retailers do for this? Surveys of the industry give evidence that most still stay away from disruptive technological investments. They are followed by the group of hesitants-those who wait it out, and the proactive group only form a minority. This is true of the American market. The Hungarian environment shows that companies have more or less introduced the corporate governance systems and their subsystems. The players of the trade sector have invested a lot in the development of their information systems in the last 10-15 years. But the new shopper experience, the creation of the integrated (shop and online) platform is yet to come. It will not be simple to tackle all this for the industry, but there is no other choice. It is worth continuously following the international trends, but servile imitation is unadvisable due to the sectorial fundaments. It will be a series of reasoned decisions, and the approach of taking small steps is advised to companies without previous experience, especially those with no international background. It is also sure that a lot of bad decisions will be made, however, they cannot be avoided. Retail trade is on a path it is forced to take, because the tech companies have let the genie out of the bottle. The GAFA group (Google, Apple, Facebook, Amazon) has created a new economic model and given customers a series of technical tools as well as abilities and knowledge.

In this race retailers rode with a loose rein. The power that was concentrated either in the hands of the manufactures, or those of distributors in the last two decades, has become weaker by now and customers have partly taken it over. Retailers have lost – at least partially – control of the supply chain. In order for the control based on inclusion-participation to be the privilege of retailers, they will have to employ a series of continuous and disruptive technologies in the future. A brief summary of the things to be done is that the players experienced in shop retail trade will have to acquire the knowledge, innovation skills and flexible business thinking of the tech world of online players. At the same time, the players of the virtual retail world will have to create the familiar atmosphere of the shop environment. Physical shops – even though this may seem unusual in today's online hype – have several advantages over online ones. The way the products are presented and the encouraging atmosphere (to buy) of the social space are such examples. Another benefit of the shop environment is that it has a view of a considerable part of the purchase journey, is aware of the different moves of the purchase behaviour. Online shopping is more purposeful compared to it, and cannot open up the experience so much for the time being. The relevant special literature mentions the therapeutic function of the shop (physical) environment, which experts working in the practical world think of less. Holding, touching different products is capable of taking the edge off the lack of things existing elsewhere, this is why the role of the surroundings is important in in-store marketing. The shop staff – despite the current problems – continues to have a prominent role, but significant steps have been taken in this respect in the online world as well. The task here is to imitate the physical presenta-

tion of the products and optimise the selection. The above mentioned help from shop assistants has a new role: a person with an attentive, curator role. Their role is less of direct sales but rather advisory, guiding (and this is the direction in physical shops as well). The French Sephora – on the basis of research – introduced a mobile sales assistant application, because they found that their customers use other channels to gather information, experience instead of turning to shop assistants. In addition to providing the necessary information, the application also offers new products.

This form of technology is not an investment that requires considerable sums, it is rather an intelligent application.

Online/digital retailers cannot leave the social and emotional aspects of the shop environment out of consideration. Show-rooms are not for on the spot sales, only mark a stage in the shopping continuum. Interestingly enough, this approach and the integration of offline-online even more so may lead to the shrinking of the selling area – analysists of the industry think. Coming closer together and shaping the different channels, concepts into a common platform is the future of retail trade. The technological novelties have to be obvious to customers as well. This is how the supply chain will reach its full value.

4.2 Consumer Values Being Transformed

In the present shopping environment, the digital consumer is a person who basically uses the different information gathering channels simultaneously in a way that they complement one another, that is, in addition to the personal, traditional ways of information gathering (offline advertisements, POS information, impressions, personal information gathering etc.), they actively use the online ways as well. The first information point is most often the Internet, and they use it both in a passive (reception of online advertisements, publications) and active way (targeted searches, comparison of selections and/or prices, consumer opinions etc.).

They mostly flexibly switch between the different channels, the Internet–personal visit–online shopping customer journey or even its reverse order is not uncommon.

According to expert opinions, personal and social values significantly influence human behaviour, consumer behaviour as well. A close relationship can be seen between the prevailing values and customer behaviour (choice of products and brands). It can be experienced in Hungary (and the whole region) that the role of consumption has significantly strengthened in recent years, which is true even if researches show that price is usually the most important criterion in Hungarian consumers' purchase decisions.

In the long run, Hungarian consumer behaviour, including value-based consumer decision making, will probably become similar to the international trends of developed countries. For the time being, the driving force of e-commerce worldwide is price and convenience, and only a low – although increasing – proportion of consumers seek more, for example unique products that cannot be found in the selection of big retail chains. By 2026, both the shopping experience and consumer values will have drastically changed according to the forecast of Ovum, a research and consultancy firm specialising primarily in digital services and consumption (Ovum: The Future of E-commerce: The Road to 2026).

Continuous Availability

For today's Y generation, the generation of "digital natives" who were already born into and are growing up with digital technology, online space equals daily existence. Continuous 24/7 online connection to the world is natural for them, and the constant availability of digital commerce, shopping opportunities without any delay or waiting will be an expectation on their part.

At the same time, shopping experience will be about more than just speed; proactive customer support, free (or very cheap) delivery anytime and anywhere will be a part of it.

The products advertised in web shops and online will have to meet consumers' expectations in every respect.

Augmented Reality (AR)

The shopping experience will become such a basic expectation that will appear in both the physical and online shopping environment, and basically built on the opportunities provided by augmented reality. The already available applications belong here, for example additional information appears on the screens of mobile phones about the shops

or products that their cameras capture (e.g. opening hours, product information etc.). Companies are expected to use it actively in the field of brand building as well.

According to forecasts, augmented reality, that is, complementing the existing, actual elements with virtual information (pictures etc.) will mean the highest level of shopping experience known today, as a result, the importance of AR will exceed that of virtual reality. This also supports the finding seen at other areas as well, that is, that the cooperation of offline and online approaches will not diverge but integrate in trade.

Customers' Active Self-representation

Consumers actively combine their shopping experience with their self-representation activities in social space. The trend of sharing posts and pictures of themselves on the big social media platforms (Facebook, Instagram etc.) has reached real time video sharing by now (Mark Zuckerberg: "In five years, most of [Facebook] will be video" which will be supplemented by the active inclusion of the shopping experience. This means that shopping as a free time activity will be equal to other entertainment activities.

This will be advantageous for retailers as well, so they will support it in different ways (for example through promotions, which is already a practice now) so that their own shop or products are shared in the most advantageous possible context on as many social platforms as possible.

New Complexity of Shopping

The presently – more or less – linear customer journey will become almost incomprehensibly complex due to the complexity of mobile technology. A part of it is the complete linking up of personal and household smart devices, continuous online presence, information mobility. The customer journey will be almost inseparably linked in the physical and online space because of them, potential customers will enter and leave the different spaces often simultaneously handling the different dimensions and channels.

Accomplishment of Collaborative Consumption

Collaborative consumption based on sharing, that is, sales outside of the official sales system is booming. Examples of it are Airbnb, Uber or even the different car sharing services. Their success is due to cost efficient, flexible and fast solutions, and the demolition of traditional value chains will presumably continue, the alternation of suppler-consumer roles will be an impression of postmodern social attitude. What has taken place in the information process through web 2.0 (information consumers became information suppliers in comments, blogs, through the social media) will take place through collaborative consumption with the same efficiency, that is, consumers will turn into sellers as well simultaneously with their own consumption. Its base is digital technological solutions as well as the continuous online presence of the players (both sellers and consumers).

Shopping, Consumption Personalization

The availability of large amounts of consumer data (consumer characteristics, habits, personal, demographic data, consumer behaviour etc.) and its integration into the retail process may considerably personalize the shopping process. This presupposes professional CRM activity on retailers' part, which is already improving.

At the same time, cost efficiency as well as distrust on consumers' side of this level of use of their personal data limit the degree of personalization in the case of certain products.

Finding their new place and role in this chain will be a challenge for retail trade.

4.3 Process of Customer Decisions in the Digital Space

The role of digitalization can perhaps be the most easily traced when customer decisions are analysed. In addition to price and convenience, (saving) time plays the main role. Consumers would like to make their decisions without time and spatial restrictions, at the same time, they would like to make their decisions easier through help with the often confusingly wide selection. Consumers wish for friendly and expert advice, they collect information before making their decisions, selectively choose and evaluate things. The following section will examine the different steps of the decision making process, and the opportunities and support digitalization can provide.

4.3.1 Recognizing the Needs

It is typically requested, collected or unrequested data and information that make up the starting point of customer decisions. Before their purchase decision, consumers make the objective of all the data and information collection clear, as well as the contents and course of all the further work phases that follow afterwards. The absence of this may often result in unusable basic data, wrong information, which then may lead to rush customer decisions resulting in serious financial damage.

The fact when, where and how a consumer need becomes effective demand is basically determined by the amount and quality of information poured on customers. Consumers will sooner or later lose their anonymity and then become targets of promotional campaigns. After they have obtained and used a customer card, retailers get a picture of what and when should be recommended. By obtaining a club or loyalty card, customers are given the opportunity to receive offers, for example, in text messages about – among other things – private label products or branded products, services provided for customers.

Potential customers typically distinguish four types of criteria, and make their decisions on the basis of them.

1. Territorial: The territorial criterion means geographical (for example the location of the nearest shop) limitation.

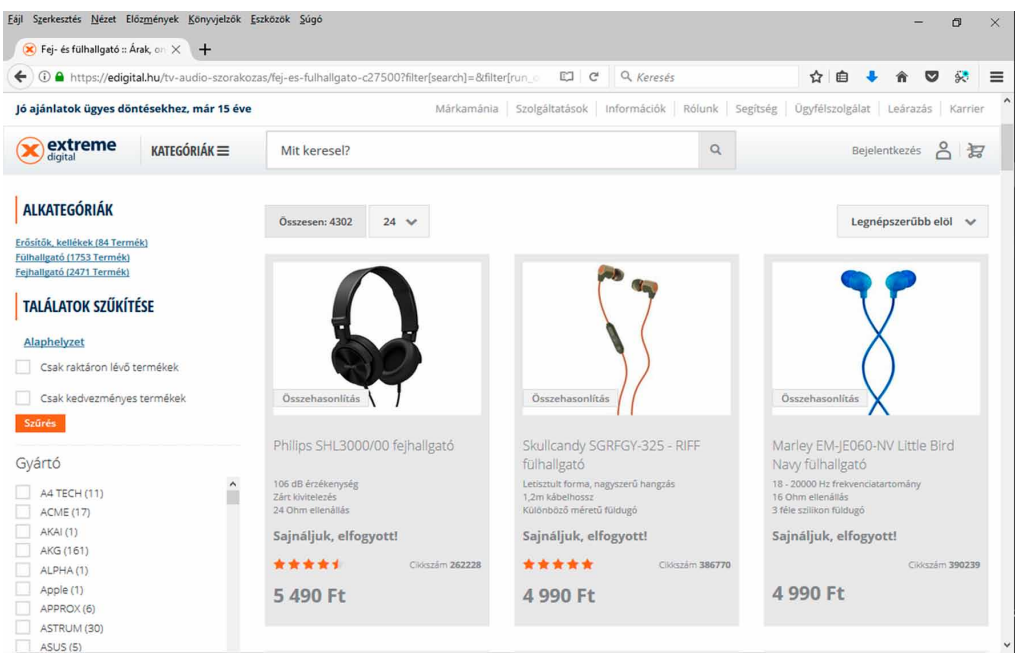
2. Time: It means time or duration (for example when the product reach can the customer the earliest).

3. Quality: The quality phenomenon (classification phenomenon) is some kind of quality reference to the product or service (for example, if it is delivered, whether there is warranty).

4. Quantity: The quantitative phenomenon (measured characteristics, quantitative variables) typically refers to the price of the product or service, or the payment conditions (for example, what the lowest price is).

Electronic product catalogues *(Figure 6)* are important tools of online sale, they are actually intelligent electronic product lists that provide sales people and customers with access to the latest product and service information, leaflets, pictures of the company as well as data concerning pricing and inventory. Managers responsible for the products update the product information in the database, and instantly inform all the units of the company about the changes.

Figure 6 | **Electronic Product Catalogue**



4.3.2 Evaluation of Shopping Options

Evaluation of the options is the second step. Customers see different competing products, solutions during the purchase process. Different customers make their decisions on the basis of different sets of criteria. Here are a few examples of how information applications made available by digitalization play a role:

Price – Price is the main purchase criterion for many customers. Customers chose cheaper products over more expensive ones. This is more typical of daily mass products with more price elasticity (commodities) than of luxury items. The decision about price maybe based on selection, that is, the customer buys the cheapest product. Several Internet applications help with the decision, such as http://www.argep.hu *(Figure 7)*.

Quality – Customers seek products of the highest quality, and often they do not mind paying more for them. The meaning of quality is different by customer and product, most of the time it is not possible to objectively define quality. There are customers to whom quality means durability or better design, or even a better service network, but downloading a song reflects individual taste. A lot of customers link quality to brands. It is the sellers job to know what quality means to their customers, and its communication may be a kind of reference point, but customers more and more often turn to communities whose members have already gained some experience with the product or service. One of the most popular web sites in Hungary helping customers with information is the blog called Tékozló Homár.

Consumer protection publications, Internet publications are becoming more and more popular, they mostly publish test results. Product-level information can also be found in Hungary at the http://fogyasztovedelem.kormany.hu site such as product safety considerations, but customers can access there a list of products inspected in the course of product comparison tests.

4.3.3 Purchase Decision

As the third step, the customer makes the purchase decision. The main objective here is to complete the purchase conveniently and with no problems, coming across no or as few obstacles as possible. Customers evaluate criteria like time at this stage, that is, the amount of time necessary to order, when the product is received or when it has to be paid for. Convenience may also be an important criterion, for example, they may not want to leave their home, or should be able to place the order on a bus, train going to or coming from work. The shop or its accessi-

Figure 7 | **Price Comparison**

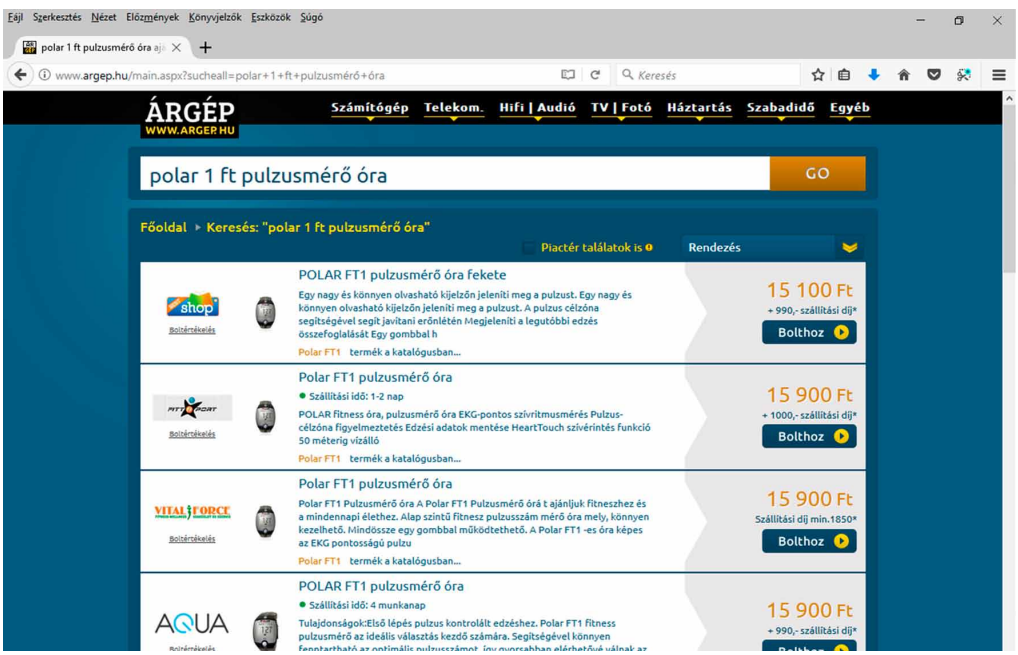
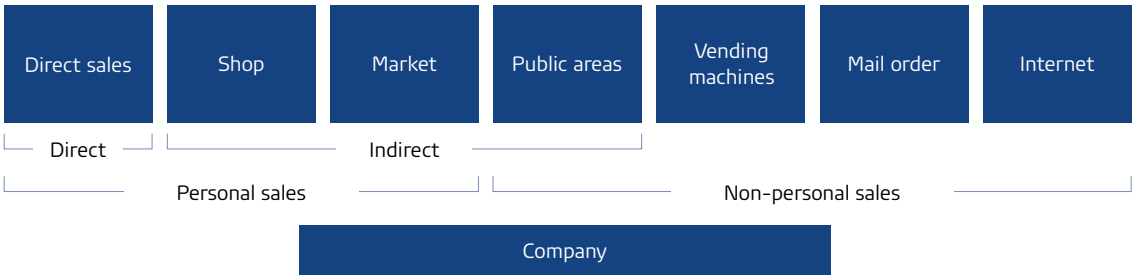


Figure 8 | **Customer Relations Channels**



bility does not only mean considering the distance, but is also influenced by access to transportation or a delivery vehicle.

