SHAPING THE FUTURE: OPPORTUNITIES AND CHALLENGES OF E-COMMERCE

Editors

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PREFACE

The book titled ***"Shaping the Future: Opportunities and Challenges of E-commerce"*** is the result of an entire year's work of a select research team *(Andreja Cirman, Barbara Čater, Matej Černe, Jasmina Dlačić, Polona Domadenik, Daša Farčnik, Matjaž Koman, Mitja Kovač, Denis Marinšek, Marko Pahor, Irena Ograjenšek, Melita Balas Rant, Tjaša Redek, Robert Robertson, Nada Zupan and Vesna Žabkar*), and the students of the XXVth generation of the International Master in Business and Administration Programme (IMB) at the Faculty of Economics in Ljubljana.

The book consists of six parts. The first part of the book deals with the importance of e-commerce for business. The second part discusses the role of e-commerce across the world, followed by the presentation of best practices on B2B and B2C markets in the third part. The fourth part presents selected case studies, focusing in the transformation of the business models. The fifth part discusses the changes in consumers' behaviour and its impact on e-commerce. The sixth part highlights broader impacts of e-commerce on the society and studies policy proposals to support a development of a sustainable e-economy and e-society.

Students from the XXVth IMB generation invested a lot of hard work, their knowledge and dedicated a lot of their time. Their contributions were invaluable for the preparation of this book. The work could not have been finished without the expert work and great dedication of our aforementioned colleagues. Many thanks to *Tanja Povhe* for proofreading the work, *Ciril Hrovatin* for the technical editing and graphic design, and *Laura Pompe Sterle* for the cover design. *Nika Lozej* provided us with invaluable technical assistance. Many thanks also to colleagues from the Newspaper Finance for handling the final execution of the book.

Ljubljana, November 2018

Editors

I.

THE ROLE OF E-COMMERCE FOR BUSINESS

Polona Domadenik, Matjaž Koman, Tjaša Redek

NEW TECHNOLOGICAL TRENDS SHAPING A DIGITAL BUSINESS FUTURE: AN INTRODUCTORY NOTE

Introduction

The world economy today is increasingly affected by digital technology, which is changing the society, challenging business models and disrupting entire industries (Oesterreich and Teuteberg, 2016; Rüßmann et al., 2015; Scalabre, 2018). Digitalization is creating opportunities for entrepreneurs and businesses, bringing benefits to consumers. E-commerce[1] is one of the most prominent features of the evolving digital economy and the growth of global e-commerce is an illustration of how the increased use of information and communications technology (ICT) is reshaping production and trade, with significant implications for developing countries (Koh et al., 2017; Scalco, 2017).

Amazon was among the first e-commerce companies worldwide, starting to sell its products (books) on the Internet back in 1995. 10 years later, Amazon's revenues reached $8.5 billion, $107 billion in 2015 and $177.5 billion in 2017 (Statista, 2018), 2.5 times as much as Slovenian GDP. With its development, Amazon illustrates the rise of a new, online economy in the context of retail to customers (B2C), as well as on the business-to-business market (B2B), both globally and in Slovenia. The chapter highlights the main trends in e-commerce business around the world, their impact on business models' transformation and regulatory challenges.

1 OECD defines e-commerce transaction as the sale or purchase of goods or services over computer mediated networks (Internet). Payment and delivery of the goods or services can be done offline. Orders received /placed by telephone, fax or normal mail are excluded (OECD in Malecki and Moriset, 2008).

1 E-commerce and the era of "digital business"

"Speed, agility and innovation" is the new business imperative (Axway, 2015). The Fourth Industrial Revolution introduced a number of new technologies, from cloud computing, augmented and virtual reality, cyber-physical systems, Internet of Things, big data, to robots, digital twins, and many others (Scalabre, 2018) – all with one common "digital" denominator. As a consequence, businesses and us, consumers, as well as our behavior, have been changing dramatically. Business models have started to embrace and exploit the benefits of new technologies, the intensity of (now more than ever) globalized competition has strengthened, consumers have gained more power in the market and become influencers (Černe et al., 2017).

Global e-commerce in the business-to-business market reached $7.7 trillion in 2017, having increased by 7.1 percent per year since 2013. The largest part of B2B e-business belongs to Asian-Pacific countries (80%), followed by the USA (13%) and European countries (4%). Countries with the largest B2B marketplaces are China, Japan, South Korea and the USA (UNCTAD, 2018).

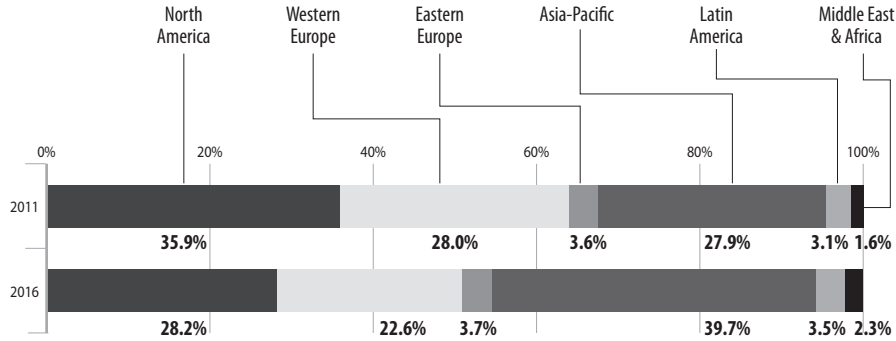
Business-to-consumer sales (B2C) amounted to just over $2.1 trillion (10 percent of the overall global estimate) in 2017 and almost doubled in comparison with 2013 ($1,2 trillion). Recording a 120 percent average growth a year in e-commerce since 2003, China has become the world's largest business-to-consumer e-commerce market ($617 billion), followed closely by the United States of America ($612 billion). The value of e-commerce in China is forecasted to reach a milestone of $1 trillion by 2022. The United States, on the other hand, reported the largest business-to-business market worth more than $6 trillion, well ahead of Japan ($2.4 trillion). In 10 major e-commerce markets 34 percent of GDP (on average) could be attributed to e-commerce activities (UNCTAD, 2018). Technological development and related investment in e-commerce will stimulate the growth and support exploiting economies of scale also in the future.

Most e-commerce is domestic in nature. In EU28 20 percent of businesses were selling online within the country and only 8 percent to other EU countries in 2016 (Eurostat, 2018). Cross-border online business-to-consumer purchases in 2015 accounted for 1.4 percent of total merchandise imports and were equivalent to about 7 percent of domestic B2C e-commerce (UNCTAD, 2018).

1.66 billion people shopped online in 2017 and the number is expected to reach 2.1 billion in the next four years (Statista, 2018). The highest increase in

B2C e-commerce could be seen in the Asia-Pacific region (Figure 1), where the e-commerce market increased by 30 percent in 2017 (eMarketer, 2017). The prevalence of online shopping is the highest in China and Korea, where over 17 percent of total retail transactions are made online. Also in the Western markets e-commerce has been increasing much faster than total retail although some countries are lagging behind (Euromonitor, 2018).

Figure 1. B2C e-commerce sales, by region in the period 2011-2016



Source: eMarketer, 2017.

There is a number of factors that act as potential constraints on e-commerce. Economic barriers include inadequate ICT infrastructure and use, unreliable and costly power supply, limited use of credit cards, lack of purchasing power and underdeveloped financial systems. Sociopolitical barriers include weak legal and regulatory frameworks, cultural preferences and reliance on cash transactions. Cognitive obstacles include a low level of ICT literacy, awareness and knowledge related to e-commerce among both customers and firms. To assess readiness of countries for e-commerce UCTAD developed a new B2C e-commerce index. The top 10 most developed countries according to that index are Luxemburg, Norway, Finland, Canada, Sweden, Australia, UK and Korea (UNCTAD, 2017).

The differences in using e-commerce in B2C and B2B markets among EU economies are significant. The largest share of e-commerce is recorded in Ireland, Belgium and the Czech Republic (over 30 percent of sales). The differences are caused primarily by a lack of appropriate regulations in the business environment and a lack of supporting technological services (digital payment, access to the Internet).

In Slovenia 80 percent of the population use the Internet on a daily basis, while in the EU the number is 85.2 percent. Slovenian companies, on average,

earn 16 percent of their revenues online, which is on average 2 p.p. lower than in other EU firms. E-commerce in Slovenia is mostly widespread in tourism, publishing and the ICT repair sector.

Online sales to customers (B2C) in Slovenia is increasing but still substantially lower than in many other EU countries. The study (Pahor et al., 2018 in this book) on consumer online shopping behavior in Slovenia, Austria, Germany and Switzerland revealed that personal, demographic, socio-economic and geographic characteristics explain the differences. Another factor of differentiation between countries is the national presence of large global retailers - well-known online retailers do not necessarily offer customized national sites.

Consumers, in general, appreciate comfort and time effectiveness when buying online. Also the payment methods represent a factor of differentiation that attracts especially Slovene buyers, although they spent less money online than others. Highly educated, well-off (above average wages) consumers, who are also frequent Internet users, represent the most important on-line customer group. But on average, customers primarily buy cheaper goods online, while still preferring the more traditional sales channels for more expensive purchases. This represents a specific challenge for companies producing more expensive goods.

Slovene online buyer is, on average, demanding, expects a wide assortment, an efficient and fast shopping interface and low shipping costs. Customers would increase their online purchases in case of lower shipping costs and same-day delivery. The most popular products on the Slovene online market are books and home decorations, while food is more popular in German speaking countries (Čater et al., 2018 in this book). Additional discounts are another factor of attraction, implying that also online stores need to increase their efficiency and cut costs, improve shipping (Amazon is setting the new standards in the industry), and rely on both economies of scale and economies of scope for further technological development (Internet of Things). E-commerce is especially popular among Millennials and Generation Z, for whom price and delivery are the most important factors. Therefore, a click-and-mortar store represents an important concept to be considered in the future, with ordering online and picking up in a preselected brick-and-mortar store.