Customers may decide to take every step of the purchase process in the shop. Everything from selection to payment at the checkout happens in the shop with more or less help from shop assistants. All this takes place within the framework of the traditional sales process.

Customers may also decide to use the opportunities offered by the so-called multi-channel sales model. They choose the product to be bought on the Internet, however, they would like to touch the chosen product before buying it, experience its colour, smell or even weight personally.

When the steps of the purchase process take place through the integration of sales opportunities marked in *Figure 9*, then it is the so-called omni-channel sale-purchase system. A good example of it is the Click & Collect service introduced by Decathlon. Customers can browse the products of the shop on a touch screen display found in shops, and choose in which store they wish to buy it. They can pay for the product from home, and following the completion of the order they are informed about the expected delivery time of the package.

4.3.4 Evaluating the Purchase Process and Its Results

The good or bad opinions formed during the purchase do not only help to acquire new customers or prevent getting any, but they also influence the scope of the retailer's regular customer base. One of the main business objectives of commercial companies is to expand the scope of their repeat customers. It can be seen as a result of sharing shopping experiences, publishing them on online

Figure 9 | **Decathlon Click&Collect**

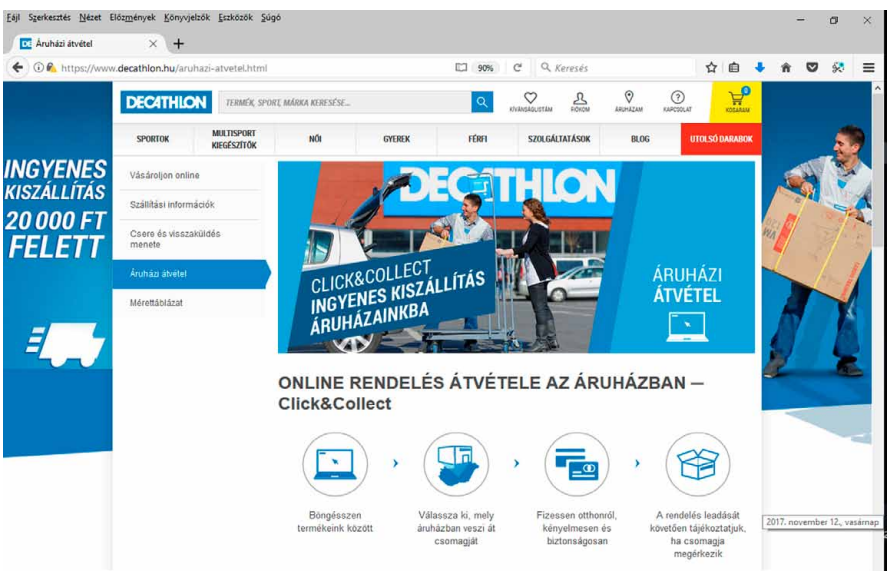
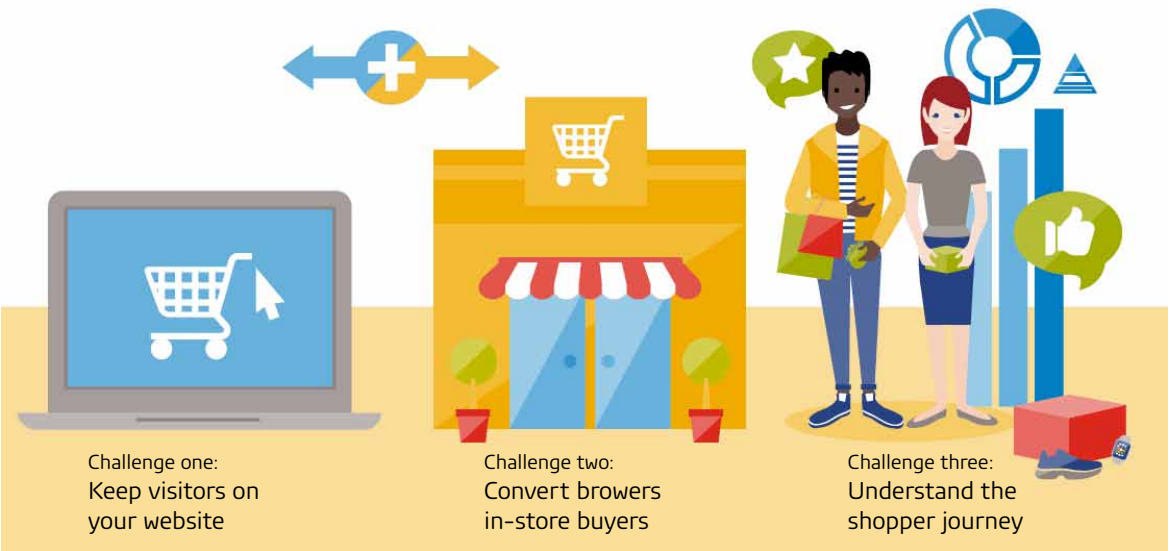


Figure 10 | **Solving the problem of conversions**



Source: Marco Wolters: Solving the conversion challenge

networks that the so-called word of mouth (WOM) phenomenon has very strong influence on opinions. The biggest opinion sharing social media sites are usually independent, but the opinion sharing interfaces on the portals of leading online retailers also have a significant role. One such example is the e-bay community, where there is a separate tag for sharing negative opinions. It is an existing practice in Hungary that companies provide the addresses of their supervisory authorities for reporting possible complaints, but this of course is not interactive communication.

4.4 Digital Shopping Experience

Not including the food industry, where different characteristics apply, one of the biggest challenges for retailers is how to convert people browsing on the net into customers. The objective is to win over a new customer segment and to stop competitors from acquiring clients.

The most important objective is to keep visitors on the site, since this is the first step of the digital shopping experience. It does not matter what the purpose of the visit was (intent to buy, comparison of prices or checking the selection etc.), the task is to keep them there and prevent them from visiting competitor sites.

Converting retailers' sites to web shops offers several opportunities, among other things, in the area of bundled services:

- possibility of COD payment, that is, upon delivery they can check the product and only finalize the purchase if the product is really good and they like it;
- speed in the case of possible returns, that is, money is refunded before the product is returned;
- discount in case bank card payment is used;
- high level of customer register and its active management: for example in the case of the clothes industry offering new sizes depending on the age (children);
- dynamic web site functions, for example product search and price comparison functions, hot links to manufacturer pages;
- plannec pricing strategy since even one HUF is important on online price comparison sites due to the automated order;
- active e-newsletter and e-marketing activities;
- e-fitting room: this is not widespread even in big clothes shops in Hungary, at the same time, it has been realised that it may be a significant service in the future.

Another solution to be applied is connecting the physical shop environment to digital space.

A presently used form of it is the Click & Collect method, which means that customers order (reserve) the product online and then personally collect it at the retailer. A more sophisticated form may be when the shop-based purchase is connected to previous registration. This is Amazon's practice, but the use of NFC-enabled phones is a part of it, as well as the introduction of other identification systems (QR code) that make payment through phones possible. The significance is not only in the simple and fast payment but also in the identification and recording of customers and their buying habits.

If the selection is not suitable within a shop, it has to be ensured that interested customers may order the desired products online on the spot. Mobile devices have to be supplied for this through which they may place their orders and free delivery has to be ensured as well.

Hungarian consumers are nearly at the same level of digitalisation as the European average. Their infrastructural disadvantage – where exists – is not significant. The proportion of Internet users in the 16–74 years old age group is only three percentage points below the European average *(Table 7),* at the same time, it is worth taking a look at the development level of some of the Central European countries as well. The Czech Republic is at 82, Slovakia 80, Austria 84 per cent as regards the proportion of Internet use, which significantly impacts competitiveness as well, while Slovenia and Croatia are approximately at Hungary's level.

Table 7 | **Internet Users and Those Using the Internet for Shopping Aged 16–74 (%)**

	2012	2013	2014	2015	2016
Internet Users					
EU 28	73	75	78	79	82
Hungary	70	72	76	73	79
Using the Internet for Shopping					
EU 28	44	47	50	53	55
Hungary	25	29	33	36	39

Source: Eurostat

Knowledge as a "soft" resource also appears among the preconditions of Internet use. As regards the general level of qualifications, Hungary is nearing the European Union's average, 27% of people have the necessary basic knowledge to find their way on the Internet, in the digital world.

5 WHERE ARE HUNGARIAN CONSUMERS POSITIONED IN THE DIGITALIZATION PROCESS COMPARED TO THE REST OF THE WORLD?

5.1 Internet Use on Fixed and Mobile Tools

According to statistical figures from KSH (Central Statistical Office, Hungary), the proportion of regular Internet users in Hungary (in the 16–74 years old age group, Internet use at least once a week during the three months preceding the survey on average) was 78% in 2016, which is practically identical to the EU average (79%), however, behind the Western European use (Austria: 82%, France: 82%, Germany: 87%, Denmark: 94%).

According to GfK's 2017 survey entitled Digital Connected Consumer (DCC), an average Hungarian Internet user (aged 15 to 59) spends 3.5 hours on the net daily. On the whole, Hungarians mostly use the Internet for e-mailing (97% of users), however, the biggest part of the daily use is made up by visits to social media sites (65%).

When compared to the previous year, the biggest development can be seen in the cases of online banking (32% --> 40%) and online shopping (19% -->25%).

The proportion of those using the Internet on mobile devices (telephones, tablets) is continuously growing. While only 39% used the Internet to a significant extent through mobile devices last year, it is 47% in 2017 (on the whole, 7 in 10 Internet users use their smart phones for this). Less than a quarter of respondents (23%) use only fixed devices. As a result, surfing the net is not a stationary activity any more in Hungary, and this trend is continuing, which further supports the spread of digital consumption.

Chatting has the highest share of the Internet use on mobile devices (67% of respondents), and Hungarians also use them to make online calls (61%) and for visits to social media sites (56%).

Hungarians spend more time watching different videos (music clips, series, films etc.) than in 2016 (153 minutes/day --> 168 minutes/day), which supports the growth of importance of (motion) picture based information collection, however, on the device side, the use of television sets has already fallen below 50%. The proportion of desktop devices is falling as well, while that of portable devices (laptops, phones, tablets) is continuously on the rise.

Members of the Z generation use television sets for watching films in less than 25% of the cases, while portable devices in over 60% of the cases.

Twenty per cent of respondents use mobile devices to visit web shops, the same proportion to compare prices online, while 19% for actual online shopping. This latter proportion has increased significantly, by 10 percentage points, compared to 2016, which is the highest increase rate following online television watching (an 11 percentage point increase).

Internet use basically includes the following activities:

- shopping, transactions (web shops, price comparison, online banking);
- communication (e-mailing, chatting, social media platforms);
- creating own content (uploading own video, creating blogs), and
- entertainment, information gathering (reading news, online games).

An interesting fact is that while the proportion of wired Internet services has been the same for years (86%), and the proportion of mobile Internet (sticks) is slightly decreasing, the proportion of Internet shared on mobile devices is continuously growing, and now is near the level of wired Internet use (73%). This is also a good indication of the spread of digital mobility.

The preferred Internet connection on mobile devices is still the Wi-Fi, at the same time, the proportion who exclusively uses the Wi-Fi has somewhat decreased to the advantage of mobile network internet connections.

The download of smart phone applications is continuously falling, for the time being, the majority downloads new applications only occasionally. This means that the majority of users have become acquainted with and selected their necessary applications. The most often used applications are Facebook, weather sites, emailing clients, navigation and video sharing (e.g. YouTube). Of the applications used for transactions, the popularity of applications managing banking as well of those facilitating electronic payments has grown, how-

ever, surprisingly, the use of the mobile applications of online shops has decreased compared to last year (23% --> 21%).

Of the mobile devices, the use of tablets is not yet widespread, the majority do not own a tablet, although their proportion is continuously falling.

The global trends for the next years can be summarised as follows (Ovum: The Future of E-commerce: The Road to 2026):

Mobil devices are already the most important platform for digital contents and communication. The market share of smart phones is continuously growing at the expense of traditional phones, the market of the latter will have shrunk to a minimum size by 2020. This will not only help Internet use, but also the spread of m-commerce. Since most retailers already optimise their sites for mobile devices, mobile devices can and will handle the whole of the customer journey.

Mobile devices make the continuous real-time determination and tracking of customers' location possible, which will transform the whole commerce process, which is difficult to imagine at the moment: let us just consider the targeted marketing activities tracking our physical-geographical location, or even – the presently distant idea of – deliveries to our actual location, product support, personalised selection etc.

Payments made through mobile devices will considerably increase in the next five years, the number of payments made through mobile devices will increase nearly fivefold between 2014 and 2019 (450 million --> 2 billion users) worldwide.

The platform of customer loyalty programmes and promotions will also migrate to mobile devices. An advantage of it is the possible continuous interaction, a level of consumer commitment and involvement that previous programmes could not achieve. This can be extended by gamification, which is a social trend, and a lot more active community life can be organised around it than before (now).

The value of mobile advertisements will have exceeded USD63 billion by 2019, which is the treble of the USD22 billion amount of 2014. The contents and forms of mobile advertisements will also be transformed; possible new solutions may be, for example, the presently already used "application advertisements," which will significantly increase.

As a result, the future of retailing will primarily and greatly be determined by digital mobility, and similarly to the reinterpretation of social mobility (e.g. atypical work, telework, mobile place of work), it will make consumer mobility possible.

5.2 Online Purchases

Nearly 90% of Internet users have already bought something online, but only a third of them (34%) are regular (monthly) online customers. The majority choose online payment. The typical online customers who pays online is an employed male of 30–39 years of age, has a college or university degree, lives in Budapest and has a high income.