The future of the traditional brick-and-mortar store has become grim, in view of the rising popularity and practicality of online shopping. Nonetheless, traditional stores have several advantages over the modern ones, primarily the direct hands-on experience of the product, as well as immediate owner-

ship of the product, lower risk of payment fraud, and easy returns. However, brick-and-mortar stores face high fixed cost, lower adaptability to change, and higher dependence on the personnel, as well as labour market regulation (such as work-time regulation). And it is these exact disadvantages of the traditional stores that make the online stores excel. Low entry cost, easier access to foreign markets, digital marketing, practical, time efficient and user-friendly shopping are some of the major advantages. Furthermore, also efficient communication and integration along the value chain, low stock and low associated costs, as well as customer data analytics represent important advantages. It is nonetheless true that online competition is very fierce and highly dependent also on consumer trust. The companies also face numerous regulatory issues (especially when selling abroad) and security threats. Entering (just) the e-market is also risky, which is one of the reasons why companies are embracing the omni-channel strategy, selling both in brick-and-mortar as well as on-line stores. Interestingly, even large global players (e.g. Amazon) are "returning to tradition", opening brick-and-mortar stores and consequently embracing the omni-channel approach. It has become very obvious that buyers appreciate the opportunity of immediate product experience, easy returns, as well as immediate ownership, which e-market models fail to provide. Slovenian buyers often inspect products online, but rather buy in a traditional store (webrooming).

2 The broader impacts of e-commerce

The use and application of ICT infrastructure has an impact also on the global value chain and increases the productivity of the enterprises as it reduces transaction costs, and enables economies of scale and remote delivery of a wider range of goods and services. For example, the automation of customs declarations has helped shorten clearance and transit times. Access to ICT platforms and devices may enable sellers to reach more potential customers in domestic and foreign markets in more targeted ways, often at a lower cost than through traditional channels. Furthermore, suppliers that rely more on e-commerce may be able to cut delivery costs, especially for digitally provided content. E-commerce can help businesses, in particular small and medium-sized enterprises, overcome barriers to their expansion, engage in peer-to-peer collaboration in innovation, and use alternative funding mechanisms and means to build verifiable online transaction records that may help attract new customers and business partners.

Greater diffusion and the use of online tools (online platforms like Alibaba) increase the scope of export, in terms of a higher number of exporting firms, markets reached and sales volume. Digital transformation, therefore, has led to new business models with very low marginal transaction costs but with high upfront fixed costs of setting up an operating platform. The economics of the Internet have changed the usual market transactions between buyers and sellers into operating platform markets where a platform owner has two different customers, typically a user of the service and an advertiser who wants to reach the user. Platform owners charge the service (information about their users) only to advertisers while providing free services to their users for information exchange. Scale economies do not exist only on the supply but also on the demand side of the market. The network effect (social media sites or digital payment systems) increases the value of services with the increasing number of users, creates network externalities and also leads to lock-in effects; switching to different social media platforms imposes a very small actual cost on the user but would require a collective action to maintain the same level of utility.

Digital transformation has contributed to a range of e-commerce players that have emerged in the recent years, offering new payment solutions, e-commerce platforms and innovative logistics. The retail industry is an example of an industry that has been under tremendous pressure. The most evident case of disruption in the industry, Amazon, currently offers more than 500 million products and home delivery within two hours. While in the past customers in the B2C market used to come to stores to get information about products and prices, today's shoppers come into stores well-informed and traditional retail no longer holds an advantage in this context. To stay "in business" and prosper, businesses have to develop a new competitive edge.

New technologies do not come without challenges. Countries should deepen their understanding of the interface of trade logistics, digitalization and e-commerce. New technologies may help overcome logistical bottlenecks. For example, they can help navigate traffic by calculating the fastest routes or identifying the most fuel- and time-efficient pick-ups. International Post Corporation (2018) conducted a survey of cross-border shopping behavior, which showed that the most important delivery elements are clear information about delivery charges, simple and reliable return process and free delivery. Based on 31 markets surveyed, Amazon, eBay and Alibaba accounted for 56 percent of the most recent cross-border e-commerce. A recent research by International Trade Center and AliResearch (ITC, 2018) reports that online and offline trades share similarities in terms of the main products and markets, whereas e-commerce

focuses on higher value-added and innovative products and offers opportunities to expand and diversify export. MSMEs that use online platforms are around five times more likely to export than those in the traditional economy.

3 Policy initiatives and regulations

An enabling digital environment in many countries remains deficient and disables translating the benefits of new technologies into tangible and inclusive trade and growth opportunities. Moreover, poor infrastructure and a lack of economy of scale due to fragmented cross-border markets substantially affect the ability of micro, small and medium-sized enterprises to participate in digital marketplaces and global value chains. In 2017, the European Commission set the D4D (Digital for Development) policy dedicated to mainstreaming digitalization and promoting the principles of the European Digital Single Market in developing countries. The four main priorities within D4D are assuring affordable broadband connectivity, digital literacy and skills, promoting digital entrepreneurship, and using digitalization as an enabler, among others deploying also e-commerce. Trade promotion organizations should embed digital tools in the services they offer to small businesses. For instance, online platforms could be better leveraged to present businesses internationally and reach desired communities, facilitate data collection and analysis, and assess customer needs. There should be a greater use of e-market solutions and social media platforms in events such as trade shows and in other efforts to facilitate e-commerce. Public-private partnerships can also be useful in this context.

The evolving e-commerce and digitalization have raised many questions at the policy level, mostly related to the concerns of whether the widespread use of new technologies, automation and online platforms will lead to job losses, growing income inequality and greater concentration of market power and wealth. There is also a risk that they will have negative impacts on the bargaining power of users and consumers and will result in the loss of privacy. Online platforms largely influence the rules of engagement in the e-marketplace, affecting inclusion, competition, consumer trust, applicable norms and dispute resolution. Moreover, new business model raises difficult questions about competition policy. Because platforms often do not charge for a service, they do not actually exert monopoly power over users. But they could do so over vendors buying advertising space. Just four companies – Google, Facebook, Baidu, and Alibaba – now account for half of all digital advertising revenue. Furthermore, dominant platforms could exert monopsony power (because there is only one

or just a few buyers). For instance, book publishers depend on Amazon for a crucial share of their total sales. Therefore, the key for global policy makers is to understand how the ICT ecosystem works in practice and drive well-informed and future-oriented policy approaches based on identifying not only the opportunities and barriers for digital trade but also potential threats at supra-national, international and national levels.

About the contents of the book

In the next decade, e-commerce and further digitalization of businesses will shape a new, different, fast, innovative and competitive world. This book highlights selected relevant topics on e-commerce. First, to illustrate and stress the importance of the e-momentum, the trends are presented, with the focus on e-commerce in the biggest developed markets and in Slovenia. Later, the well-known successful models of Amazon and Alibaba are discussed, and two Slovenian companies, JUB and Petrol, are studied to determine the nature and potential of e-commerce in the companies and their respective industries. Consumers have been empowered by the Internet, becoming not just informed buyers but also influencers, who through their shared experiences shape the consumers' decisions. An investigation of consumer behavior and motives in online stores in several countries provides interesting insights for the companies. The digital world has also been changing our societies and economies to a very large degree. The last two chapters investigate the broader dilemmas of e-commerce, providing inputs for policy challenges as well.

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E-COMMERCE REVOLUTION AND ITS CURRENT AND FUTURE CHALLENGES

Introduction

We are currently facing the Fourth Industrial Revolution, which is fundamentally changing our human experience in terms of the way we relate to people, the way we work or simply the way we live. Today technology has become a necessity; therefore, its application in business and commerce is no longer a matter of choice but a matter of compulsion. In this chapter, we focus on digital platforms which are making the on-demand economy possible by creating entirely new ways of consuming goods and services. The broad usage of digital platforms has contributed to a digital change that affected almost every business - the rise and development of e-commerce. Today the retail and e-commerce industry are moving at a lightning speed. Based on a research in the USA, 79 percent of the respondents have made at least one online purchase (Fingent, 2017). Moreover, the handheld devices that can access the Internet are revolutionizing e-commerce even more by introducing the much-improved stage known as m-commerce.

The chapter starts the discussion by exploring the transformation from traditional to e-commerce business as a result of the changing consumer habits. In the second part, the factors that are mainly influencing the change of business models through the usage of e-commerce, as well as the importance of being omni-present, are analysed. Besides the benefits that the new trend of e-commerce is bringing, we are also looking into the challenges that come along in terms of trust, readiness, security and regulation. In conclusion, a summary of our main findings and ideas is provided.

1 From brick-and-mortar to e-commerce

Based on Iqbal (2013), e-commerce can be defined as the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders. According to the OECD (2011), the e-commerce includes four major types of transactions based on the parties included: between enterprises (B2B), households (B2C), individuals (C2C), government (B2G), and other public or private organizations. To be classified as e-commerce they should be made over the web, extranet or electronic data interchange.

B2B, the largest category of e-commerce, can be defined as the transaction between businesses, as for example between a wholesaler and a retailer or between a manufacturer and a wholesaler (UNCTAD, 2015). Businesses mainly use e-commerce to lower transaction costs of conducting business and to make savings in terms of time and effort when conducting business (Iqbal, 2013). Similar to B2B is B2G, except that instead of business the customers are government entities.

B2C can be defined as the sales by e-commerce enterprises to end-customers. In 2015, China emerged as the largest global market for B2C e-commerce. However, the market is still expanding rapidly, especially in Asia and Africa. Consumers can be reached by a wide range of channels, including dedicated e-commerce websites, social networks, crowdsourcing platforms, mobile applications, etc. (UNCTAD, 2015). Examples of B2C are the wildly popular music application Spotify, as well as eBay, Amazon and Alibaba, which are also C2C businesses.

C2C is simply commerce between private individuals or consumers. Usually there is also a platform offering potentials for casual enterprises to engage in e-commerce (UNCTAD, 2015). This type of e-commerce can come in three different forms: auctions (which allow online real-time bidding on items being sold on the Web), peer-to-peer (a protocol for sharing files between users used by chat forums similar to IRC), and classified ads at portal sites (an interactive, online marketplace where buyers and sellers can negotiate) (Iqbal, 2013). There are plenty of successful C2C businesses, such as Airbnb, Uber, Alibaba, eBay, Amazon, Shopify, Letgo, and so on.

There is no doubt that one of the ways e-commerce is revolutionizing the traditional brick-and-mortar is by liberating the users or consumers from the need

to visit an actual store (see Table 1 for the main differences between brick-and-mortar versus e-commerce retail). The advent of Internet-based e-commerce over the past years has also given companies an unprecedented business opportunity. For instance, Uber, the world's largest taxi company, owns no vehicles; Facebook, the world's most popular media owner, creates no content; Alibaba, the most valuable retailer, has no inventory. As a result, brick-and-mortar businesses find it difficult to compete with web-based businesses because the latter usually have lower operating costs and greater flexibility (Iqbal, 2013).

Table 1. Brick-and-mortar vs e-commerce summary

Presale phase	**E-commerce**	**Brick-and-mortar**
Acquire product information	Web pages	Magazines, flyers, online catalogs
Check catalogs, prices	On-line catalogs	Catalogs
Request item	E-mail	Printed forms, letters
Sale phase	**E-commerce**	**Brick-and-mortar**
Check product availability and confirm price	E-mail	Phone, fax
Generate order	E-mail, web pages	Printed form
Send /receive order	E-mail, EDI (Electronic Data Interchange)	Fax, mail
Prioritize order	On-line database	
Check inventory at warehouse	On-line database, web pages	Phone, fax
Schedule delivery	E-mail, on-line database	Printed form
Generate invoice	On-line database	Printed form
Receive product	Shipper (unless it is electronic)	Shipper
Confirm receipt	E-mail	Printed form
Send/receive invoice	E-mail, EDI	Mail
Post sale phase	**E-commerce**	**Brick-and-mortar**
Schedule payment	EDI, on-line database	Printed form
Send /receive payment	EDI	Mail
Customer support	E-mail	Phone

Source: Iqbal, 2013.

This transformation in the retail landscape has occurred due to the digitization of shopping and the shift in consumer buying behaviour. Consumers today are considered to have low attention spans, shop mobile first, use peer recommendations and conduct research before making a purchase (Forbes, 2017). Furthermore, based on Forbes (2018), research studies have found that consumers browse

products on mobile devices for the best price while in a brick-and-mortar store, and compare products online to find the lowest price. Interestingly, 64 percent of the online sales made on Black Friday and Cyber Monday were made through mobile (also known as m-commerce), while only 36 percent through desktop (Fingent, 2017). Moreover, this shift in retail provides an opportunity for retailers to improve the overall shopping experience. Even though online shopping seems convenient, customers are still looking for social and experiential experiences achieved in a physical store. Consequently, creating a unified, seamless experience between digital channels and brick-and-mortar is what will bring the retailers a competitive advantage in today's digital economy.

Still, the main question remains: What would be the optimal combination between the two? Many companies are struggling to provide answers to this question. For instance, one of the goals of Adidas is to make the right fusion of online and offline. With the usage of the concept "think outside the box" they try to provide in-store creative experiences for the customers. Such an example is the stadium-inspired London based outlet, which is highly interactive and allows customers to use features like running machines which analyse gait and suggest trainers accordingly. The Adidas philosophy suggests that online sales are driven by in-store experiences. Even though it is hard to assess the effect of the improved in-store experiences due to the variety of revenue streams for such big companies, Adidas reported a 18.6 percent increase in the net income for the first quarter of 2018 (after the outlet was open), compared to 2017 (Adidas, 2018).

Table 2. Are retailers really meeting the growing consumer demand?

Consumer Demand	Retailer Supply
• **47%** expect real-time promotions from retailers. • **42%** of shoppers found it easy to complete a purchase using a mobile device. • **37%** of the customers desire to use a shopping list or an in-store navigator. • **42%** of the customers expect an automatic coupon or a discount credit. • More than **60%** of consumers want 1-3 hour shipping options. • **77%** of the consumers want guaranteed weekend or after-hour shipping. • **37%** of the consumers want to order out of stock goods.	• Only **28%** of the retailers are able to provide this. • Only **53%** of retailers had optimized their websites for tablets. • Only **31%** of retailers offer a mobile shopping list, while only 4% provide virtual smartphone apps to help in maneuvering around the store. • **16%** can automatically credit coupons and discounts. • Only **20%** of retailers are offering this option. • Less than **35%** of retailers have the option. • **43%** provide the ability to order out of stock items via mobile.

Source: Fingent, 2017.

However, the companies that will try to keep up with the online trends will be facing challenges and adjustments toward their production, revenue and cost stream, distribution and communication channels or even their entire business model. The availability of information and choices will also contribute to a vast new challenge – to survive the global competition and to match the customer demand with the retailer supply (see Table 2 for details). In order to satisfy the increasing demand for technology in online retail and wholesale, implementation of omni-channel, multichannel, marketing tools and cloud e-commerce solutions should be considered (Forbes, 2018).

2 Factors influencing the change in business models through e-commerce

Even though e-commerce is in its core primarily dependent on global economic fluctuations, which shape the growth and formation of any transaction of goods and services, socio-cultural, political and supranational factors also strongly manipulate its market manifestation and final distribution. For each organization that acts as a player on the global e-commerce market, creation and application of political standpoints is inevitable in order to establish credible brand management, whatever the future holds. Equally important, cultural views of its target consumer group play the role of a moderator in the earliest stages of business development, since the initial awareness and consequential knowledge of the e-commerce relate to the key challenges that the industry faces. Of course, supranational institutions are traditionally viewed as the ones with the most powerful influence on the future trends, since they are not subject to attitudes of individual governments and organizations (Raghunath and Dhar Panga, 2013).

Table 3. An overview of the main factors

Group of Factors	Encouraging Factors	Discouraging Factors
Economic factors	CRM systems providing dynamic adjustment towards customer wants, optimization of product portfolio saves physical space	High cost of introducing a reliable communication and supply network
Socio-cultural factors	Numerous means of payment	Skepticism due to established customs, store as a gathering point
Political factors	Government interference	Gradually restraining large incumbents, while decelerating the newbies
Omni-channel distribution	Consistency through channels, ability to forecast and accelerate customer's next buy	Dispersion of marketing costs making it difficult to assess key channels

Source: Own work.

2.1 Economic factors

A significant change brought by the ever growing e-commerce is the ability of the customer base to influence and communicate more extensively how their products and services are made in order to fit their needs more accurately, yet introducing a degree of complexity when it comes to the increase in economic value. This kind of structural changes for all incumbent companies wanting to keep or enlarge their market share will demand a rapid pace of introducing a new level of dynamism, when approaching to innovation in delivering a leading customer experience. In a brick-and-mortar trade it may always seem sensible for companies to enlarge their store assortment in order to maximize their customer pool. However, a single product may include multiple versions which demand more space with no additional benefit guaranteed. To illustrate, placing a plethora of various wines will not provide an equal impact compared to e.g. various car tyres, since the value per square meter is miles apart. Hence, selective transitioning towards e-commerce can reduce the cost of storing the product whilst keeping the diversity. In order to satisfy the customer demand, more inventory locations are needed, which allows the supplier to hold the inventory on fewer locations until it is called upon to one specific location (Mathien and Suresh, 2015). Reporting on that, one of the initiatives is to improve mobile experience, with 45 percent of merchants planning to invest in mobile experience (Fingent, 2017). Naturally, a long-term capital investment towards a reliable infrastructure will demand prioritizing technology with the purpose of decreasing their operating costs and therefore boosting their profit. Ideally, an end-to-end type of management will offer the highest level of organizational control, especially in facilitating the interaction among the co-creators of a supply chain in which guidance and standardization play the central roll on how efficient and purposeful an e-commerce business is (Raghunath and Dhar Panga, 2013).

2.2 Socio-cultural factors

One of the most important characteristics of modern e-commerce is the strong presence of card payment as the preferred mean of payment. However, usage of credit and debit cards is looked upon as a traditional means of payment only in developed countries. On the other hand, cash-on-delivery (COD) is an example of evolution within the e-commerce industry, which enabled a deeper penetration of such practices in countries which are less developed and hence less inclined towards using card payment instead of cash (Raghunath and

Dhar Panga, 2013). In an environment where e-commerce companies still have to invest strongly into establishing a trustful relationship with their potential customers, adjusting their business model so they can pay with cash, immensely accelerated their progress and further development. A relevant insight is one from LIDL Digital, since it has been proven that customers are still sceptic towards e-commerce when it comes to purchasing food; as one is keen to see and feel the goods prior to purchasing (LIDL Digital, 2018). Moreover, in general it is reasonable to believe that new Internet users will be less courageous in executing any type of transactions online, backed up by their concern for security and privacy (Mitchell 2014). If we, for the purpose of better understanding, put aside loyal, care-free consumers of e-commerce, sources of information ambiguity, risk and unreliable delivery represent the largest barriers in establishing a stable customer base (Raghunath and Dhar Panga, 2013).

2.3 Political factors

At the beginning of the 1990s, companies which were the pioneers in the industry took a firm standpoint opposing the government regulation with the goal of keeping the market free flowing and reactive to alterations with transaction costs at the bare minimum. By taking precautions at the very start of the industry development phase, they understood that at that point they had the deepest knowledge about business conduct, as well as the largest chance to have influence on the regulatory work intended to ensure government regulation and monitoring (Farrell, 2004). Their argument was based on the belief that government regulation was very likely to decelerate and strangle the economic sector that was in the epicentre of rapid changes.

Increased global importance of the Internet was the cause for numerous international agreements over data flow. Created in 1997, the key policy document of the White House "Framework for Global Electronic Commerce" was basically carrying a conclusion that governments should be at a safe distance from regulating e-commerce, except in cases of absolute necessity (Farrell, 2004). In the EU, the rapid growth of e-commerce has also been tackled by political discussions. Amazon and Google, technological giants from the US, have already been in the loop by the regulatory EU organizations (Chesnotes, 2017). On the other hand, developing economies such as Brazil are likely to suffer from overly-complicated administrative procedures to establish and manage an e-commerce business as well as a complicated and time-consuming tax structure (Eos Intelligence, 2013).

2.4 Omni-channel distribution of e-commerce

Omni-channel approach to retail is a modernised understanding of the significance of focusing on making a cohesive customer experience through every step of the process. In other words, the goal is to be everywhere all the time (Shopify, 2018). To date, no one can statistically prove on precisely when, how and why online purchases are made. However, the fact is that not a single customer spends their money through only one medium.

The case of the US shows that online shopping has never been more omnipresent. Omni-channel distribution facilitates businesses to integrate all types of channels in order to accelerate the purchase which would normally be slowed down by the exclusive presence of only e-commerce channels. More importantly, merchants utilizing omni-channel strategies marked a 30 percent higher lifetime value compared to single channel distribution (Shopify, 2018). For example, offering a product which is relatively expensive, there is not a great chance of achieving sales the first time the customer is introduced to it. With the use of omni-channels, it is possible to target them consistently across channels, influencing their scepticism and answering all of the necessary questions (Bigcommerce, 2018).