The majority (38% of Internet users) buy travel services (excluding airline tickets!), but the purchase of theatre and cinema tickets (32%) and ordering books (31%) are also significant.

The lowest, 4%, is the proportion of those who order food and beverages online.

The structure of purchased products has practically not or hardly changed in the last two years, however, it is the amount of entertainment electronic products (+5%), mobile phone subscriptions (+5%), airline tickets (+5%), banking products (+4%) and online insurance policies (+5%) whose proportions have grown the most.

The shift between offline–online shopping habits can mostly be seen in the cases of airline tickets (62%) and travel services (60%).

Online shops are the most commonly used ways of Internet shopping (65% of Internet users), the buying frequency is continuously growing here, a quarter of respondents have bought something several times on such a site.

The proportion of those using price comparison sites has increased from 41% to 47% (13% of them have used them several times), which is in accordance with the price-oriented consumer values typical of e-commerce. However, the use of auction sites is continuously falling.

The typical method of payment in Hungary is still cash (93% pay cash as well), but the proportion of those using bank cards is on a continuous increase as well (78%). The highest increase can be seen in the proportion of contactless payments (Paypass, PayWave) (59% --> 66%).

The popularity of mobile payment tools is also growing, the proportion of its users has increased from 27% to 33% on the whole. The fastest increase is seen in the number of those using electronic wallets (15% --> 21%).

Confidence in electronic payment methods is on the increase. The frequent use of online bank cards enjoys relatively low confidence, however, while the trust is high in electronic wallets, few people use them.

The proportion of those who buy something on foreign sites is gradually increasing among online shoppers. Their proportion has increased from 40% to 43% compared to last year. Their proportion reaches 60% among the younger, 15–29-year-old group.

As regards the composition of online shoppers, the proportion of males is higher, and it is the 30–39-year-old age group that most often buy something (ahead of even the 15–29-year-old group). Similarly, the proportions of those with a college or university degree, higher status and Budapest residents is also higher. However, an interesting figure is that a higher proportion of people living in small settlements buy something online than people from county seats or other country towns. This also shows that there are no significant differences as regards the settlement structure, which may open doors to the new forms of digital commerce in Hungary as well, such as the model that delivers the products after online orders instead of opening physical shops.

Customers have bought something online three times on average in the last three months and spent about HUF 20,000. Its distribution is very balanced, only the young (15-29-year-old) group was significantly lower.

Free delivery was the strongest incentive of the factors encouraging people to shop online (72%), followed by the different seasonal or holiday-related discounts. Regular customers are more attracted by mobile payment options than the average. Interestingly enough, attractive consumer credit was not among the motivating factors.

When online and offline shopping was compared, online shoppers think the Internet is a cheap place for shopping, money can be saved (50%), shopping is easier (36%), it is fast to do the shopping (33%) and the selection is better (27%).

According to people preferring offline shopping, it is important to personally see the product (58%), they can sooner get the product as opposed to slow delivery (42%), returns in case of a complaint is simpler (31%), and the force of habit was also an important criterion (26%).

At the same time, the pleasure of shopping was a motivating factor only for 15% supporting personal shopping.

The often opposing opinions about the same category (e.g. slow-fast, simple etc.) probably arise from the limited amount of personal experience with online shopping (they generalize from few cases, so single impressions are disproportionately overrated).

It is definitely interesting that online shoppers more often visit traditional shops than non-online shoppers who use the Internet. They more actively visit fast food restaurants, consumer electronic shops, sports shops than average. Online shoppers visit plazas more often as well, where a higher than average proportion of them collect products ordered online, but the use of services and visits to the cinema are also significantly higher among them. This supports the trend that the used omni-channel strategy is the usual and excepted among digital consumers as well.

It may be useful information for retailers and distributors basing their business on digital consumption that online customers report a decreasing trend of shop or brand loyalty, because online platforms make it a lot more efficient than ever before for them to find the product with the best value for their money. The number of traditional channel purchases of people who regularly buy products online has decreased, however, they appreciate the consumer tracking of online sites and the personalised offers based on them (modern CRM).

According to a quarter of surveyed online customers, the role of mobile devices will gradually increase both in the fields of payments and purchases.

The following information channels are visited before the purchase most often:

- product search, price comparison sites (56%),
- search engine (47%),
- manufacturer's, service provider's site (44%),
- retailer's site (33%),
- social media sites (31%),
- forums, blogs, comments with consumer opinions (30%),
- search engine site with map (8%).

When FMCG products are bought, previous experience and the opinions of acquaintances are still the most important influencing factors, and leaflets are the most effective method of advertising. The role of online resources is only important in a narrower segment that is innovative from a technological point of view.

Only 4% of Internet users have bought food and beverages online "in the last month." The typical customer is a 15–29-year-old male, who spends an average of HUF 11,000 at a time.

At the same time, 22% have ordered hot meals in the last month for an average amount of HUF 2,800; they are typically 15-39 years old urban residents with a college or university degree.

Thirteen per cent of Internet users order cosmetics, personal hygiene products online for and average amount of HUF 8,500. These customers are typically 15–29-year-old high-status women.

Household chemical and paper products are ordered online by 6% for an average amount of HUF 8,900; they are aged 15-29 and live in small towns.

The proportion of online book purchases is significantly higher (32%), the customers are mostly high-status adults from Budapest with a college or university degree. The average value of an order is HUF 5,100.

As regards computer devices, 30% of the surveyed Internet users buy something online, they are high-status economically active men, and the average value of an order is HUF 52,000.

The online purchases of telecommunication devices follow a very similar pattern (28%, HUF 49,400 value), however, the typical customer is an inactive 30-39-year-old man from North Hungary.

It is typically students from North Hungary who buy consumer electronic products for HUF 82,500, they make up 27% of the interviewed people.

Fourteen per cent prefer to buy electric tools, garden tools online (men from North Hungary), the value of an order is HUF 22,200.

Twenty-one per cent like to buy small household appliances online (Central Transdanubia, with a college or university degree), the average value of a purchase is HUF 81, 600.

Children's toys are ordered by young small town residents with a college or university degree (20%), for an average value of HUF 8,400.

Thirteen per cent order home decor products online, they are high-status residents of West Transdanubia, and the average order value is UF6,400.

Clothing (both regular and sports footwear included) is ordered online by 16%, for an average value of HUF 14,600, they are mostly young high-status residents of North Hungary.

5.3 Factors Hindering the Spread of Internet Shopping

It is worth examining why consumers do not choose Internet shopping, however, we need to see the general aspects that customers weigh when choosing the method of shopping for this.

Faster service is of outstanding importance of the expectations customers have since time is money for clients. Customers weigh the speed

of service, they do not like delays, having to wait for the service. As a result, they seek companies where the time between search, selection, order and delivery is shorter.

Virtual self-service requires that the client should not feel helpless. An advantage of self-service is that customers can do the shopping anywhere, anytime, all they need is an internet connection. They do not have to queue for hours or fight for parking places. Customers and sellers can meet directly, no need for middlemen.

Product selection has always had a big role. Online companies have unlimited storage, inventory capacity. An online book retailer, for example, is continuously in contact with publishers, book distributors and second-hand booksellers, thus in addition to the books available in the book shop, they also offer books that are difficult to get or not available in shops. Information makes transparency stronger. The most successful online sites store a huge amount of information about the products, which is accessible when needed. Online companies use e-mails to inform their customers about the products they are interested in, and they can satisfy the individual wishes and needs with customised "shop windows." Customers would increasingly like to deal with everything at one place and at one go. They would like to receive an integrated solution, not individual products. This is served by places where daily products can be bought at one place, places where products related to life style can be bought at one place, or places where "life path" products can be purchased at one place. The everything at one place philosophy increases customer loyalty, the number of products bought at a time and the average basket size, and also makes shopping more convenient.

In the light of all this, what obstacles prevent consumers from buying products or services on the Internet?

Over a third of customers (37%) in Hungary would not like to divest themselves of the experience of personal shopping, while the EU average is only 22% *(Table 8)*. It is worthy of note that an increasing proportion of customers mentioned the lack of the necessary Internet connection, it was 10% of the total population in 2015.

When compared to the average of the Union, delivery problems seemed more serious, five times more people mentioned this as an obstacle than the EU average.

Concerns about the security of payment are a serious issu, 16% of respondents do not trust card payment, which is twice as much as the EU average (2015).

Distrust of returns, refunds is at least at the same level, was 16% in Hungary in 2015.

The absence of bank cards is still a problem for 10% of respondents when it comes to Internet shopping.

On the whole, it can be established that Internet shopping will further develop in Hungary if education, communication to reduce customer distrust are further strengthened in addition to the development of the IT infrastructure.

Table 8 | Factors Hindering Shopping on the Internet

(Percentage of total population)

	2005	2006	2009	2015
Preference for Personal Service				
European Union	18	18	20	22
Hungary	24	35	40	37
Lack of Internet Knowledge				
European Union	4	14	17	18
Hungary	3	4	7	10
Bad Experience with Delivery				
European Union	2	2	4	2
Hungary	5	11	13	10
Payment Security Concerns				
European Union	-	-	11	8
Hungary	-	-	22	16
Product Return, Refund Concerns				
European Union	5	7	9	6
Hungary	8	16	23	16
Lack of Bank Card				
European Union	3	5	4	4
Hungary	7	10	14	10
Other not specified hindering factors				
European Union	3	3	4	5
Hungary	3	3	5	4

Source: Eurostat

6 WHAT CHALLENGES WILL DIGITALIZATION BRING ABOUT ON THE DIFFERENT MARKETS?

According to Hungarian statistical records, the proportion of other retail sale in nonspecialised stores is significant. This includes retail sale in non-specialised stores with food, beverages or tobacco predominating and other retail of industrial products in non-specialised stores, and often even specialist retail shops do not only sell products belonging in their portfolio. The database of the Central Statistical Office does not have a breakdown of products sold within mail order, internet retail and other non-shop, market retail sales, this is why the data from Euromonitor International is used for our research in addition to KSH data.

On the basis of KSH statistics, food products (food, beverages, tobacco products) made up 40% of the retail trade turnover in 2016, 0.4 percentage point more than a year before. Following a 1.0 percentage point fall seen in the previous year, the surveyed 27% proportion of food within the turnover of retail products in 2016 was 0.5 percentage point higher than in 2015.

Of the non-food products, fuel was the product group with the highest turnover value in 2016 (at 16%), followed by the combined groups of furniture, consumer electronics and books, computer technology and other commodities at 14% and 13% respectively.

Compared to 2015, the combined product groups of textile, clothing and footwear (0.4 percentage point), and books, computer technology and other commodities (0.3 percentage point) increased, while the share of the fuel product group decreased by 1 percentage point.

Table 9 shows the changes of turnover between 2011 and 2016 on the basis of domestic data compared to the previous year without the effects of price changes.

In order to be able to forecast the future development of online sales, the changes in retail turnover have to be examined at the level of shop types. The retail network of shops and mail order retail companies realised a turnover worth HUF 9.7 thousand billion in 2016, of which the mail order and internet turnover amounted to HUF 0.3 thousand billion.

The latter figure was supplemented with the figures from the industry, which estimate online sales to be HUF 427 billion (eNet).

Table 9 | Changes in Turnover Volume, 2011–2016 (%)

	2011	2012	2013	2014	2015	2016	Average change between 2010 and 2016
Retail turnover without vehicles	0	-2	2	5	6	5	2
Food, beverages	0	-0	2	5	4	3	2
Non-food (including fuel)	0	-3	1	5	7	6	2
Non-food (without fuel)	1	-3	0	5	7	7	2
Clothes	-3	2	5	14	12	10	5
Medical products, cosmetics	3	1	2	5	5	4	3
Home furnishings	1	-7	-3	-0	3	5	-0
IT products	5	-3	-4	-2	7	5	2
Consumer electronics	-0	-11	-2	-0	0	5	-2

Source: Eurostat

6.1 Food

Although spending on food is a significant part of the consumer basket, the online purchase of fast moving consumer goods is below most of the surveyed product groups both as regards the sales turnover proportion of online purchases and the proportion of customers.

On the basis of the surveys of GfK's Household Panel, 21% of Hungarian households bought fast moving consumer goods (that is food, household chemical products or personal hygiene products) at least once in 2016 in the online channel. Despite this fact, the online channel makes up only 1% of the total fast moving consumer goods spending of households. Although this turnover proportion may be considered low, it does not significantly deviate from the proportions surveyed in the neighbouring countries. The share of the online channel was similarly around 1% on the Slovakian, German, Danish, Dutch and Spanish fast moving consumer goods markets in 2016, but it does not reach 7% in the majority of the developed markets such as Great Britain, France or China either.

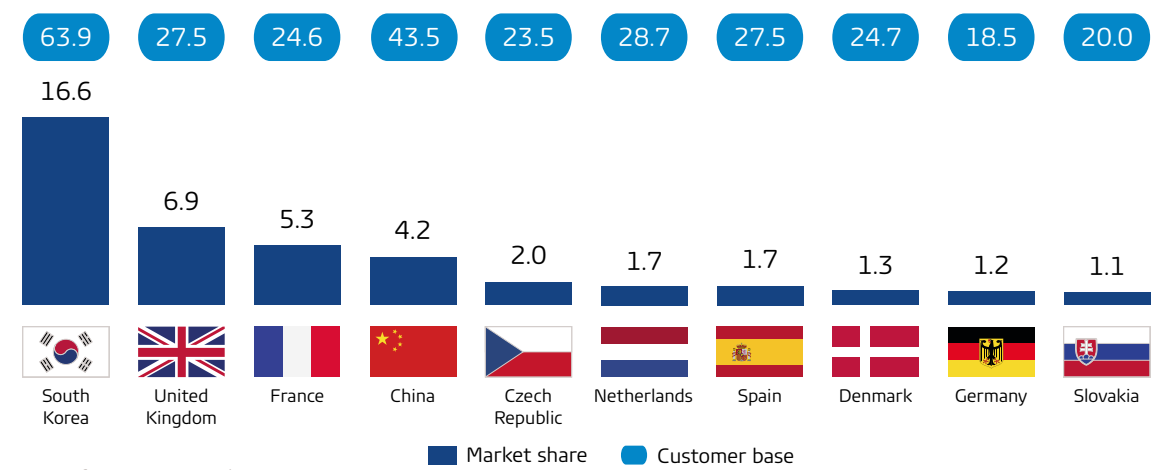
The reason for the low proportion of the online channel lies in the low buying frequency. France may be quoted as an example where the weight of the channel on the fast moving consumer goods market is more than five times the amount of the Hungarian value, however, the proportion of customers is hardly higher than in Hungary (24.6% in France).

The share of the online channel is expected to dynamically increase in the next years, it has increased 2.5 times in Hungary compared to 2014, however, it needs households that regularly use the online channel and not only as a trial. One household bought food or chemical products in the online channel six times on average in 2016, while the similar figure was 5, and 4 occasions in the previous two years. These figures well reflect the fact that the slight increase of buying occasions (the fact the once in three months frequency changed into once in two months) considerably contributes to the increase of online turnover.

The other factor that could contribute to the increase in the weight of the online channel is a growth in the number of customer households. (While 15% of households bought fast moving consumer goods online in 2014, the similar proportion increased to 21% in 2016). The limited geographical coverage of the online services of food retailers prevent a faster growth in the proportion of online customers on the fast moving consumer goods market, so does the fact that the online channel is only suitable for replacing the usually small basket food purchases that satisfy immediate needs with its one-two day delay to only a limited extent for the time being.