3 Challenges

E-commerce is facing several challenges nowadays which are especially complex at the international level, due to different cultural backgrounds, different level of economic development and lack in standardized regulation.

Table 4. A summary of challenges

Challenge	Main points
Trust	Payment services credibility, mutual trust among trading parties
Readiness	Presence of Internet, language approachability, human interaction
Security	Level of fraud, consistency in security updates
Regulation	Legislation harmony and unification, privacy issues, VAT incompatibility

Source: Own work.

3.1 Trust

Nowadays, consumers are very sceptic towards making business transactions online until they are absolutely certain that the issue of their financial security as well as their seller credibility is satisfied. In order to tackle this challenge several regulatory and security initiatives have been initiated. In the EU the European Commission initiated Confidence Forum with the goal of providing an effective mechanism in order to help in sorting disputes with unsatisfied customers without the need of including the courts, especially when it comes to cross-border issues. Arbitrary services of this type are likely to be of immense importance for consumers and sellers because they are building upon a key component in electronic commerce – mutual trust (OECD, 2000). Equally important for establishing a trustful relationship is seller's modelling of delivery and returns policy. Compared to brick-and-mortar commerce, returns in e-commerce are three times more frequent. In fact, 72 percent of shoppers return 10 percent or less of their orders. More importantly, a badly composed returns policy prevents 80 percent of shoppers (SmartInsights, 2016). Finally, you may be asking yourself whether it is really worth investing in since the cash inflow is reversed. Well, studies show that 60 percent of e-commerce shoppers return their purchase at least once a year, and 95 percent will re-purchase if the return experience shows out to be positive (PracticalEcommerce, 2013). Regarding the delivery policy, the average shopper's patience expires in six days when the shipping service has to be paid, and in seven days when the service is free. The secret lies in letting the customers choose the delivery speed options. They can leverage the speed of delivery times according to their needs, which actually enables shortening the delivery time on the next day or even within the same day. Secure payment traditionally stays as a priority in e-commerce regardless of the purchase value. On the other hand, warranties are purchased mostly in conjunction with electronics or major appliances (UPS U.S., 2016).

3.2 Readiness

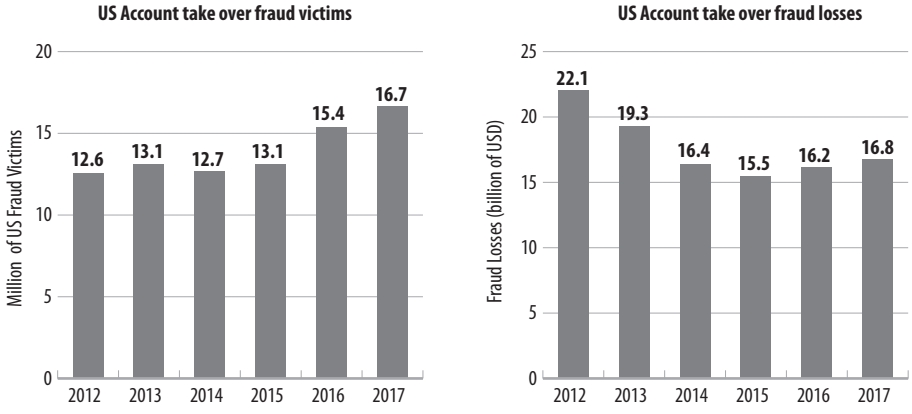
One of crucial prerequisites for e–commerce is access to the Internet, which is almost a standard in developed countries but in developing ones it is far from that. Only 58 percent of the total world population had Internet access in January 2018 (WeAreSocial, 2018). The cost of establishing Internet access is prohibitively high compared to living standards. This is especially true for rural areas that lack the infrastructure. Even if SMEs are familiar with some benefits of e-commerce, they tend to connect their activities predominantly with B2C strategy and without the critical mass the investment in e-commerce would be a risky one. To reach the

critical mass, businesses try to reach also foreign markets where different cultural barriers are present. One of the most important barriers into reaching new markets is the language (Talk Business, 2017). In western countries, the common belief is that everyone across the world understands at least some English, but this is not the case. In reality, if there is a possibility to choose a language, nine out of ten customers will choose their own language. Another important information is that 42 percent of all customers never make any purchase in languages other than their own and 19 percent never browse in a foreign language (Web Interpret, 2016). In different markets, the culture can differ so much that a company needs to adapt and develop a specific design, use different colours and messages to give the right customer experience. In several cultures, shopping is perceived as a social event, and brick-and-mortar stores as a social place with human interaction. In e-commerce customers experience the product/brand in a different way as they do in a traditional brick-and mortar-shop (Key Differences, 2016). Even in developed countries people still show the tendency to purchase things in brick-and-mortar stores and preferably pay with cash so that they still retain anonymity when purchasing products (Iqbal, 2013).

3.3 Security

Security in e–commerce is one of the biggest challenges nowadays because new technological innovations are constantly reshaping its landscape. Every day there is a new way to breach a security system, therefore, security standards must be very high. Payment security is often the most vulnerable to "attacks". Despite

Figure 1. Account take over fraud in the US



Source: Javelin Strategy & Research, 2018.

the fact that payments in e-commerce are secured with various methods (PIN code, SMS approval, etc.) there are still a lot of frauds happening. That is mainly due to intruders taking over customer accounts resulting in extraction of sensitive personal information from the account and managing the spending. Only in the US in 2017, there were 16.7 million fraud victims and the losses accounted for 16.8 billion US dollars (Javelin Strategy & Research, 2018). To tackle this issue, companies are using a third party verification system (e.g. passcode system), tracking the users' activities and IP addresses, monitoring their behavior, etc. (Leyde, 2014).

3.4 Regulatory challenges

E-commerce operates nationally and internationally. Businesses need to operate under different legislations that may also be in contradiction with each other. This especially accounts for regulations such as customer protection (product safety, refunds, etc.) and customer privacy (e.g. anonymity). In practice, this means that businesses cannot sell the same product in different countries or even collect the same data about the customers in different countries. Currently, the most demanding regulations about the data protection is GDPR in the EU, which defends the privacy of the customer (benefit for customer) but on the other hand makes it difficult for companies to get the crucial information for sales and marketing. In the US there are no such strict regulations and businesses can access data on customers easily, meaning they have an advantage over the EU companies. To address the problems of non-unified legal systems, the United Nations introduced the Model Law on Electronic Commerce (MLEC) and the UN Convention on the Use of Electronic Communications in International Contracts to enable and facilitate e-commerce. The instruments are promoted as a guideline for national legislations, particularly for the ones with the lack of regulations in the respective field (e.g. developing countries). There are however also several critics who believe that the instruments are outdated and they may not be able to accommodate modern transactions. They believe that when the instruments were adopted, the current legislations were not examined as they should have been and the new commercial practices were not fully adopted (MIK, 2017).

Businesses operating globally also face different tax regimes. Value added tax (VAT) collection is a real burden for e-commerce companies, especially for SMEs because companies must charge a different VAT for different marketplaces. The European Commission (2017) estimates the compliance cost is about 8,000 EUR per year for every EU market. There is also the problem of tax

evasion due to VAT collection problem. It is estimated that VAT evasion could cost a country up to thirty percent of potential VAT revenues (International Tax Review, 2013). The European Union is forming a new system with the e-portal (e-commerce tax submission system managed by national tax authorities) for easier and more efficient collection of VAT in the EU national markets.

Now more than ever, new regulations are needed in order to address the problem of monopolies and unfair business practices in e-commerce. "Tech giants" like Google and Amazon are acting as monopolists in their fields due to the lack of appropriate regulation, as conventional legislation fails to address the new business models. The traditional legislation defends consumers against unfairly high prices, however, the "Tech giants" are giving new products for free or at lower prices, which the customers usually pay with their personal data. Amazon (as a retailer) underpriced the traditional retailers and forced the industry to lower their prices (this is referred to as an "innocent monopoly" (Fortune, 2018) and the Antitrust Act does not address such monopoly. Amazon (as a market place) has all the data about a company's business activities. This means that Amazon can detect or even crush the potentially successful newcomers before they even get traction (Fortune, 2018). Therefore, new regulations are needed to address the issue of "innocent monopolies".

Conclusion

With the future development of e-commerce, the traditional way of doing business by supplying goods and services will intrinsically have to adapt. E-commerce is enabling a much greater market reach for companies of all sizes, but the low barriers to entry will have the largest effect among small and medium enterprises. They can cover multiple markets using the already existing solutions to steadily grow with respect to their flexibility and lower initial fixed costs. However, this will only be achieved if the market players take into account all economic, social, political and supranational factors, which strongly shape the distribution and profitability of e-commerce compared to brick-and-mortar commerce. Moreover, the greatest challenges come in the shape of administrative and bureaucratic regulations providing a backbone for the least harmful interference for the sake of protecting, preparing and acquitting the customer. In total, harmonization of law and consumer rights regulations must be achieved in order to encourage fortification of the existing security standards, whose mission is to build on trust among still an immense base of customers holding their cards against e-commerce.

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II.

TRENDS IN E-COMMERCE ACROSS THE WORLD

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TRENDS IN EUROPE AND SLOVENIA

Introduction

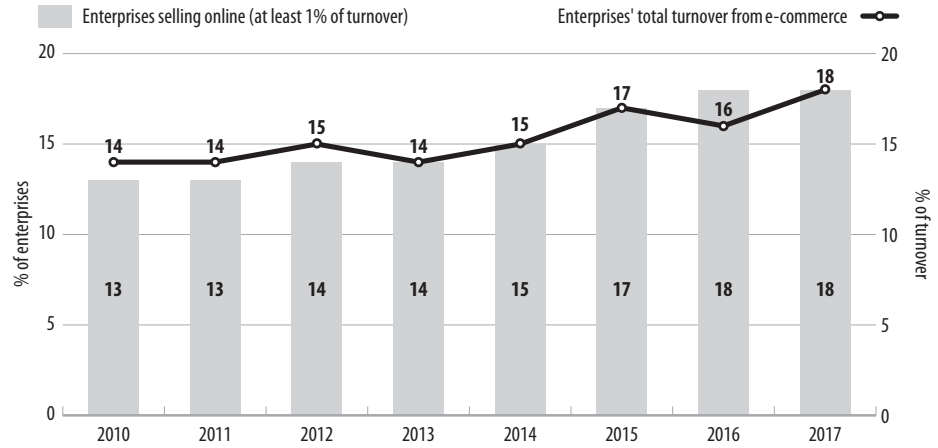
European e-commerce got a late start in 1995 compared to the United States where the Internet was already widespread at the time. In the following years, the legal protection and support of the European Union enabled Europe to construct a network infrastructure of online payments, security and public trust, network facilities and developed logistic systems (Xiao, 2017). Nowadays, Europe is one of the three global e-commerce markets alongside the U.S. and China (Statista, 2018e). Although being one of the main global players, the European share of e-commerce is predicted to grow at a slower pace of eight percent annually while China and the U.S. have predicted growth of 9.4 and 13.8 percent, respectively (Statista, 2018).