There is a third factor, an increase in the average spending per purchase (basket size) that contributes to the increase in the weight of the online channel. On the basis of GfK's Household

Figure 11 | **Short-term Growth Potential on the FMCG Online Market (%)**



Source: GfK Consumer Panel

Panel data, the online fast moving consumer goods basket increased more dynamically than the average FMCG basket on the one hand, but it represents a lot higher value on the other hand. While the value of an online fast moving consumer goods basket was HUF 5,246 on average in 2015, the similar value on the whole fast moving consumer goods market reached only HUF 2,217.

The importance of the different product categories is different within online food retail trade. In the case of products where quality is more standardized, on-the-spot tasting has less or no importance, or where delivery is an advantage due to the bigger size/weight of the product, the share of the online channel is a lot above the average; such examples are dog food (where the online turnover is 15.5% within the turnover of the whole category, or mineral water (10.4%).

Within the group of customers who use the online channel for their fast moving consumer goods purchases in addition to traditional retail shops (that is, multi-channel customers) the proportion of younger (30-39-year old) customers in higher income brackets is higher than average.

It is important to win over customers in this segment by promising them a convenient, short and flexible shopping experience. It is of critical importance to sell the products at a low price since it ensures the "thrifty shopping" experience for the clients. Online shops are especially useful for urban consumers often under time pressure and young mothers. Home delivery is the most popular delivery channel, but some Tesco shops offer "click and collect" points in the car parks of their hypermarkets. Due to the above reasons, it is an advantage that the given food shops, in addition to the presently used desktop platforms, provide mobile applications to draw up shopping lists, so their customers can initiate transactions even when they are on the move.

The following section will examine the expected growth rate of the online sales of fast moving consumer goods in the next five years.

On the basis of KSH statistics, the internet retail trade of fast moving consumer goods reported an 18% increase in value in 2016, which is mostly attributable to the fact that Tesco extended its online retail activities to new places, for example to Székesfehérvár.

The sales volume of food products increased by 2% annually on average, at the same time the internet turnover by an average of 27%.

Supposing that the 2% total annual turnover growth rate will be maintained, and the online sales will grow at a two-figure rate, but lower than before, at 12%, the expected web turnover of food products, beverages will reach HUF 25-30 billion by 2021. The expert estimate prepared by Euromonitor includes HUF 25.4 billion internet turnover for 2021.

Table 10 | Turnover and Change in Turnover Volume of Food and Non-Specialized Retail Stores with Food, Beverages or Tobacco Predominating

Turnover (million HUF)

	2 011	2 012	2 013	2 014	2 015	2 016
Total turnover	3 513 859	3 741 614	3 957 112	4 180 350	4 368 412	4 540 257
Internet turnover	4 775	6 416	8 760	11 001	13 347	15 717

Source: KSH - Turnover of retail shops by shop type

Changes in turnover Volume

	2016/2015	CAGR*	2021/2016
Total turnover	4%	2%	9%
Internet turnover	18%	12%	75%

*CAGR: Compound Annual Growth Rate

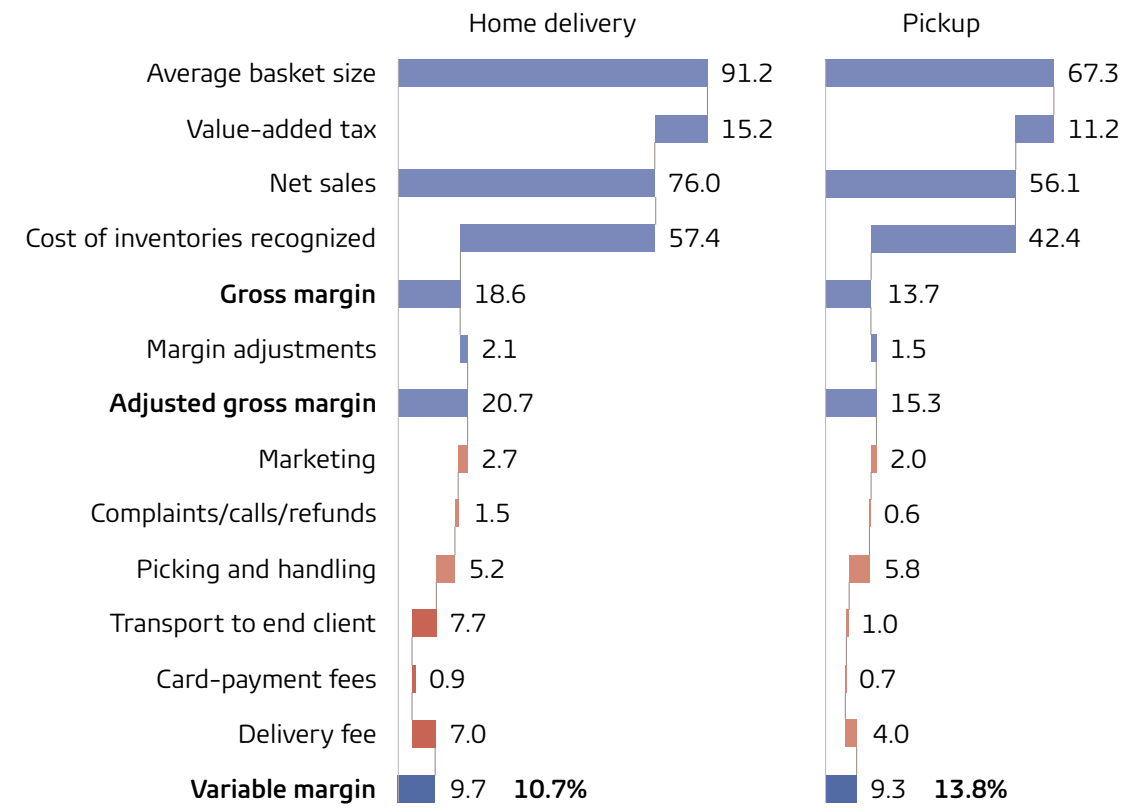
6.1.1 Challenges Facing the Online Food Retail Trade

The market of fast moving consumer goods has traditionally the biggest share of the total retail trade turnover in Europe. It also has the highest figures when it comes to the number of shops, and all these make the appearance of the segment self-evident in the online world. The extremely wide selection of fast moving goods, and mostly the low sectorial margin in Europe, raises difficulties for the players. The low investment need compared to the physical shop is just an illusion, successful business management has very hard rules.

A negligible part of the European retail turnover is online sales. Companies follow the safety first policy when it comes to the online channel since the traditional operating model makes only a rather low margin possible. The initial steps are even made difficult by the fact that the traditional chains, supermarkets, hypermarkets and nowadays even the discounts all offer a satisfactory consumer experience. This latter covers prices, quality, selection and the shop environment. Customers – quite understandably – find it difficult to give up any of it. However, there is an increasing number of good practices.

It is understandable that retailers are worried when they have to consider the unique cost factors of the online channel. Higher labour costs, delivery costs and additional investments are on the imaginary list. It may be a warning sign for retailers following the delivery concept that – as seen is a survey conducted on the European market – customers tolerate delivery costs of around € 4-7. This may surely come at the expense of the otherwise low profitability. Their caution is justified by the limited or lost profit of several business attempts. The trial rate of the online channel may quickly increase, the question, however, is how many of them will become regular users. One of the biggest problems on the consumer side is the perceived quality. Many think the products available in shops have better quality, packaging. Despite it, acceptance of and demand for the online channel can be felt. The initially latent demand is turning into more and more actual shopping transactions.

Figure 12 | **Figures for Pickup**



Source: Galante,N. — López, E. G. — Monroe, S.: The future of online grocery in Europe

Retail innovation has a big role in it as well. French retailers have introduced a practice that goes beyond simple delivery by starting the click & collect concept. The usual in-store transaction (collection) supplemented with the traditional customer journey is one of the journeys recommended by experts. The economic figures examining the differences between the French delivery and collection concept yielded surprising results *(Figure 12)*.

Figure 13 presents the successful strategies of omni-channel trade serves as a guideline for small and medium-sized businesses.

Before a national or regional retailer opens towards another channel, some of the factors that reduce the risks have to be considered. (It should be noted here that the online channel is rather to complement the selection and service offers of the already existing shops in the case of micro-businesses or food retailers with one or two premises; its profitable operation as an independent channel is difficult to imagine.)

This strategy here is not (only) a vision laying down the medium and long term plans of a business, but also means the integration of digital technology (laptops, smart phones) into everyday operations. It has to be considered what platform technology the company is capable of using.

Digital sales means new types of accounting, business concepts that need to be clear right from the beginning. It needs to be known how the conversion factor can be increased or the average order amount driven up. The methods of data extraction and analysis possibilities are also part of it.

Digital marketing practically means integrated inter-channel marketing. The objective is to optimise the different experience points and utilize the new media tools (social media, data contents on the web). These tasks are most often performed by specialist agencies.

Category management is a very complex function of great importance even in the organisation of big companies. It covers the complex management of the pricing, promotional and selection policies of multi- or omni-channel operations, with staff specialized in it in the majority of the cases.

Figure 13 | **Succesful Strategies of Omni-channel Trade**

Source: Galante,N. — López, E. G. — Monroe, S.: The future of online grocery in Europe

The really critical task is to plan and operate the supply chain, and organising supply logistics consumes considerable costs. The right practice influences the success of the whole business.

The energetic, efficient organisation does not only mean the regrouping or delegation of tasks, spheres of activities between the units of the enterprise. Digital sales is a change of corporate culture that influences the whole company.

If a food retailer feels they meet the above criteria and can transform their business into a digital one, they may attack the ask. However, the question is still there: is the business environment mature enough to accommodate a company like that? Does it have adequately digitalized logistic partners, and, most of all, potential customers?

Even if enough resources are available, the drop in the margins and the shop's turnover, the cannibalization effect should be considered. Diminishing loyalty should also be taken into consideration. The exponentially extending digital selection may result in more intensive migration between the different retailers and brands. These obstacles may divert businesses from the online channel, but experts think this is not merely about profit maximization, rather an inevitable step. It is not enough to be good in this process, but the levels of the best have to be reached. Any kind of visible interruption during the purchase

journey causes a breakdown of reputation, and potential customers will go over to competitors. Online food retail trade can only make profits if it is supported by professionally managed processes – marketing, IT, organisational conditions – from the background.

With this knowledge, it is not surprising that, for the time being, it is the chains known from traditional retail trade that mostly make up the turnover of the online channel in Hungary, while the share of shops operating only on the web is lower.

On the basis of data from GfK's Household Panel, the share of retail chains operating in the traditional way as well was 65% in the online purchases of households in 2016, while web shops operating only in the online world made up 35% of the total turnover.

6.2 Consumer Electronics

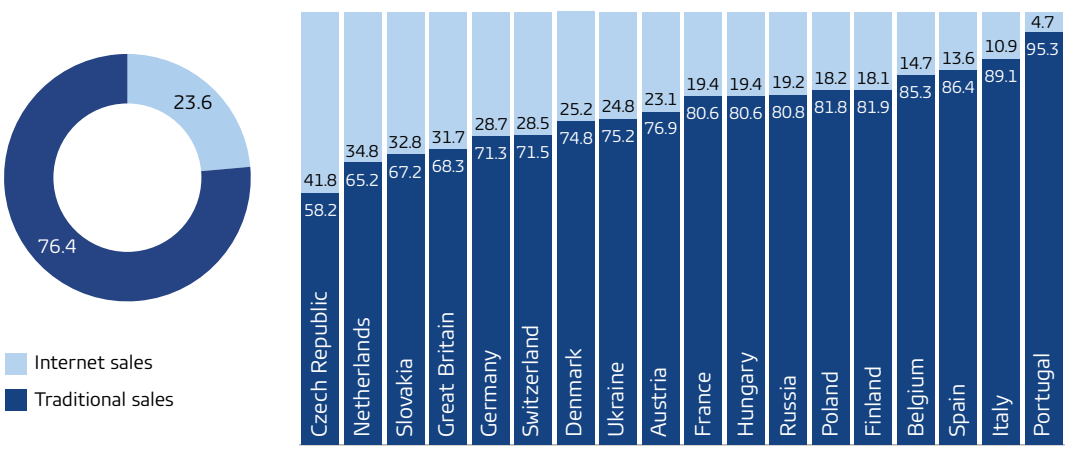
The statistics of GfK's Retail Panel, which surveys consumer electronics, show that 23.6% of consumers buy consumer electronics in Internet shops in Europe. The above figures include those who order directly from foreign portals as well, which turnover does not appear in the official retail statistics. The similar figure is 19.4% in Hungary in 2017, which is a significant rise compared to the approximately 15% proportion five years ago. Of the surveyed 18 countries, the Czech Republic shows an outstandingly high value for the online purchase of consumer electronics (41.8%), while the lowest value was seen in Portugal (4,7%). *(Figure 14)*

Products related to photograpis (30.6%), IT and telecommunication devices (27.6%), office technology (24.7%) had the highest proportions on the consumer electronics market within online purchases. An important factor of the turnover analysis of these products is how big cross-selling or up-selling is when buying the different product types, that is, the possibility to sell additional articles: out of 100 smart phone purchases, 38 consumers also buy a phone case, 17 of them an earphone as well. It is justified to emphasise smart phones because this device has the highest growth rate of sales among ITC products.

Strong seasonality should be taken into consideration when the sale of consumer electronics in the traditional and online channels is analysed. Retailers realise one fifth of the annual sales during the last two months of the year for most of these products. The difference is not significant between traditional and online sales in this respect. *(Figure 15)*

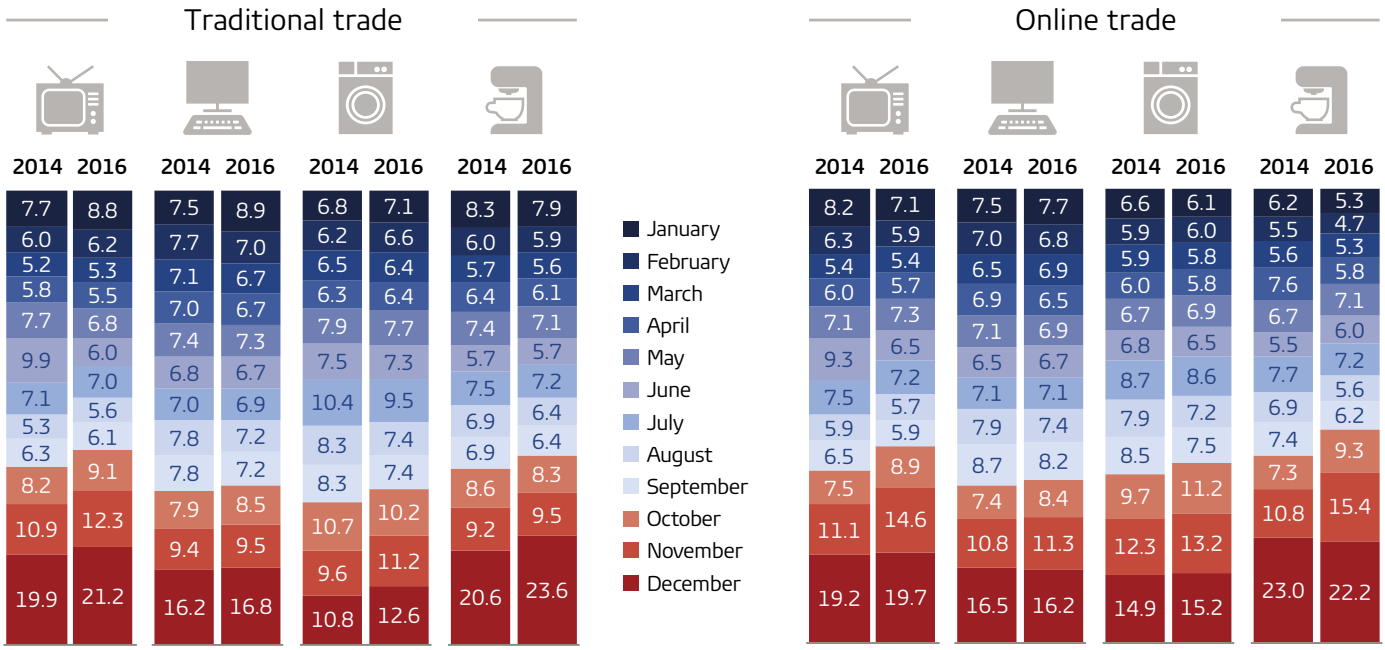
It is worth examining how the proportions of traditional and online sales compare in the case of the individual products since no general conclusions can be drawn. For example, a higher price level was typical of coffee machines in the online channel than in traditional shops (the average price level of coffee machines was 46% higher in the online channel in 2015 than the average price calculated for the total of the retail channels). The reason for it is that customers mostly sought products of higher quality in the online channel, as a result, cheaper products were not part of the selection of web shops.