In this chapter e-commerce in Europe in general and in selected countries is analyzed. The aim of the chapter is to give an overview of e-commerce development and trends both on European B2B and B2C markets. First, an analysis of e-commerce in general and cross border online sales is presented. The second part provides a more detailed overview of the selected countries where we separately analyze those that are most developed and those in the process of developing the e-commerce market. In the last part, Slovenia and its e-commerce development are in focus.

1 E-commerce in Europe

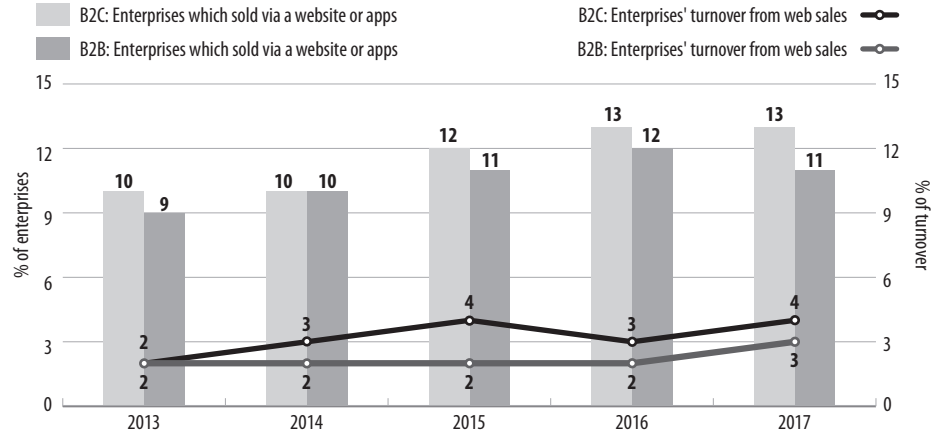
The combined B2B and B2C EU-28 data reveal slow growth in the number of enterprises with e-commerce in the period from 2010 to 2017. Their share has increased by five percentage points and reached 18 percent in 2017 (Figure 1). The total turnover from e-commerce is growing at a slower pace as it increased by four percentage points in the same period.

Figure 1. E-commerce and turnover from e-commerce, 2010-2017, EU-28 (percent of all enterprises, and as percent of total turnover)



Source: Eurostat, 2018.

Figure 2. B2B and B2C e-commerce and turnover from e-commerce, 2010-2017, EU-28 (percent of all enterprises, percent of total turnover)



Source: Eurostat, 2018.

Although B2C e-commerce receives the most attention and research, B2B e-commerce is said to be the larger revenue generator globally (Export.gov, 2018b). In the EU-28 area, the percentage of turnover from web sales is higher in the B2B market, growing from two percent in 2013 to four percent of total turnover in 2017 (Figure 2), while the B2C market remained at the same level, which indicates that companies are recognizing the potential of B2B e-commerce. On the other hand, there are still fewer enterprises engaged in B2B e-commerce

(11 percent of all enterprises in 2017) than those engaging in B2C e-commerce (13 percent of all enterprises in 2017). In addition, the share of European B2B e-commerce in total global volume has been decreasing from 4.4 percent in 2013 to 3.6 percent in 2017 (Statista, 2017). Nevertheless, the European B2B e-commerce is developing. For example, Europe's largest B2B marketplace Mercateo exceeded the sales mark of a quarter of a billion euros for the first time in fiscal year 2017. Mercateo has been also operating Europe's largest B2B networking platform Mercateo Unite since March 2017 (Mercateo, 2018).

At the moment, big enterprises are clearly dominating the e-commerce market (Table 1). Some of the reasons for these differences between large and small enterprises are the costs connected to online selling. Large enterprises usually generate enough revenues to cover the initial investment into expansion to e-commerce, as the initial cost of establishing a website or an online store, as well as the costs of managing delivery and returns, are substantial (The Guardian, 2016). Smaller enterprises on the other hand find it hard to allocate the assets for that initial investment. Therefore, they struggle with the omni-channel presence. They are present either online or in the old-fashioned brick-and-mortar form.

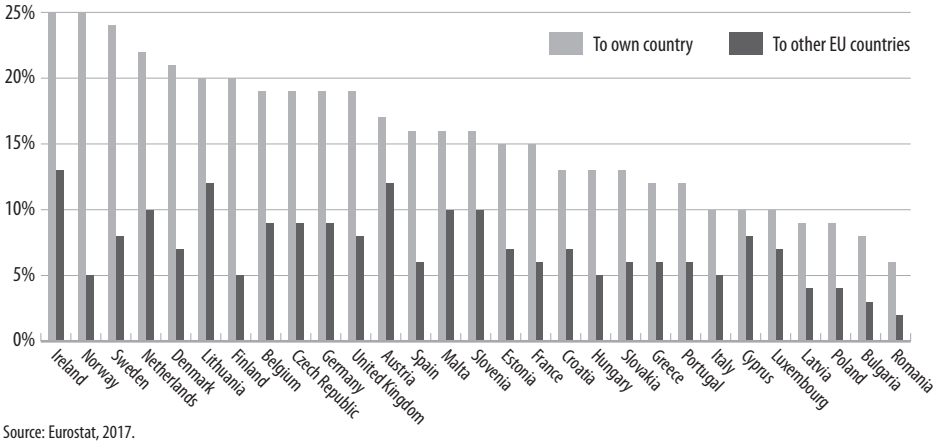
Table 1. Turnover from e-commerce by enterprise size, EU-28 (percent of total turnover)

	2013	2014	2015	2016	2017
All enterprises	14	15	17	16	18
Large	19	20	24	22	26
Medium	11	11	13	12	13
Small	5	6	6	6	7
Very small	0	0	0	0	0

Source: Eurostat, 2018.

Although e-commerce supports cross-border trade, only 16 percent of enterprises in the EU-28 reported web sales to customers in their own country and only seven percent to other EU countries in 2017 (Figure 3). In 2017, Ireland had the highest percentage of enterprises with online sales to other EU countries (13 percent) and together with Norway the highest share of enterprises with online sales in their own country (25 percent). Following Ireland in the share of enterprises with web selling to other EU countries were Austria and Lithuania (12 percent). The two countries with the lowest proportion of enterprises selling online to other EU countries were Romania (two percent) and Bulgaria (three percent).

Figure 3. Percentage of all companies with online sales (domestic and intra-EU) (without financial sector, 10 employees and more)



Source: Eurostat, 2017.

This rather low engagement in online sales to other countries is interesting because the EU is perceived as a single market, without borders and with a free product flow. Nevertheless, there are still matters that vary among different countries (Brown, 2011):

- Differences in laws and regulations;
- Differences in payment methods, delivery options and taxes;

E-commerce strategies must be developed on a country to country basis in Europe, requiring specific changes due to culture, language and currency differences.

Therefore, increasing e-commerce by creating a Digital Single Market (DSM) has become one of the top priorities of the European Commission. The objective is to create one borderless market with harmonized rules that would ease e-commerce for businesses and consumers in Europe (International Trade Administration, 2017b).

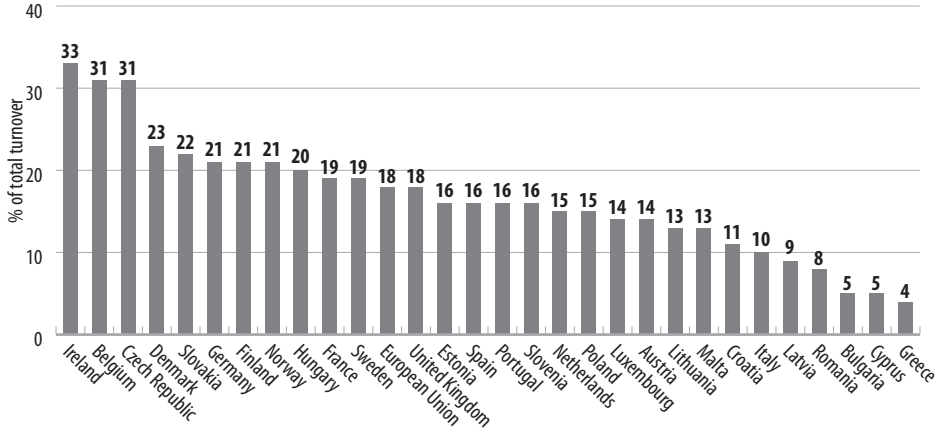
2 Country specifics

2.1 Countries with developed e-commerce

There are significant differences among European countries when it comes to the percentage of turnover that is generated from e-commerce (Figure 4). On average, EU firms generated 18 percent of sales online in 2017 and the top performing countries are Ireland, Belgium and the Czech Republic. We will

focus on Ireland, the Czech Republic and the United Kingdom in more detail. The decision to choose the United Kingdom instead of Belgium that has a much higher percentage of turnover generated from e-sales is based on the sheer volume of the UK's e-commerce which is the largest in Europe. For example, the most recent data shows that the revenue in e-commerce market in the UK amounts to €78,284 million in 2018 while being at €5,371 million in Belgium (Statista, 2018). Furthermore, the average revenue per user in the UK is at €1,484.40 per year, which is more than twice the one in Belgium at €655.65. Belgium is the leader in the B2B market with ten percent of turnover coming from e-sales while being below the European average in the B2C market (three percent) at two percent (Eurostat, 2018).

Figure 4. Turnover from e-commerce, 2017, EU-28



Source: Eurostat, 2017.