Figure 14 | **Internet and Traditional Sale of Consumer Electronics in 18 Countries of Europe January–June 2017 (%)**



Source: GfK Retail Panel

Figure 15 | **Offline-online Seasonal Indexes by Sector**



Source: GfK Retail Panel

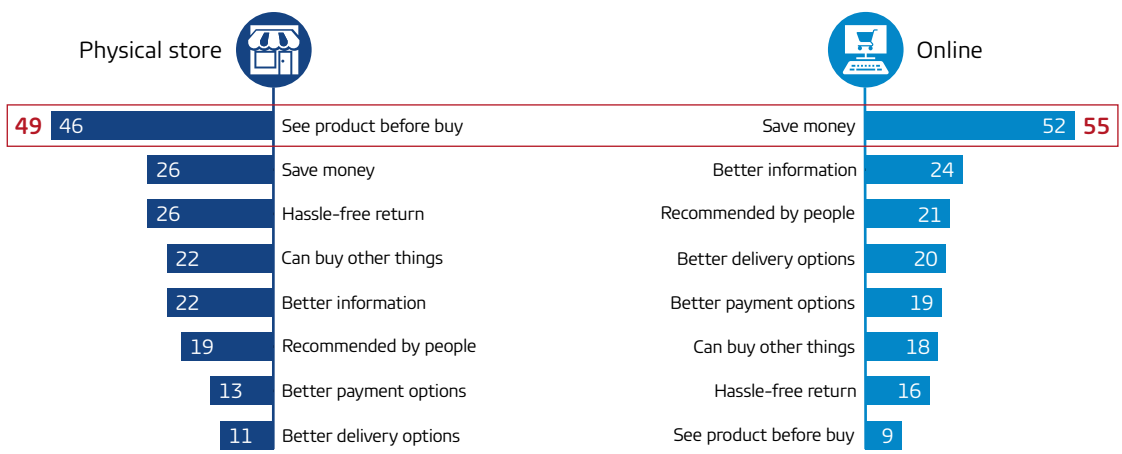
It is important to examine the price advantage, because the results of GfK's FutureBuy 2016 research show that saving money is the primary factor influencing purchases in the online trade of consumer electronics. *(Figure 16)*

However, saving money is only one – although the most important – motivating factor that encourages customers to shop omni-channel.

While the online option is often chosen due to financial and convenience reasons, the physical sensation of the consumer electronic device before the purchase is also an important factor and encourages a lot of customers to visit traditional shops. In addition to the price, the extended selection can be used to win over new customers in the case of consumer electronics, and being able to enforce the warranty is of outstanding importance in customers' decisions. Punctual delivery is also a very important service criterion.

The leading consumer electronics retailers are found among the top 5 Internet shops, among

Figure 16 | **Factors Influencing the Online and Offline Sale of Consumer Electronics (%)**



Source: GfK FutureBuy 2016

them Extreme Digital (edigital.hu), MS-E Commerce (mediamarkt.hu) and SC Dante International (emag.hu). Although these retailers have very different backgrounds and retail strategies, each has a very strong brand name. The Media Markt Saturn Holding was the leading retailer of electronic products in 2016.

The 4% increase in 2016 meant significant improvement for the retailers of consumer electronics compared to the stagnation typically seen in the 2011–2016 period, since the effects of the financial crisis could be felt for years. This was the period when consumers were still cautious about buying expensive products, and a strong aversion towards loans was also dominant. The rise in value in 2016 was supported by the government's subsidisation programme, which encouraged the replacement of old refrigerators with low energy efficiency. *(Table 11)*

Supposing a 3% annual growth rate of the whole turnover (KSH) and the average 9% expansion of online sales (Euromonitor), the expected online turnover of consumer electronics will be HUF 185–200 billion in 2021. The expert estimate prepared by Euromonitor expects a similar internet turnover of HUF 187.8 billion for 2021 for household appliances and other consumer electronics.

Consumer electronics are expected to continue to play a leading role in the Internet retail trade, but the proportion of their sales is expected to decrease because other product groups will quickly catch up. (It is important to note here that products ordered from foreign [for example the Chinese Aliexpress] shops do not appear in official statistics.)

6.3 Clothing

The retail sale of clothes (textile and footwear together) showed a 10% increase in value in 2016, and reached HUF 591 billion. The shops present in shopping centres and selling international brands took advantage of being allowed to be open on Sundays. H&M, Hennes & Mauritz continue to play a leading role in clothes and footwear retail trade.

New players and brands have appeared in the clothes and footwear retail trade, and CCC Hungary Shoes and Pepkor Magyarország have launched their operations. The increase in sales was partly the result of an increase in disposable income and partly the above mentioned re-introduction of Sunday opening, since a calmer, less crowded environment may encourage additional purchases.

The intensive marketing campaigns, coupon promotions were often accompanied by a refreshed selection. Clothes retailers cooperated with women's magazines and distributed several dozens of coupons for the shopping days. These promotions are very popular with 15–45 years old women.

A concentration in clothes retail trade has been typical of recent years. Boutiques have almost disappeared, the number of clothes shops decreased by more than 4,365 between 2016 and 2011. Concentration will continue during the forecasted period as well. In addition, according to expert estimates, sales will increase by an average of 4% at constant, 2016 prices. *(Table 12)* The changes have taken place mostly at the expense of independent retailers, which are not able to sell new fashion items in every season and cannot of-

Table 11 | **Turnover and Change in Turnover Volume of Consumer Electronics Shops**

Turnover (million HUF)

	2 011	2 012	2 013	2 014	2 015	2 016
Total turnover	929 385	849 687	854 723	846 089	841 421	878 433
Internet turnover	36 166	62 774	77 269	85 545	107 612	119 219

Source: KSH (Hungarian Central Statistical Office) – Turnover of retail shops by shop type

Changes in Turnover Volume

	2016/2015	CAGR*	2021/2016
Total turnover	4%	3%	15%
Internet turnover	11%	9%	55%

*CAGR: Compound Annual Growth Rate

Table 12 | Turnover and Change in Turnover Volume of Textile, Clothes, Footwear Retail shops

Turnover (million HUF)

	2 011	2 012	2 013	2 014	2 015	2 016	CAGR
Total turnover	386 403	405 034	423 067	479 560	536 243	591 336	9%
Internet turnover	14 892	18 532	22 334	26 720	30 641	33 156	17%
Share of Internet turnover	3,9%	4,6%	5,3%	5,6%	5,7%	5,6%	

Source: KSH (Hungarian Central Statistical Office) - Turnover of retail shops by shop type

Changes in Turnover Volume

	2016/2015	CAGR*	2021/2016
Total turnover	10%	4%	22%
Internet turnover	8%	11%	71%

*CAGR: Compound Annual Growth Rate

Table 13 | Turnover of Do-It-Yourself Retail Shops

(million HUF)

	2 011	2 012	2 013	2 014	2 015	2 016	CAGR*
Total turnover	70 980	74 304	69 485	68 912	68 199	73 175	1%
Internet turnover	2 858	3 122	3 794	4 314	4 781	5 247	13%
Share of Internet turnover	4,0%	4,2%	5,5%	6,3%	7,0%	7,2%	

*CAGR: Compound Annual Growth Rate

Source: Euromonitor, KSH (Hungarian Central Statistical Office) - Turnover of retail shops by shop type

fer competitive prices. Retailers selling products from the cheap Asian markets continue their dominance in small settlements and small towns since the demand for cheap clothes is expected to continue, especially in geographical regions with lower purchasing power.

The Internet retail trade and the purchase of mobile devices also have a negative effect on traditional shops, at the same time, the biggest department stores, shops have already launched their own web shops.

It should be noticed behind the 9% average increase at constant prices that the development only started to accelerate after 2013 following the 2008-2009 recession.

Although the number of traditional shops has fallen, that of the Internet shops increased and they represented 5.6% of the total turnover in 2016.

Accepting the 4% growth rate for the for the whole clothes turnover, and the 7% average growth rate for the internet sales predicted by Euromonitor International, the online sales are expected to be HUF 56-60 billion in 2021.

The proportion of the Internet sales of clothes, textile and footwear will thus rise from the nearly 6% now to 7-9%.

6.4 Do It Yourself Products

The effects of the 2008–2009 recession were long felt on the market of do it yourself products, while the concentration of the market continues at the expense of small, independent shops. Being able to open on Sundays has an advantageous effect on stores with high turnover in shopping centres, along motorways and the ring road around Budapest and other big cities. Concentration of the do-it-yourself products

market continued in 2016, OBI itself represents a significant share of the sales of do-it-yourself and gardening products.

The wave of home-building, the revival of the real estate market, which gave a boost to home renovation as well, had beneficial effects on the market of do-it-yourself products. The turnover of do-it-yourself retailers increased by 7% in 2016, while the average growth was only 1% between 2001 and 2016. The retailers could not exceed the HUF 74 billion turnover of 2012 in the discussed period. *(Table 13)*

Starting from the 2.2% growth rate for the whole home renovation and gardening product sales, and the 6.7% average growth rate forecasted for the Internet sales by Euromonitor International, the online sales are expected to be HUF 8-10 billion in 2021.

6.5 Toys

Partly due to the increase in average income, the toy market gathered new momentum in 2016. The market size estimated by GfK is HUF 50-60 billion, of which online retail trade makes up about 35%. The share of the online channel has been growing continuously within the toy market in the last few years. At the same time, offline hypermarkets, whose combined turnover (including Metro) makes up two fifth of the market according to the surveys of GfK's Retail Panel, showed a 5% fall compared to the similar period of last year despite the trends of the whole market going in the opposite direction in the January-September 2017 period.

It is probably the increasing rate of online sales that will be able to counterbalance the decreasing trend of toy sales in traditional shops. Simultaneously with the average 7% fall in toy sales, online sales realised a nearly 28% annual increase between 2011 and 2016 (Euromonitor).

Although the market estimates based on traditional trade statistics including Euromonitor forecast a total fall of a third in the size of the toy market for the next five years, this is modified by the fact that a bigger and bigger part of the Hungarian toy market is made up by foreign web shops that do not appear in domestic sales statistics. GfK's Retail Audit survey confirms that while customers used to predominantly visit Hungarian sites (this proportion was 80% of customers in 2014), confidence in foreign online shops has been growing in recent years. The proportion of those who specifically prefer Hungarian sites had fallen to 60% by 2016.

The average basket size is also on the increase during online purchases. While the average amount spent was HUF 7,800 in 2013, this sum increased one and a half times, to HUF 11,400 in 2015 (GfK).

The biggest players of the Hungarian toy market also report a significant increase for the years 2016 and 2017. The estimated growth for the market leader Régió Játék, which is active on both the online and offline markets, is nearly 10% for 2017, while the turnover increased by 18.76% in the case of Formatex Kft, which owns the retail chain Játéksziget, in 2016 compared to the previous year (Világgazdaság). The estimates of the Játéknet.hu web shop, which is the leader in the online channel, are really optimistic for their expected turnover growth in 2017 (30-40%).

Considering all these, an at least stagnating, but more probably increasing total toy market is expected in 2021, which will exceed the presently estimated HUF 50-60 billion level.

7 CREATING, OPERATING WEB SHOPS

The unification and integration of applications connecting to the different elements of the value chain is the key to e-business. When an order arrives from the retailer's web site, the web application has to respond to it in the fields of sales, invoicing, logistics and distribution. However, creating harmonious process and application integration is a complex task. First of all, in order to achieve successful process integration, the already used IT applications have to be thoroughly examined so that the external look and internal operation structure of the company is uniform. Infrastructure that is not perfectly integrated may cause process faults, inaccuracies and inflexibility in the application.

New organisational development approaches have to be learnt as a result of the rise of e-commerce. Company managers can understand more and more that the business conditions of e-commerce influence the whole of the enterprise. They will gradually understand that if they want to solve the problems ranging from customers to suppliers one by one, they will not get far ahead in the world of e-commerce; at the same time, it is a lot more difficult to change the old infrastructure than start and build a new one from scratch.

Companies will only be able to make a profit in the future if they profit from advantages that originate from process development that influences the whole of the company by considering the results of digitalization, which make the operation of the organisation more effective and successful with the integrated organisational applications. From the enterprise's point of view, speed and the ability to adapt means that the company is able to meet the market's requirements without particular costs, time loss, organisational problems and a drop in performance. E-commerce as a new type of distribution channel can only be successful if its elements are adjusted to customers' needs to the fullest, that is, to diversity, quality, price and fast delivery. As a result, a customer-centred model has to replace the company-oriented IT infrastructure, which helps develop complicated business plans.

7.1 Conditions of Opening/Operating a Web Shop

The following is an overview of what the conditions of opening a web shop are, what steps need to be taken to open a web shop. (Hereinafter web shops and e-commerce refer to the same concept.)

7.1.1 Planning

The success of a web shop depends on what decisions the managers of the company make during the preparation and development of the e-shop, and what objectives are formulated, what priorities are set.

When the company's managers determine the general direction of the e-shop, they have to carefully examine three interlacing layers: the planning

Table 14 | **Intertwining Layers of E-Commerce Planning**

(layers from upside down)

Planning E-Commerce	Value selection Customer stratum Customer priorities Organisational skills	
Infrastructure of e-commerce applications	Organisation of customer relations Corporate resource planning Corporate application infrastructure Distribution chain	
IT structure of e-commerce	Transparency Inclusion Security	Reliability Storage Internet servers

of the e-shop, the infrastructure of the e-shop applications and the IT structure of the e-shop. *(Table 14)*

If we are to prepare a modern e-shop plan, the following questions need to be answered first:

- What kind of business plan can make customer experience special?
- What skills and competences ensure rich customer experience?
- What product and service selection do we try to reach customers with?
- What kind of selection policy are we striving for?
- What type of consumers, behaviours do we want to target?
- When seeking success, how do we make the company successful?
- How do we ensure efficient operation?
- Who will be our suppliers?
- Who are our competitors, what are they good at, why are they market leaders?
- How does e-commerce fit in with the already existing traditional shop retail sales?

The answers to these questions are needed for the company management to obtain a picture of what kind of resources, competences are needed for the competitive operation of a web shop. A company can only provide its customers with what they need if all the elements of the e-shop are made consistent. When the plan is ready, it is time for the next stage: development of the application structure.

The infrastructure of e-commerce applications provides the software functionality necessary for the operation of the e-business plan. E-customers can only be won over if there are secure, well designed e-commerce applications and unified in-house systems. In order to develop infrastructure involving the whole of the company, the integration problems emerging due to different systems and data formats and outdated applications have to be rectified first. It has to be decided during the planning process whether the company will use its own or buys/rents external applications. Nowadays businesses may have access to applications that can be further developed, or rather customised to their needs with very little IT knowledge. A good example of user friendly applications is the web shop called Prestashop, the engine of which is open source software that companies may download free of charge. Only some storage space and some expertise is needed to make the basis of the web shop functional. However, the engine of the web shop is not enough for successful operation, the web shop has to be built (for example web site architecture, style, structure), which will be the "framework" of the selected web shop. This is followed by the trade-professional job in order to make the web shop trustworthy from both a business and a financial point of view.

The IT structure of the e-shop is the structural base that helps the applications. The development of reliable infrastructure ensures the operation of the applications and the accessibility of online activities. The properly developed infrastructure quickly, securely and simply utilises, stores and manages the information on the one hand, and unifies the technologies, tools and services necessary for the flawless operation commerce on the other hand.

Business success depends on how fast the company works out new business plans and how fast it adjusts them to the requirements of the market. Today's business environment requires e-business plans, and to achieve it, the changes do not only have to be made at the level of the company, but the whole supply chain and the e-channel have to be restructures as well. Decisions have to be made in the course of the planning process on what infrastructural elements the entreprise needs (for example computers, network), and how, from what sources they will be financed.

7.1.2 Value Chain, Process

The greatest challenge of e-commerce is to make the results of digitalization consistent with the new business plan of the company. When the market and the technology are changing simultaneously and fast, making them consistent requires a great deal of expertise.

Successful companies do not only increase the value, but also develop new values. In order to do so, company managers have to invert the traditional value chain: enterprises define themselves on the basis of the products they manufacture within the inside-out model.

Company managers want to be efficient and successful by launching a well-defined product on the market in the traditional model. However, only plans originating from outside, from the world of customer needs inwards can be successful in the world of digitalization. Within the outside-in model the strategy is not defined by the company, but by the needs of customers. Customer-centred business plans consider customers' priorities and expectations as primary, and are aware that they are constantly changing. Customer needs determine the logistic processes to be built, for example, whether warehousing is needed, or what payment methods are worth offering to customers. *(Figure 17)*

7.1.3 Organisational Framework

The use of new electronic tools contributes to dismantling the traditional rigid hierarchies; a response capability that is a lot faster and more appropriate, and organisational structures making faster decision making possible should be built. The quality improvement of the efficiency of internal and external processes made it indispensable to flatten the hierarchy of decision making, that is, reduce the number of levels. This can be done through the application of company organisation, IT tools (virtual flattening of the hierarchy), but most effectively through the combination of the two. The former multi-level organisational division is replaced by teams organised in networks. Nowadays it is not the position within the organisation but the creativity, the ability to solve problems that determines who can be a member of a given team. Today not only the workers of a web shop, but the staff of companies operating traditional retail shops can communicate with the whole world through the intranet making the exchange of important information without any filters available to every team member on the network. This may diminish the lack of information on the one hand, and the paths of information flow and decisions can be made more transparent and easier to follow on the other hand. The horizontal or virtual networks supported by information technology effectively support the notion of "internal enterprise" meaning that the employees are becoming entrepreneur partners.

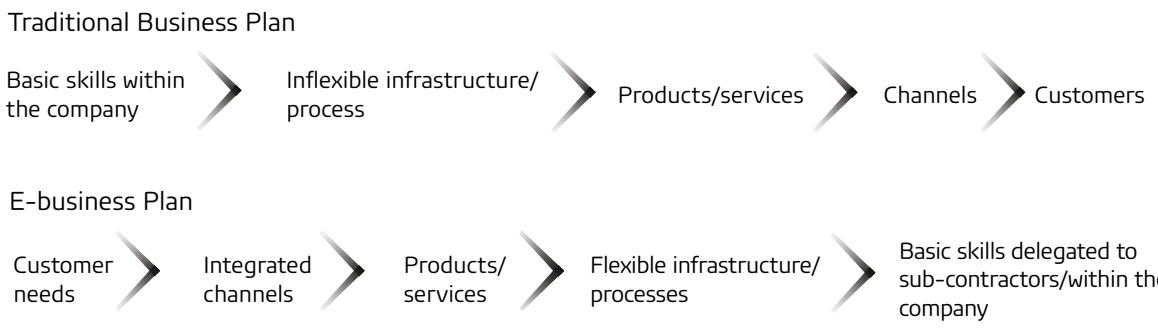
As a result, company managers need to ask questions such as:

- How does e-commerce influence the form and function of 21st century organisations?
- How do traditional companies transform into e-commerce companies in the competition for the graces of customers?
- Can companies operating with a traditional organisational structure stand up to the threatening new ones?

7.2 Business Advantages from the Use of Digitalization

Striving to create value can be seen among the most important criteria of introducing Internet business listed above.

Figure 17 | **Reversing the Value Chain**



- Expansion of the Market. Customers that could not be contacted through traditional channels (for example shops, personal business) can be reached through the electronic channels (the Internet). The interactive opportunities of the net and the easily accessible information have created several product and service markets (for example car markets). These markets have transformed the trade of these products and changed the buying habits. Since more and more people use the Internet, information providers place the information about these products on the Internet and let consumers search. In this way consumers can find the type, size, kind, brand of the product, their special requests, the description of the product, loan requirements etc.

- Improvement of Efficiency. The electronic support (or electronization) of business processes improves companies' efficiency by making the transactions with clients and suppliers faster and cheaper, at the same time, it improves flexibility and the ability to quickly respond to market changes. Beyond that, the Internet makes it possible to explore new markets and utilize the advantages of economy of scale.

- Increasing Visibility. One of the scarcest resources of the modern world is attention: things that cannot be seen well do not exist. By appearing on the net, the company becomes visible to practically the whole world (which of course does not mean it will be noticed).

- Strengthening the ability to respond. Companies can very quickly respond to impulses arriving from clients and can send them messages, information, services at the same speed through their electronic systems.

- New Services. There are more and more markets where the basic products are overshadowed by the additional services linked to them, where customers do not decide to buy on the basis of the product but the services provided, where the latter make more profits than the former one. New services can be offered with the help of the Internet, what is more, with relatively low costs.

- Building Business Relationships. A business system consisting of cooperating companies can create more value if everybody in it does what they do best. The basis of cooperation is communication, and now it means electronic communication. Previously, a lot of companies used expensive and limited EDI systems for it; a lot more partners can be involved in the business ecosystem now with the help of the Internet, what is more, at a lot lower price.

- Reduction of Costs. Companies may save cost with the help of electronic systems: they do not need to open offices in far-away countries, send employees there, print and send expensive leaflets and keep high levels of inventory and so on.

- Increasing Influence. The so far isolated information branches are further integrating with the help of e-commerce. Consumer electronics, television, book publishing, telecommunication and computer business enterprises are coming nearer to one another with the help of data, content provision, storage, networks, business applications and customer tools. New forms of value are developing. The power of the Internet is beginning to be felt in all parts of our personal and professional lives.

- E-channels. Technology is gradually transferring the power to customers. E-commerce is changing the channels through which customers and companies traditionally traded the products and services. Retailers may target a global audience through the e-channel, they can operate with minimal infrastructure, reduced costs and increasing returns to scale; in return, customers receive a wide selection, convenience and competitive prices. As a result, more and more customers manage their transactions through the Internet, buy things, take out insurance policies, pay bills, buy airline tickets etc.

As regards value creation, these are visible and clearly definable advantages that come with a simple rule: if you do not take advantage of them, somebody else will.

7.3 Risks, Problems

Those who want to use the advantages e-commerce offers have to face serious challenges and difficulties, which means so far not seen tasks and risks such as:

- Users may encounter problems: search engines may freeze, network connections may be cut off.
- Initial hardware and software investment or leasing.
- Risk of cannibalization, that is, inevitable conflicts with the former distribution channels.
- Problems with training and teaching the staff about the new media.
- Knowledge of the special legal issues of electronic business transactions.
- Obtaining new management competences.
- Updating outdated applications.
- Integrating the often fragmented information.

7.4 Summary

Table 15 summarises what kinds of decisions need to be made when planning a web shop making the sale of bicycles possible.

Table 15 | Decisions When Planning a Web Shop

WHAT	HOW	OBJECTIVE
Sales	Customers can order "personalised" bicycles through the web site, can track the process and choose from financial services.	Reduce the size of working capital, the number of "idle" bicycles at the retailer.
Servicing	Bicycle owners can receive online help, can manage their repairs under guarantee, track payments.	Servicing, electronic collection and analysis of problems, cost reduction by making help automated.
Suppliers	Online electronic purchasing and communication system with suppliers.	Saving of expenses through discounts and lower transaction fees, speeding up the information flow.
Marketing	Electronic tracking of customers' needs, shopping habits.	Better adaptability to customers' needs, more information for cyclists.
Financing	Online loan and electronic payment system.	Reduction of financial transaction costs, increasing revenues, reaching new customers.
Personnel	Computer, printer and Internet access	Personnel responsive to electronic solutions. Faster acceptance of the changes. Efficient internal staff.

8 GUIDE TO THE FUTURE

8.1 Retail Trade in a Different Way

As it was stated above, the basic task of trade as a profession can be summarised in four points: the right product, at the right place, at the right price and at the right time should be provided for the customer. Similar terms can be found in the vocabulary of modern retail trade only adjusted to the requirements of the digital and omni-channel distribution model. It is not the nature and function of trade that has changed, but is important characteristics. Today – and especially in the future – the dimensions of selection, price, proximity (convenience) and experience will determine the operational framework. Proximity means obtainability, that consumers-customers have to be reached when and where they just are. Mobile phones have brought about real changes in this area, but this may be replaced by wearables with time.

The milestones of the already thoroughly discussed customer journey have to be made visible and accessible. "Find me, try me, buy me." – this is the reinterpretation of the traditional decision tree theory.

Nowadays it may seem far-fetched, but marketing experts consider the simple, category-based practice outdated. Modern customers do not want to choose and buy one category after the other. They trust retailers with setting up a meaningful selection. They will lead, guide them in this process. As GfK's report on the future of trade points out, cars will be bought with baby products, cooking books with kitchen gloves. This will bring about changes in the relationship of suppliers and distributors on the one hand, and will link players competing with each other on the other hand. GfK's global research shows that one in five customers prefers the shop environment because they can choose from among more products at the same time.

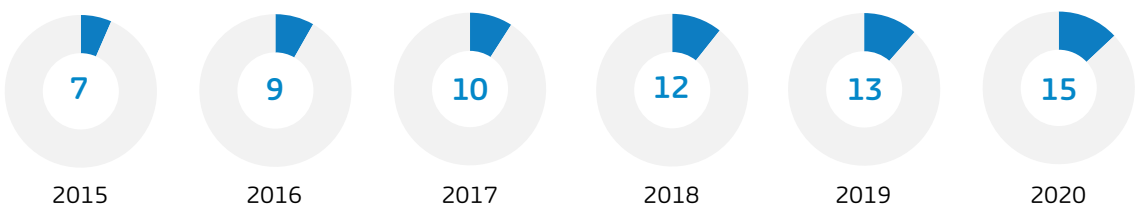
Pricing is another branch of art. It is a clear criterion that customers expect uniform and transparent pricing today and in the future as well. However, this does not mean uniform pricing throughout the whole selection. Uniform pricing can be abandoned if there is real added value, separate packaging, extra service, servicing or a longer warranty period. What is more, if they are aware of which customer groups are less sensitive – from sophisticated customer management analyses – retailers may even realise a price premium. But strictly when they offer more. Generally, offline and online prices must coincide, but if the "shopkeeper adds things to the package" in the shop, the value may be different. The main rule is transparency, but a price premium is due for extra services.

One of the beauties of the trade profession is to determine the experience, the optimum of customer experience. The level where "packaging," the shop and/or virtual environment is not excessive and does not create a boomerang effect, at the same time is attractive enough and encourages to buy. Successes of the future will not happen by considering one or the other criteria. Progress will come more as the result of complex thinking, experimentation, technology- and data-friendly management and the staff that embrace the changes.

Pressure on Retailers

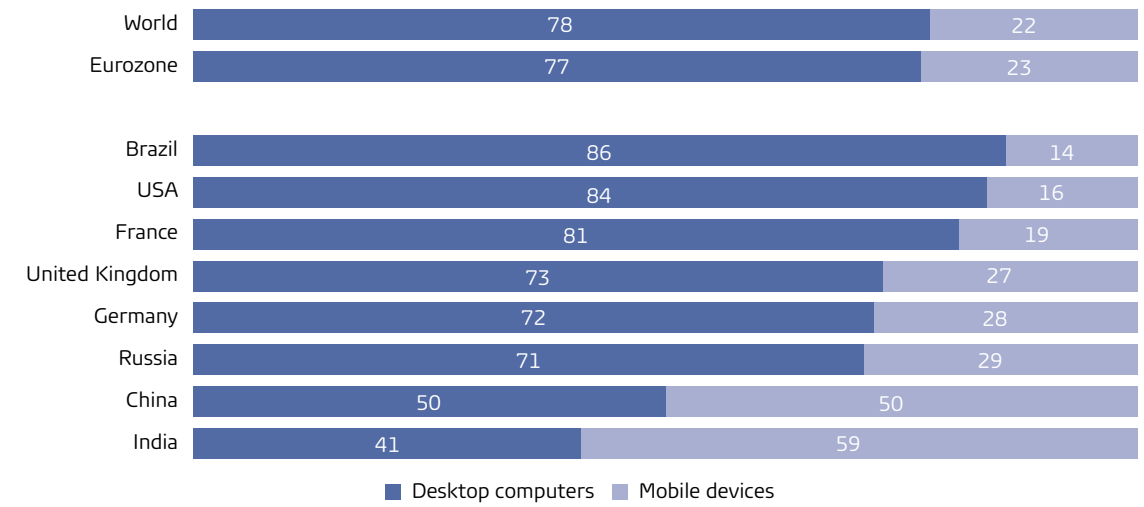
The business models, operational mechanisms known for decades have been turned upside down, and it has naturally led to difficulties. Although we tried to moderate the effects resulting from online expansion above, the fact that the presently approximately 10% proportion of the total market (of the global turnover) will reach 20% by 2020 rightly makes the players excited. *(Figure 18)*

Figure 18 | **Share of Online Sales in Total Turnover (%)**



Source: Retail, Disrupted. Pressure and Potential in the Digital Age. Economic Research, Spring 2017.