2.1.1 Ireland

Ireland is the leader of European B2C e-commerce in terms of percentage of turnover generated from e-commerce (33 percent in 2017). In 2017, the population of Ireland was 4.8 million (CSO, 2017) with a 77.1 percent e-commerce user penetration (Statista, 2018). Internet accessibility of 89 percent (CSO, 2017) is one of the factors contributing to €3,654 million revenue in the e-commerce market in 2018 which is expecting to grow at an annual rate of 8.6 percent until 2022 (Statista, 2018). The average revenue per user is currently €975.05 per year, which is above the European average of €912 (Statista 2018). The most popular product segments to be purchased online are toys, hobbies and DIY (do-it-yourself) products, followed by fashion, electronics and media (Statista,

2018). Similarly to the rest of the world, Amazon is the lead player in Internet retailing in Ireland as well, generating a value share of five percent. There is a tight connection between Ireland and the UK in e-commerce retailing (Euromonitor, 2018). Many lead players in Ireland operate from websites based in the UK. They offer rapid shipping or even maintain distribution centers in Northern Ireland to facilitate the delivery (Euromonitor, 2018).

Several structural changes implemented by the government have contributed to this situation. Ireland was one of the first EU members to implement the Electronic Signatures Directive through the Electronic Commerce Act 2000 (ECA). Besides that, it also implemented the Electronic Commerce Directive which was a legislative approach aimed to retain light and flexible technology-neutral regulatory regime (International Trade Administration, 2017). Such changes have helped to create the economic environment that is supporting the development of new technologies which are the basis for e-commerce growth.

2.1.2 Czech Republic

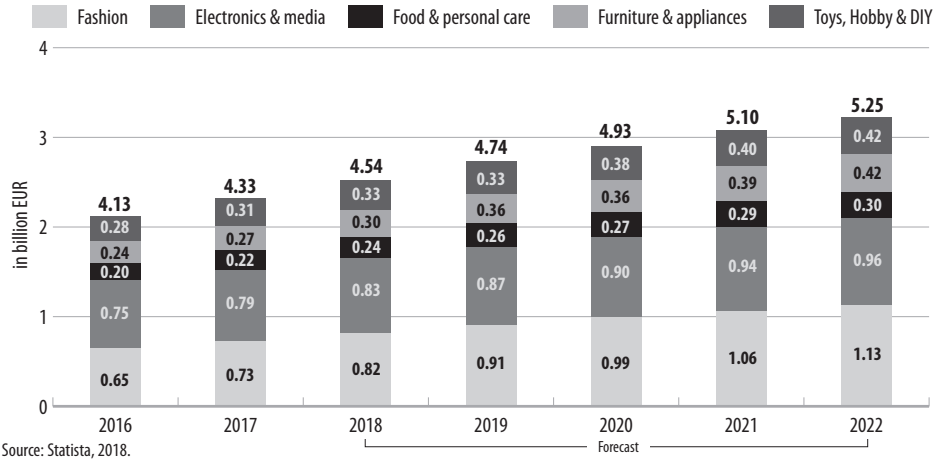
In 2018, there are 7.3 million Czech online shoppers. It is expected that by 2022 7.5 million Czechs will shop online (Statista, 2018). The number of users presents more than 70% of the population. They spend €2,168 million in e-commerce and the value is expected to increase by 25 percent by 2020. This is by 5 percentage points higher than in the period from 2016 to 2018.

More than 40,000 online stores in the Czech e-commerce market generated more than 10% of all retail sales in the Czech Republic in 2017 (Vicherek, 2018). Currently, the largest online stores earn from €6.1 million (bonprix.cz) to €43.3 million (sportsdirect.cz). Figure 5 depicts a detailed categorization of revenue by product category in e-commerce, clearly showing the leading trend in selling fashion products online.

When comparing the Czech market with other markets from Eastern Europe (Figure 4), we can see that their progress and development they have made is currently unmatched by any other European country. The government has implemented a set of laws which simplified the process of online store creation, such as quick company registration, guidelines for online sales, VAT and corporate tax advance prepayment, etc. The results are best seen in the example of Netretail Holding, a Czech company which is the owner of the brand name Mall and the Slovenian company Mimovrste. The holding operates in various European countries, such as Slovenia, Slovakia, Poland, Hungary, Croatia and

the Czech Republic (Capital R, 2015). This company is a good example of the power of the Czech e-commerce business, as it has filled its potential in the Czech market and expanded to other markets with a great success.

Figure 5. Revenue generated through e-commerce in the Czech Republic by product categories



Source: Statista, 2018.

2.1.3 United Kingdom

The United Kingdom is at the European Union average of 18 percent in terms of percentage of total turnover that is generated by e-commerce. But on the other hand, regarding the volume of sales it is also the third biggest e-commerce market globally (Statista, 2018a. The UK population of 66.5 million (Worldometers, 2018 is responsible for €78,284 million revenue in the e-commerce market in 2018. The UK's e-commerce user penetration is 79.5 percent. The prediction for the revenue is 6.1 percent growth rate until 2022 (Statista, 2018). The average revenue per user generated from e-commerce is €1,484.40 per year. The most popular product segments purchased online are clothes and sports goods, followed by household goods, holiday accommodation, travel arrangements and event tickets (Statista, 2018). Few e-commerce retailers are dominating the market in the UK. The most powerful is Amazon, accounting for 33.5 percent of all UK online spending in 2017 (Forbes, 2018). Other visible market players are Boots, John Lewis, M&S and Tesco (Ecommerce News, 2017).

There are several reasons why the UK is so successful. The first is the language issue. Many important technology enterprises come from the U.S.,

so the most convenient location to expand in Europe is the UK (and Ireland), since there is no language barrier. Second, the UK is smaller and more densely populated compared with the U.S. Therefore, the goods need to travel smaller distances, which is also great for moving stock in order to provide click and collect options. Finally, UK consumers have had debit cards since 1966 when Barclaycard launched its credit card, which is why consumers feel more comfortable using them. This also goes hand in hand with high rates of technology adoption and low costs of Internet services (Warren-Payne A. 2012)

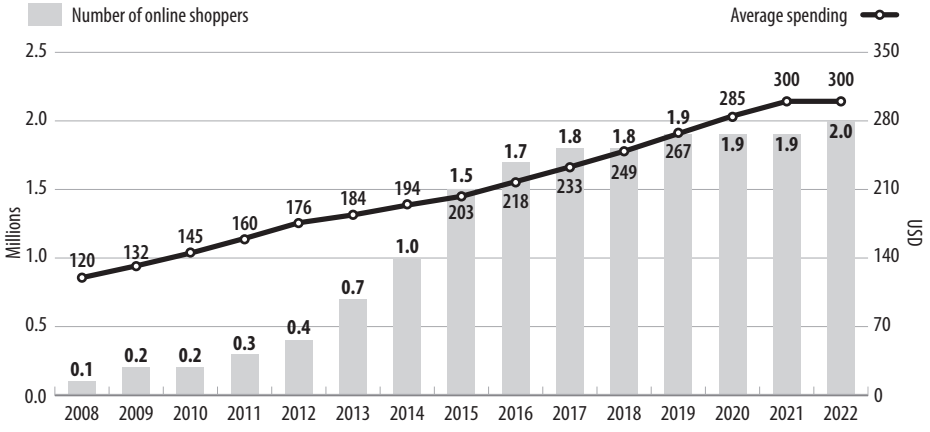
2.2 Countries with developing e-commerce

In this part of our research we focus on two emerging European markets; Croatia and Romania, and their development of e-commerce both in the B2C and B2B segments. Both countries possess a high potential for e-commerce growth.

2.2.1 Croatia

Upon entering the European Union, Croatia was obliged to accept the law framework that the EU created for the purpose of creating an easier and better business environment for e-commerce. The result of this was an increase of online shoppers from 140,000 in 2008 to 1.77 million in 2017, where only six percent of the total population never purchased an item online (International Trade Administration, 2018a). The e-commerce market in Croatia is valued at

Figure 6. Croatia's number of users and their average spending per user in USD



Source: eShopWorld, 2017

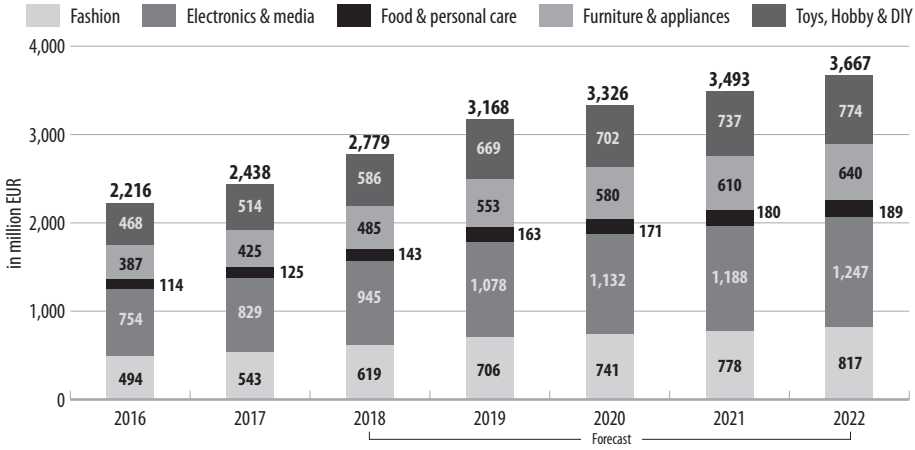
€390 million. Online shopping in large retail chains (e.g. Konzum) contributes to only seven percent of the total market valuation. Nevertheless, the rate of growth of e-commerce volume is around 15-20 percent per year and it is expected that by 2021 there will be two million online shoppers who will spend an average of €300 (Figure 6).

The most successful Croatian online store is eKupi, which is part of M San, one of the largest companies in the IT sector in Croatia (Ivezić Bernard, 2018). Furthermore, eKupi is the only company in the e-commerce sector in Croatia that is actually owned by a Croatian company. Their competitors operate through a foreign companies in order to avoid Croatia's complicated legal framework.

2.2.2 Romania

Today Romania is known for its rising IT sector and as such it is interesting to be studied from an e-commerce perspective. Since 2016 Romania has had an increase in the number of online shoppers by almost 20 percent and currently there are more than ten million online shoppers. This number is expected to rise to 14 million by 2021, which would be almost three quarters of the population (EShopWorld, 2018). Over 90 percent of millennials go online daily, and the numbers are also high for those older than 55, since as many as 70 percent or more use the Internet every day (EShopWorld, 2018). Therefore, the potential for e-commerce is really high.