Figure 19 | **Transactions on Mobile Devices vs Desktop Computers (%)**



Source: Retail, Disrupted. Pressure and Potential in the Digital Age. Economic Research, Spring 2017.

Digitalization and consumer experience pose constant challenges, and this is at the back of the fact that the profitability of the industry fell from 8% at the beginning of the decade (2011) to 5.7% (2016). The development of the omni-channel model, ensuring the online operating conditions and working out mobility – as the solutions generated by the trend – all erode companies' profits.

The appearance and future role of the latter is evident; the only question is the speed of its spread in mobile transactions. *(Figure 19)*

Not everybody responds the same way to this pressure coming from the market. Some prefer acquisitions or mergers as the 6.2% increase in merge and acquisition transactions completed in the industry between 2010 and 2016 attest to it.

Others have become insolvent and given up. The proportion of companies within the group of retailers with over USD10 million turnover that could not make payment increased by 66% in 2016. Consolidation and adjustment to the new conditions have painful consequences. Euler Hermes explored the most important challenges on twelve leading markets. At the top of the list of the industry's experts – which usually describes the tasks facing retailers – is the development of the omni-channel operation. Hardly behind it is finding the means to cover the expenses of online presence, followed by efforts devoted to developing the mobile phone customer experience at the third placed. The first five priorities also include Big Data and the redefinition of market position.

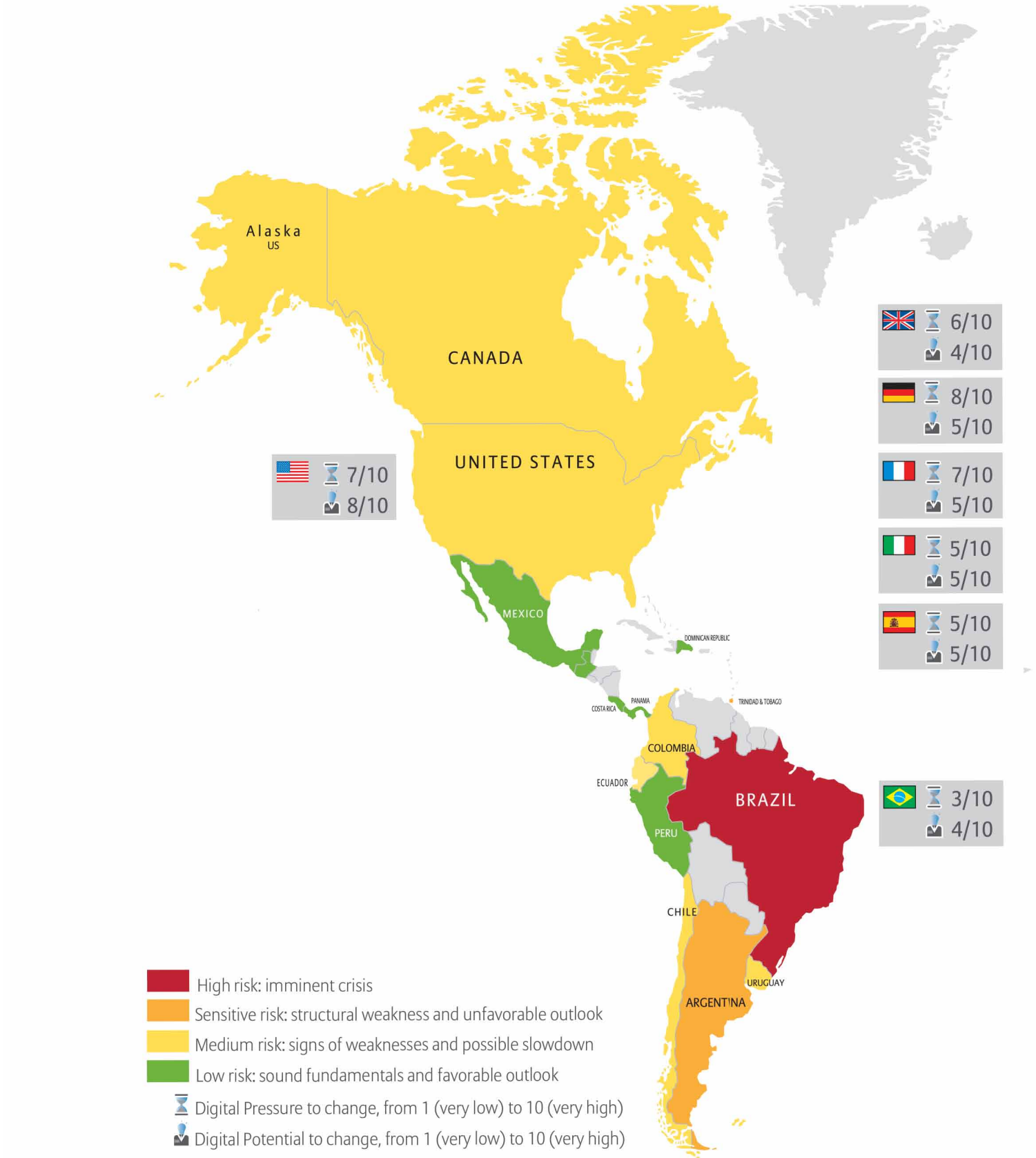
It is worth examining the digital risks separately. The "digital pressure" index including the intensity of the price competition, the transformation of the market structure (to what extent the new players upset the status quo?) and the intensity of online shopping established the spread of discounts and the nature of online shopping as risk factors, but market concentration was also found a risk in England and Italy.

The "digital potential" index, which is a type of evaluation that takes the responses given to digital challenges, logistic efficiency and the financial situation into consideration, gives a surprising and geographically diverse picture. As regards responses, the markets of the USA, Britain and India are placed first, while China and India stand out as regards the weight of the financial criteria. *(Figure 20)*

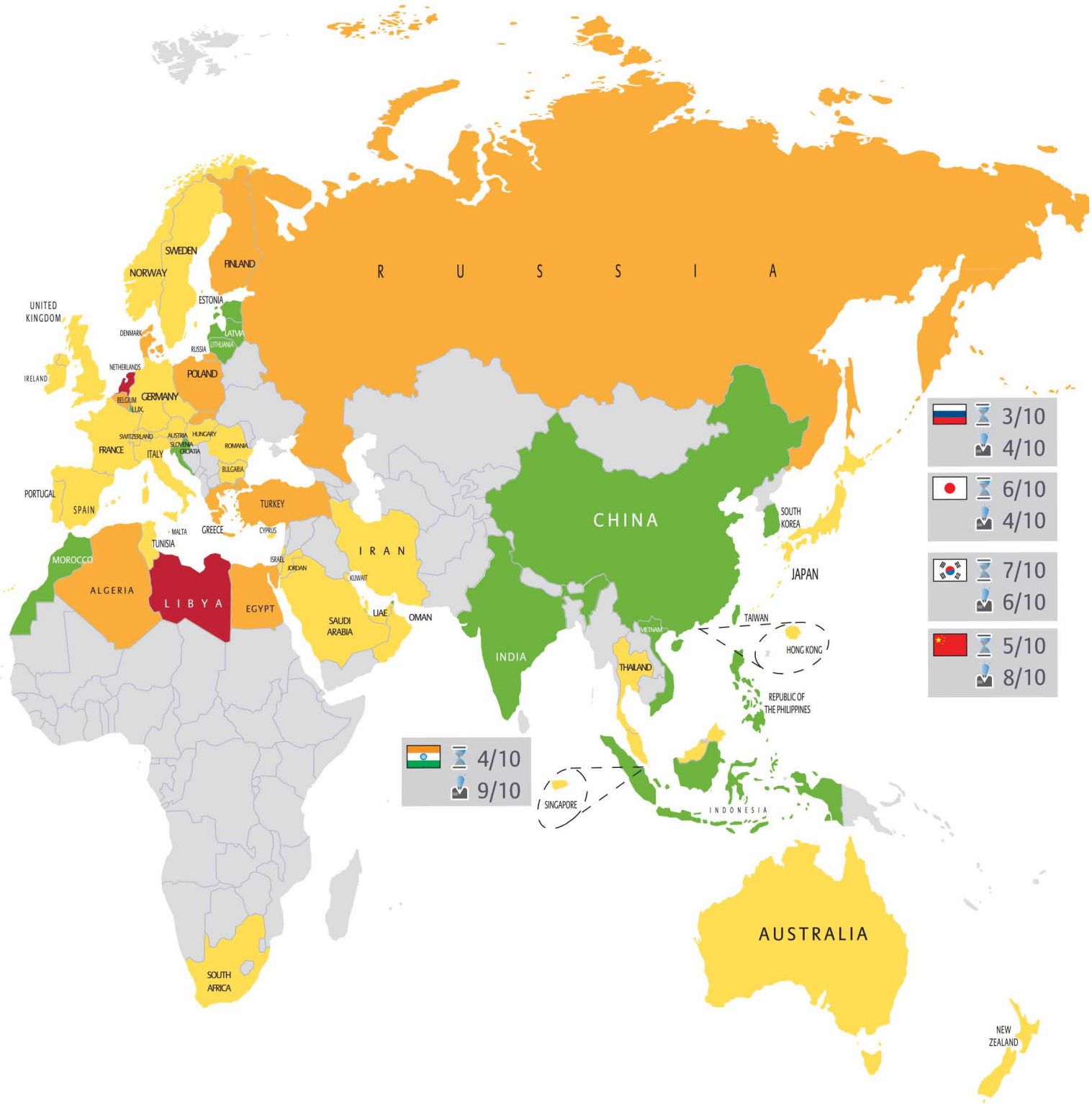
Since the Hungarian trade universe is part of a global, but at least a transnational ecosystem, the global risk map of 2017 trade has a lot to learn from for Hungarians as well.

Hungary is among the medium-risk markets and this will surely influence the intentions of those wishing to invest there in the near future.

Figure 20 | **Retail Risk Map, Q1 2017**



Source: Retail, Disrupted. Pressure and Potential in the Digital Age. Economic Research, Spring 2017.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LUX.
GERMANY
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AUSTRIA
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SLOVENIA
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FRANCE
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BULGARIA
PORTUGAL
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MALTA
GREECE
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MOROCCO
ALGERIA
LIBYA
EGYPT
ISRAEL
JORDAN
IRAN
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SAUDI ARABIA
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OMAN
CHINA
SOUTH KOREA
JAPAN
TAIWAN
HONG KONG
VIETNAM
THAILAND
INDIA
REPUBLIC OF THE PHILIPPINES
SINGAPORE
INDONESIA
AUSTRALIA
NEW ZEALAND
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We can often hear about the battle between the small and the big businesses in expert and everyday conversations about trade both domestically and internationally. It often seems that the future of the industry can only be interpreted in this dichotomy and development is merely about occupying territories – and market positions. It is an indisputable fact that, for practically 15 years from the second half of the '90s on, intensive expansive activities could be seen on the Hungarian market. The intensive efforts of development – to optimise efficiency – were rarely seen, the expansion of the networks was typically in focus. International players had a better starting position in this competitive situation from the outset when they started the otherwise necessary technological improvements. They had ready solutions, platforms, production-service processes at their disposal, and they merely had to adapt them to the Hungarian conditions. At the same time local competitors had to face a cost intensive, often difficult series of decisions.

The development of logistic centres, corporate governance and IT systems consumes billions, which overtaxes Hungarian-owned companies operating with low efficiency. What is more, even the investments were cancelled in many instances, the IT revolution left a lot of retailers unchanged. Less visibly, but a series of developments can still be seen in the processes and tools. The following list considers the practices of developed markets, but can sporadically be seen in the Hungarian retail trade environment. We do not claim that the previous concept has overwritten the rules, but we can claim that some of them breaks the framework of the distribution trade and go beyond their present functionality.

- The omni-channel concept is dominant in the rewritten retail world. In-store customer experience is the other important element. But the assistance, support of the shop assistant in the virtual/physical reality will be an essential condition in a few years' time as well. The experiments – especially due to the low cost of development-trial made available by digital technology – will bring exciting offers to the market. The concept car of the Zalando online shop has a virtual fashion shop in it through the display attached to the sun shield. Imagination is only limited by imagination itself.

- Markets that are built on trust and transparency feed on consumers' knowledge and striving for transparency. Similarly to corner shops, small independent retailers have not disappeared from the scene either, they will have their role in specific types of shopping in the future. Those aiming to reduce the ecological footprint have always approved of the presence of local producers and suppliers. Their importance will not decrease in the future either, or may even increase.

- The hypermodern environment using the latest technology includes the solutions of Augmented Reality. Interactivity will become a key concept in the forms of responsive shelf systems, shop windows and secondary placements. The in-store marketing tools of the Liferoy company developed for retailers and presented at the Brandfestival conference in October 2017 are definitely of the future. The demonstration built on holographic technology offers the experience of reality, and if it is combined with the "accurate targeting" of customers (instant promotions available in the store) the success is certain.

- Community retail trade is still a fresh idea on the horizon, and we consider its future success possible. The barter transactions between friends-acquaintances, or the enthusiasts of a feeling (who are willing to pay more) as well as crossover shops belong to this group. The latter is a solution that goes beyond the traditional category concept and generates a retail environment even like a flat. The world of fluid spaces can also be categorised as community retail trade. We have already learnt about pop-up shops in this realm, but the time may come when a shop changes its profile with the time of the day. Digital technology will greatly support it.

Retailers dealing with current, everyday troubles are usually able to overcome the problems. They manage the routine tasks but do not pay enough attention to the future. Scarcity of labour, conflicts in inventory management are issues that constantly come up. An equally important international trend is one that, for example, forecasts shorter periods for the renovation of shops. This period has decreased from 9.7 years to 8.7 years in the food sector in Germany in the 2000s, while from 8.4 year to 6.9 years in the case of non-food retailers. The omni-channel business model forces trade enterprises to constantly develop whether it is a software solution, the shop infra-

structure or the improvement of the skills and competences of their human resources.

Let's Talk Numbers

The year 2017 is expected to be continuing the previous period, which also produced favourable figures. The outflow of wages and the relatively good labour market trends all make a constant 4-5% increase possible in these years. However, entirely different dynamics can be found behind the development of the turnover. According to an estimate by Euromonitor, the average annual growth in stationary trade will be 2.1% in the 2016–2021 period while non-store sales will increase by 7.6%.

Euromonitor forecasts an annual increase of 2.1% till 2021 in its prognosis about the net sales of in-store food and non-food products, but we think they have underestimated it. The same is 2.2% in the non-food category, a one percentage point fall in the case of miscellaneous manufactured goods *(Table 16)*.

This forecast also sends a message about the number of shops.

It means that the number of shops in the Hungarian retail trade will have fallen by 20,000 in the two decades following 2000. An about 7% drop is expected in the case of fast moving consumer goods.

The net turnover of non-store trade will exceed HUF 450 billion in 2017. The net volume of sales will increase to about HUF 550-600 billion by 2021.

But the picture is diverse here as well. While the net turnover of the home shopping channel will fall by a third (-37.4%) in five years, Internet sales will increase by half (+55%). Direct sales also suffered during these years, its revenues fell by nearly 5%.