Figure 7. Categorization of revenue generated through e-commerce in Romania



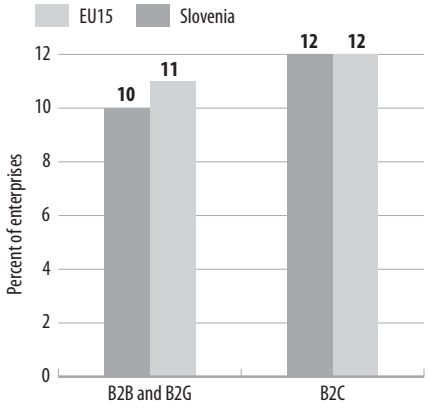
Source: Statista, 2018.

The total e-commerce market is valued at €3.3 billion in 2018, which is a substantial increase (by 40 percent) from 2016, when it was valued at €2.3 billion. Unlike other Eastern European e-commerce markets where fashion is the leading sector in e-commerce retail, Romania has a large electronic e-commerce sector (Figure 7). Not only has the market increased, the rate of consumer consumption has risen as well, so on average Romanians spend $8.9 million a day (combined), which leads to e-commerce taking almost six percent of the total retail (compared to four percent in 2016) (Gheorghe, 2018).

3 E-commerce in Slovenia

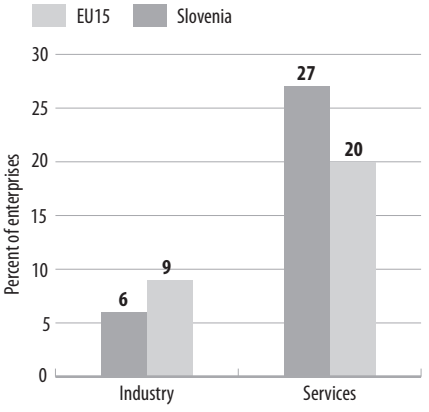
Currently 1.2 million Slovenians shop online, and the number is expected to rise to 1.4 million by 2021 (Statista, 2018). That means that 79.9 percent of Slovenians are present online, which is lower than the European average of 85.2 percent (Internet World Stats, 2018). However, when talking about enterprises in e-commerce, Slovenia is above the European average. About 20 percent of Slovenian enterprises are selling via websites or apps, whereas in the EU the average is 16 percent. Figure 8 shows that Slovenia is well above the average regarding the share of enterprises engaged in B2B or B2G, while the B2C share is the same as the European average.

Figure 8. Percentage of enterprises selling via websites or apps by type of transaction



Source: Eurostat, 2018.

Figure 9. Percentage of enterprises selling online by sector (without financial sector, 10 employees or more)

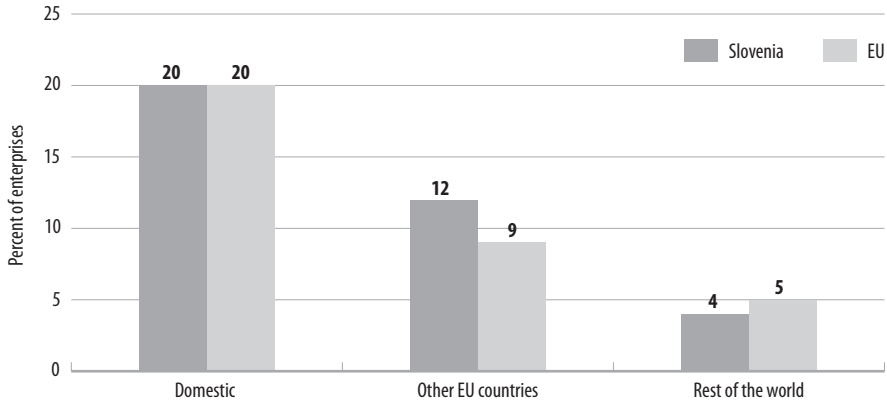


Source: Eurostat, 2018.

E-commerce in Slovenia is widespread mostly in the service sector, especially in tourism, which goes both for B2B and B2C (Figure 9). In the e-commerce service industry, enterprises providing accommodation online dominate with 62 percent, followed by enterprises that work as travel agencies (35 percent), publishers (34 percent) or IT equipment maintenance and repair (26 percent) (Śledziewska K et al., 2016).

Slovenia's e-commerce has the same level of domestic sales as the EU average. The majority of the enterprises involved in e-commerce realize their sales within Slovenia. However, Slovenian enterprises perform cross-border sales within the European Union more than other EU countries. However, the share of enterprises with international e-commerce sales is lower than in other EU countries (Figure 10).

Figure 10. Percentage of EU and Slovenian enterprises involved in e-commerce, without the financial sector (10 persons employed or more)



Source: Eurostat, 2018.

Shopping online and online sales in Slovenia are on the rise (Zupan, 2017a). In the period from April 2016 to March 2017, 46 percent of people aged 16-74 made an online purchase. There were no major gender differences. The majority of online customers were within age groups 16-24 and 25-34, from which 70 percent did the online shopping, followed by age groups of 35-44 (59 percent), 45-54 (46 percent) and 55-64 (20 percent). The lowest number of online customers was among people aged between 64 and 74. On average, 77 percent of buyers made purchases at online retailers from Slovenia (Zupan, 2017b).

The Slovenian enterprises share their domestic online market with foreign giants, such as eBay, Amazon and Alibaba. The largest online store in Slovenia is Mimovrste, which increased its sales by more than 25 percent in 2016 to €44 million. Each month Mimovrste.com has more than 1.6 million visitors and on average 50 thousand completed orders. Its main competitor is enaA, which in 2016 had sales of €20.8 million and generated profit of around €90 thousand (Modic, 2018). The biggest Slovenian price comparator website is Ceneje.si, which covers almost 1.1 million products from 375 Slovenian stores. Jeftinije.hr and Idealno.rs, the two leading price comparator website in Croatia and Serbia, are also part of the Ceneje Group (Modic, 2017a).

Conclusion

In today's world, when the emphasis is on individuals and personalization, there is more emphasis on B2C e-commerce than B2B. However, also in the European Union B2B e-commerce is stronger and faster growing, which indicates that companies are recognizing the potential of B2B e-commerce. Still, the share of companies involved in e-commerce is higher in B2C than in B2B e-commerce. The economies of scales play an important role, plus the bigger enterprises exploit e-commerce more effectively. Establishing an online store and an efficient delivery system is costly, therefore, it is easier for bigger companies to set up an online business.

With stricter trade policies and increasing tariffs around the world, cross-border trade is an important topic. Europe is trying to achieve a harmonized market within the EU that would allow the development of e-commerce. We found out that e-commerce companies mostly sell their products in domestic markets. Therefore, cross-border e-commerce presents a development potential that will allow companies to reach out to new markets and customers. It is estimated that e-commerce could contribute €415 billion per year to the EU economy and create hundreds of thousands of new jobs (Ecommerce Europe, 2017). Therefore, additional efforts need to be made to remove barriers and create supporting environment for e-commerce.

Ireland, Belgium and the Czech Republic are the most developed e-commerce countries in the EU. These countries were able to exploit the potential of e-commerce due to structural and policy changes made on the government level, establishing a positive environment for the companies involved in e-commerce. In some countries, such as Croatia and Romania, the level of e-commerce is

still low. However, with the increasing number of online shoppers and their online presence, e-commerce is growing significantly. Slovenia is strong in B2B e-commerce, where it is well above the European average in the share of enterprises selling their products online, especially in the service sector. Since the Slovenian internal market is small, it is not surprising that the level of cross-border e-commerce is higher than in the rest of the European Union. Overall, e-commerce in Europe seems to be on a steady rise. In some countries the growth is starting to slow down, whereas in others it has just started to accelerate. Slovenia is yet to achieve its full potential.

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TRENDS IN THE USA

Introduction

When the Internet set foundations for the Fourth Industrial Revolution, the United States gained initial advantage compared to other markets, attaining the tittle of pioneers in e-commerce. While developing countries experience large growth in the discipline, the United States prioritizes innovation before size. The US-based companies, such as Tesla, Apple, Google, Uber and Amazon, are highly involved in the innovation process that concerns the future development of e-commerce. They are both the trend setters and the market leaders of the USA and the rest of the world.

This chapter aims to address the size of e-commerce in the USA, present its importance and identify the trend setting activities used by online companies. The chapter focuses on the current practices of e-commerce in the USA and tackles some of the questions that have to be answered by marketing researchers and industry practitioners. The general characteristics of e-commerce in the USA, described by numbers and figures, are presented first, followed by B2C specifics. The third part provides insight into the B2B e-commerce transformation, current state and future predictions. The last, fourth part, is dedicated to the future of e-commerce in general, and focuses on possible changes that are yet to come.

1 Overview of the US e-commerce market

E-commerce has drastically changed shopping habits in the USA and elsewhere around the world. The US e-commerce market, which is predicted to grow by 14.8 percent in 2018 (eMarketer, 2016) and continue to do so at a similar pace in the following years, is ***expanding at a much faster rate than the brick-and-mortar type***, resulting in an increasing share of e-commerce in the overall sales

made in the USA (eMarketer, 2016). Continuous growth of the US e-commerce market can be partially explained by the ***constant development of new practices***. This can be observed in the ways the products are offered to the consumers, transformation of communication channels, changes of payment methods and growing use of crypto-currencies (Laudon and Guercio Traver, 2017).