Sales through the Internet is in the focus of almost all the businesses that intend to diversify the platforms they use to reach their customers. At the same time, this almost euphoric period points to the importance of thinking in business models. This segment of the market will probably see a two-digit increase for years to come, however, the rate of growth will decrease. The Hungarian market is far from mature as regards online retail trade. At the same time, the big players have already arrived, they are beginning to take their market positions. According to estimates, there are about 6,000 web shops offering their products, but the five biggest players already have one fifth of the market. We are far from the 55-60% proportion (this is how much the five biggest retailers have in Hungary) seen in food retail trade, which is otherwise a medium level of concentration. Just Tesco itself has an about 4% share of the total Internet turnover (according to Euromonitor). Online retail trade itself also has a 4% share in the total Hungarian retail trade universe. Its position is dominant within non-store retail trade, makes up four-fifth of the total. A not yet dominant but spectacularly growing sector of sales is mobile shopping. According to experts, its presently 5% share of the total Internet sales will rapidly increase to more than the double, 17%, by 2021.

With regard to the spread of the omni-channel models discussed in this study, we think that the spread of online players with big turnover and

Table 16 | Development of the Number of Retail Units between 2016 and 2021

(shops)

	2016	2017	2018	2019	2020	2021
Food and Non-specialized Retail with Food	40 603	39 845	39 149	38 583	38 149	37 787
Non-food	85 851	84 034	82 519	81 156	80 038	79 113
Miscellaneous manufactured goods	4,865.0	4 719	4 594	4 479	4 380	4 305
Luxury	4	-	-	-	-	-
Shops total	131 319	128 598	126 262	124 218	122 567	121 205

Source: Euromonitor International

capital intensiveness based on physical shops will begin in a few years. With a different channel policy and appearance, but all of it in the interest of customers.

8.2 Technical Innovations

"Digital trade is not about shops moving to the virtual space, but about the complete transformation of processes, and a new ecosystem being created. Data use will come into prominence: self-service technologies, forecasts about products in stock, automated warehouse depots will appear in shops, and price optimization software also has great potential." (Petra Háhner)

The following developments have the biggest influence on retail trade from the technological side:

- Big data technological environment from consumers' side
- Mobile shopping applications
- Big data from the supply chain side
- Mobile and wearable technology
- Internet of Things, IoT, that is the network of tools capable of communicating with each other

However, as regards the near future, the following technological developments will be dominant:

- Shops without cashiers
- Augmented reality
- Virtual reality
- Face recognition
- Robotics

The following part discusses the innovations with the biggest effect and their most important characteristics.

Big Data Management and Technological Environment

The amount of available information at every single point of the supply chain about consumer behaviour, shopping habits, characteristics is so big even today that the efficient management of it is not possible any longer with traditional tools (for example CMR systems). This is why an IT environment that can automatically process this data and – among other things – can track and support consumers' behaviour patterns, information gathering habits, customer journeys and decision making mechanisms is needed.

It can support the optimization of the whole supply chain from the retailer side, help the marketing and sales campaigns, support planning, pricing, the logistics processes, stock management and the flow of goods.

Data asset management is not very developed in the Hungarian retail trade, however, it has development potential that can determine the efficiency of retail trade in the long run. Professionally, Big Data has three components: the constantly generated amount of data, the speed of incoming data and that of its processing, and the diversity of the procession, which means the data has to be constantly managed, classified, and structured.

Perfect segmentation is made possible for retailers on the result side in this way, and the sending of personalised marketing offers, automated text messages on the basis of the life style, daily habits, daily routine of the customer is possible, as well as personalised sales and client management activities, but he possibilities are endless. The efficient management of the data asset may bring about huge innovations and savings on the stock management side, which may make it profitable even in the short run.

Mobile Shopping Applications, Shops without Cashiers and Wearable Technologies

They are based on large-screen smart phones that make it technically possible to shop and pay through mobile applications, what is more, they offer a more intensive shopping experience in the digital space as well. This certainly changes customers' behaviour, too. The shopping applications of retail and service companies make it possible for customers to access the whole service selection of the given company through their own mobile devices, thus ensuring direct communication, orders and payment as well. The advantages of shopping applications are security and simplicity,

at the same time it is important that it should not only be a "shop window," that is, only a web site on the mobile but a separate platform that uses and takes into consideration the characteristics of the mobile device and the mobility of the customer. According to a survey conducted by MasterCard in 36 European countries (Mobile Top App Index 2015), approximately 65% of applications belong to the following categories: food delivery, taxi, purchase of public transport tickets (train, bus etc.), media (books, journals etc.), accommodation, parking and entertainment (cinema, theatre, festivals, sport events etc.).

In addition to shopping applications, mobile wallets constitute a separate category (digital or electronic wallets). The mobile wallet is a new generation service that turns the smart phone into a virtual method of payment with the help of an application. The NFC (Near Field Communication) technology ensures it most often, which is capable of data transfer within a few centimetres. So it is enough to pass the phone near the reader and communication takes place instantly. Mobile wallets are most often used for payment, but they are capable of handling participation in loyalty programmes, discount coupons may be downloaded to consumers' phones, and it is capable of handling several convenience services as well (entry/admission etc.). According to estimates, all loyalty cards and other loyalty tools will become virtual soon and will be parts of the mobile wallet. It is important to know that not only smart phones, but even smart watches or other wearable pieces of technology can also be turned into such wallets.

Several financial or telecommunication service providers have developed their own mobile wallets by now. The Masterpass service of MasterCard is among them, which is suitable for payment not only online and within the application, but offline touchless payments as well. Telenor Magyarország also offers this technology as of May 2017 in cooperation with Budapest Bank. Similar solutions are provided by the VISA Checkout, Android Pay, Microsoft Wallet, Samsung Pay or the Apple Pay systems. These are the latest developments from 2017, most of them will probably start spreading in the near future.

Although the NFC technology has not become so popular in recent years as it was predicted (mostly because of the undeveloped point of sale infrastructure), it is still forecasted that payment through mobile devices is about to see a boom. At least in Europe and the United States, since the Far East has already introduced their own mobile payment solutions (GfK TechTrends 2017). Mobile payment is already one of the most widespread payment solutions in China, practically in the case of street vendors as well. Instead of checkout tills, a printed QR code has to be scanned at some point along the consumer journey (for example at a restaurant table) using one of the smart phone applications, and the amount is instantly transferred to the service provider from our mobile wallet. This is such a widespread method in China that, for example, the local WeChat application managed more transactions in a day in 2015 than PayPal in the whole year (!).

The built-in, automatic payment methods make it possible to develop shops "without cashiers," which makes shopping faster (no queues) and simpler.

An example to be followed could be Amazon's shopping application, Amazon Go, which also offers the perfect shopping experience: through the application, which automatically registers the customer upon entry, customers can look at anything, take them off the shelves and leave without having to pay "separately" thus saving themselves the time spent queuing, the stress since the application continuously registers and charges them for the selected products.

The Internet of Things, IoT

The Internet of Things is intelligent tools connected to a network that is capable of recognising relevant information and communicate it to other tools. One of the first areas of use is smart homes where the different tools are capable of communication with each other and the residents as well. This continues the fusion of the online and offline world in the area of retail trade.

According to Gartner's estimate, the presently 6.4 billion pieces of smart devices (in 2017) may rise to 9-15 billion by the end of the year, which does not include phones, tablets and computers (M2M Zona: The Internet of Things: What Is Expected in 2017?).

The essence of the innovation is that the local data processing built into the smart devices

(edge computing) intensifies and strengthens both the operational efficiency and the productivity as well as the cooperation with consumers. For example, it makes stocking of products real-time and automated, but the same way, it will be able to individually communicate with consumers. Perfectly personalised real-time information and advertisements can reach customers with its help considering their actual location, needs and even the current weather conditions. The data stored on the consumer's smart device and Big Data in the retailer's system are connected, and personalised service, or personalised marketing can be realised on the basis of it.

This may be connected to an indoor positioning system that tracks consumers' movement. Since GPS is incapable of indoor tracking, a new technology (Bluetooth Low Energy, BLE) is used for this purpose, which is a server-based positioning system. This records, analyses consumers' behaviour within the shop and draws conclusions from it for retail and marketing purposes. For example, if a customer spends fifteen minutes in the smart television department but does not buy any of them, the system will draw the conclusion that the customer still needs a television set, but has not decided yet. If it can also register at what price level sets the customer stopped at, then there is a chance for targeted, personalised communication (advertisements, special offers etc.).

Augmented Reality, Virtual Reality

It is expected that Augmented Reality (AR) is the future as regards consumer experience. Augmented reality is the normal reality augmented with different textual, visual, graphical etc. additional information in a digital way, thus the recipient can see the messages including both reality and the targeted messages in a complex virtual framework.

Another side of it is Virtual Reality (VR) which solely includes a virtually created environment. Virtual reality started to spread widely with the introduction of PlayStation VR in 2016, and since then all the communication, entertainment electronics and telecommunication companies (Facebook, Google, Microsoft, Samsung, HTC etc.) have been looking for opportunities to actively use virtual reality. With its PlayStation VR Headset, Sony managed to offer an experience for the first time, where users can become, more than ever before, absorbed more freely and interactively in selected contents, geographical environments, what is more, can physically move in the virtual space. Such a development is extremely expensive and complicated for the time being, its daily use is yet to be seen. Its role in retail may be huge by creating the perfect consumer experience. Let us just consider the example that we can (could) do our shopping from home as if we were physically in the shop, we could not only see but hold, touch and feel the products, and we could freely take them off the shelves and turn them around. This combines the experience of the physical shopping environment with the comfort and speed of online shopping.

Although it is the (distant) future in its entirety, virtual reality can already create some elements of it. When the important route figures appear on the windshield of the car (head up display) or the display of our phone "recognises" and displays the star constellations in front its camera, or the 3D picture of our television set are all "enhancements" of the reality with digital elements.

Microsoft's HoloLens solution may be the most promising platform for creating augmented reality. We can be in an environment built up from a holographic application through a pair of glasses, in which we may freely move, what is more, several users may enter the same environment simultaneously and can interact with each other there. This is augmented and not fully virtual reality in the sense that our own physical space can be virtually organised, and we can move in there.

Face Recognition, Robotics

Face recognition is one of the most dynamically developing IT areas. The technology is already available, although for the time being, it is (mostly) used in the area of security policy. The present recognition systems already identifies faces on the basis of 3D algorithms and at least a hundred times more accurate than the initial ones fifteen years ago.

Their role can be huge in retail as well, they may perform customer identification, even registration, and they may generate the perfect personalised customer information together with the indoor positioning system and Bid Data processing.

Its application in retail is not yet possible due to data protection (inviolability of private life) factors.

Robotics, industrial automation is already the application of the present, in the age of self-driving cars almost all types of human labour can (could) be substituted with automated machines. Even Hungarian hospitals have automated cleaning machines, but the automated checkouts introduced in more and more retail shops are somewhat part of it.

Their connection to networks has also been realised through the Internet of things.

3D Printing

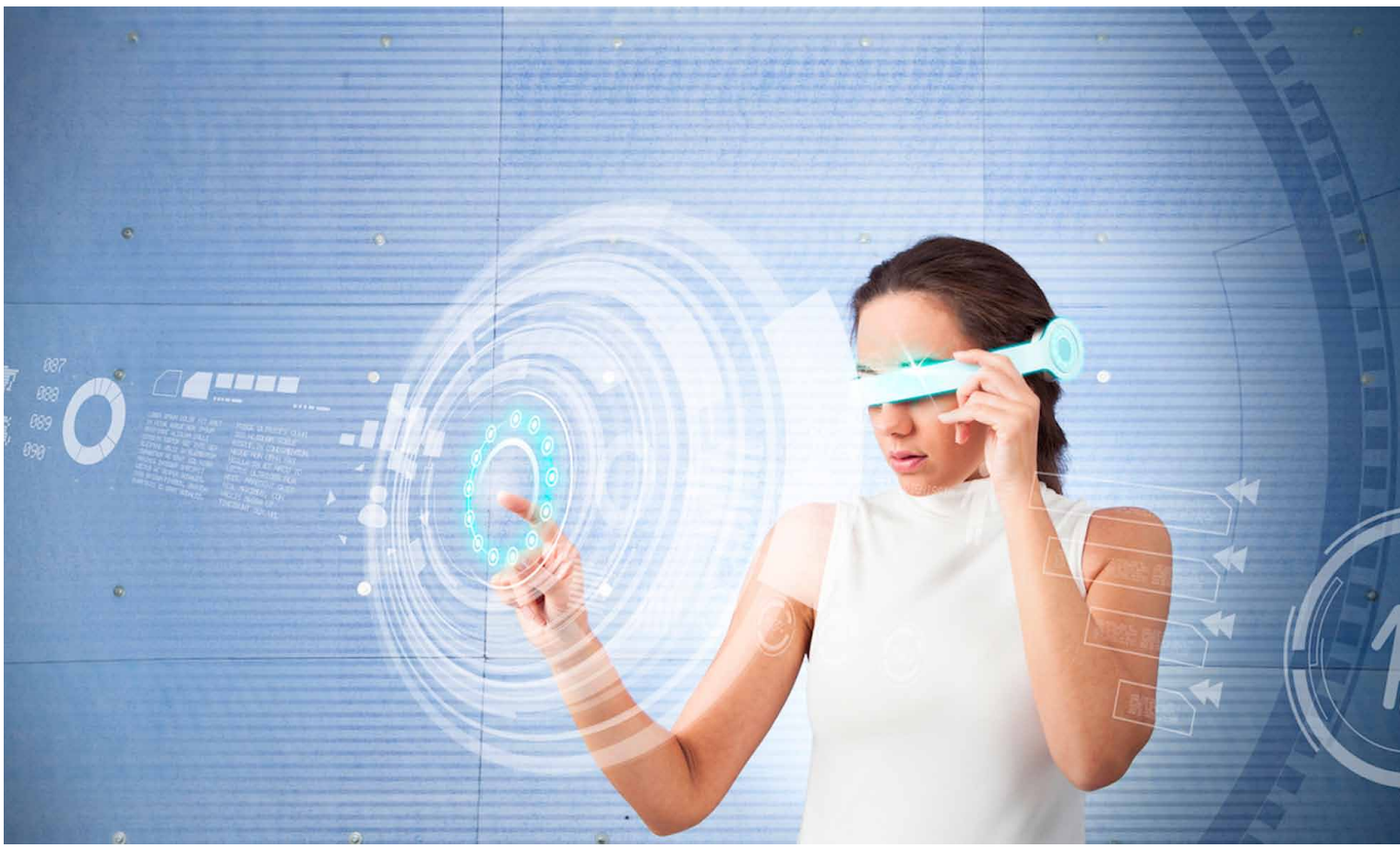
The widespread use of 3D printing is clearly the technology of the future. Its role and importance in retail can be outstanding. Its daily use may even replace the sale of several products, which may cause a fall in both manufacturing and retail trade.

According to expert estimates and forecasts (Ovum: The Future of E-commerce: The Road to 2026), however, 3D printing will not endanger retail trade in the near future. Its use will be worth the money when it can produce at least the original industrial quality cheaper or/and simpler, which it will surely not be able to do in great volumes in serial production.

According to the present scenarios, it will mostly spread in the case of unique, personal objects (for example gifts), and simple components. The manufacturer prices of everyday products, no matter how simple it is to manufacture them (e.g. nails, screws etc.), are so low that it will not be worth "printing" them at home.

However, the area where it may have a role is collaborative consumption, where it is worth making specialized products with 3D printers at the community level.

And this is just a list of some presently used technologies. We are sure that we will see new solutions year by year that will redefine our notion of trade.



9 ANNEX

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