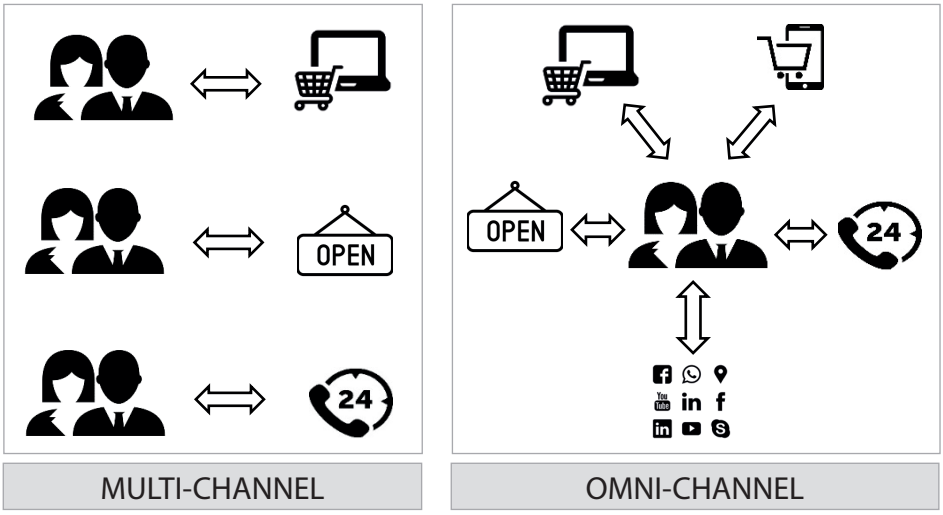
Due to their knowledge and fast paced lifestyles, most of the e-commerce buyers demand ***"intuitive, self-service interfaces and 24/7 e-commerce availability"*** (Forbes, 2018). This is reflected in the device method used to make a purchase. In 2016, 44 percent of American smartphone users utilized their devices to shop online, a three percent increase from the previous year (UPS, 2016). In 2017, 34.5 percent of all US e-commerce sales were made using mobile devices, a category consisting of either smartphones or tablets (eMarketer, 2017). The share of mobile device shopping is forecasted to further increase in the near future and reach 42 percent by 2022, while eMarketer estimates the figure to reach 50 percent by 2020 (Digital Commerce, 2018). The increase in mobile shopping has led companies to develop specially designed mobile e-channels, such as mobile shopping apps, which adjust to users of various homogeneous mobile devices (different screen sizes, displays) and offer them a better fit shopping experience (Schramm-Klein and Wagner, 2014).

The US e-commerce can be roughly separated into two sectors: ***services*** and ***on-line retailing*** (also known as e-tailing). On-line retailing represents a small portion of the retail industry, however, its growth is exceptionally fast. In response to that, off-line retailers, such as Staples, Wal-Mart, Best Buy, etc., are expanding their presence in the e-commerce retailing. This process is being executed at a slower pace, compared to dot-com firms such as Amazon and Newegg (Laudon and Guercio Traver, 2017). While the sector of on-line product retailing is expanding fast, the on-line services market is currently the largest and most rapidly expanding sector in developed economies.

The main concept, which is most often mentioned in current businesses plans, is the implementation of ***omni-channel*** (Walker, 2014). The idea of omni-channel is to combine the advantages of brick-and-mortar stores into "information-rich" experience of online shopping (Rigby, 2011). For example, a business can be reached over the phone, email, via website and through social media, which is presented in Figure 1. Omni-channel combines these functionalities to work as one, as each received message is available on all communication channels. This is the main advantage in comparison to the older concept, known as multichannel. The usage of omni-channel leads to higher customiza-

tion of the shopping experience and higher customer satisfaction (Frazer and Stiehler, 2014). It can also be implied that higher customer satisfaction leads to lower customer churn rate. Online vendors using omni-channel can also benefit from the shopping experience customization. Using it allows them to understand customer behavioural patterns, which can be utilized to offer a more personalized supply and ultimately lower the consumer surplus. While benefits of omni-channel are known and e-commerce retailers are reporting higher profits each year, this is still not the usual practice in the USA. Approximately 34 percent of retailers have implemented omni-channel within their businesses and provide web-stores as well as brick-and-mortar stores for their customers. The percentage is expected only to grow in the future (Big Commerce, 2018).

Figure 1. Differences between multi-channel and omni-channel



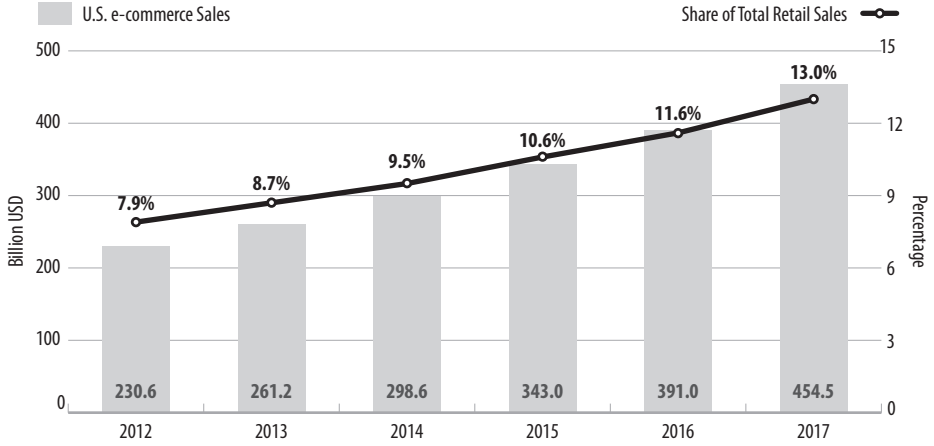
Source: Guided Selling Blog, 2015.

An example of a well-integrated omni-channel is the Starbucks reward system. Users of such service have a constant access to up-to-date details of their loyalty card credit. Current balance can be checked from a mobile phone, website or in the brick-and-mortar coffee shop – it is providing one channel, no matter what kind of technology the customer is using. A similar user experience can be observed if a person is planning a trip to Disney World. Disney is considered as one of the best examples of how to use omni-channel properly. The website is identical to the mobile application and they are in constant sync regarding the details of one's trip. Similar approaches have been adopted by Bank of America, Virgin Atlantic and Chipotle (Agius, 2018).

2 Business to consumer (B2C) e-commerce

The US B2C e-commerce market grew by 16 percent in 2017, resulting in yearly sales rising to 453.46 billion dollars (Digital Commerce, 2018). That represents 13 percent of total (both brick-and-mortar and e-commerce) sales in 2017 (Figure 2).

Figure 2. US B2C e-commerce sales and share of total retail 2012-2017



Source: Zaroban, 2018.

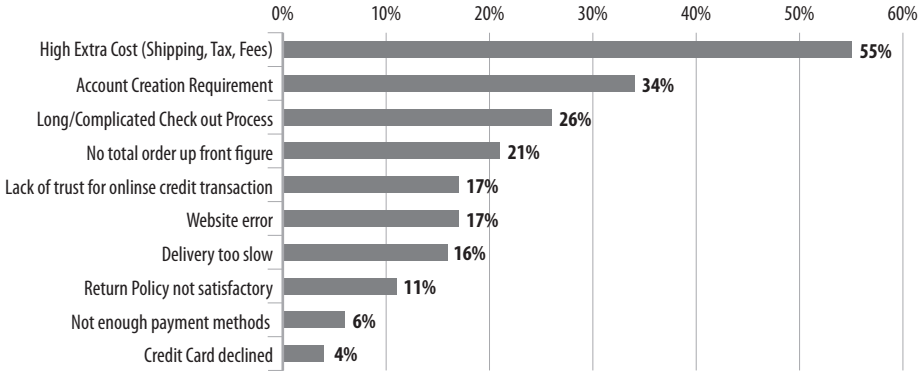
Looking at the US sales data and e-commerce practices in B2C markets, we can observe the following patterns. Firstly, the biggest sales happen on the so called "Black Friday" and "Cyber Monday" (Adobe, 2017). Many online retailers prolong their daily special offers to week or weekend events. The most representative examples are "Black Friday Weekend" or "Black Friday Week". This way they extend the duration of a one-day sale to a multi-day experience. The aim of such tactics is to keep customers engaged and minimize cart abandonment phenomena and potential losses associated with it (Digital Commerce, 2018). Although sales days such as "Black Friday" tend to be the most profitable for brick-and-mortars as well, according to RetailNext, Inc., brick-and-mortar sales decreased by 4 percent with respect to the previous year. This is not the case for e-commerce retail where sales increased by 18 percent in the same period (The Wall Street Journal, 2017).

Secondly, the customer preference for online shopping has not been left unnoticed by leading US retailers such as Wal-Mart, Target and Macy's. They opted to increase and differentiate their online sections in order to fight decreas-

ing sales in their brick-and-mortar stores (Fortune, 2017). Monthly e-commerce sales fluctuations largely follow the patterns of traditional brick-and-mortar sales (U.S. Census, 2018), which suggests that shoppers do not tend to favour one over the other during specific months.

Thirdly, a phenomenon called "cart abandonment" is common, as globally on average around 68 percent of online shoppers leave an online shop without making a purchase (Baymard Institute, 2018). The majority of online shoppers leave due to high unexpected shipping costs (VWO, 2014). As can be seen in Figure 3, US customers tend to abandon their purchases due to high extra costs associated with their online orders. Only 11 percent of people identify unsatisfactory return policies as something that influences their purchase decision. This indicates that US shoppers do not anticipate or they are not particularly concerned with the return of their online purchases (Baymard Institute, 2018).

Figure 3. Cart abandonment reasons as percent of all shoppers, multiple choices were possible



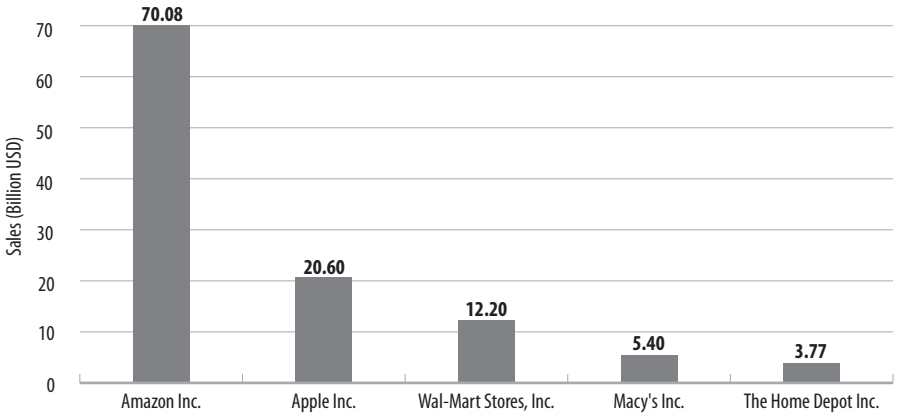
Source: Baymard Institute, 2018.

Overall, based on the data provided in Figure 3, one might argue that US online sellers who utilize the practice of offering a transparent, easy to use and low commitment shopping approach are ceteris paribus, more likely to generate higher sales.

Retail sales of e-commerce in the USA are shown in Figure 4. The presented data was collected in 2017 and is still relevant today. One can easily observe that Amazon is the major leader and current trend setter. It is important to note that traditional brick-and-mortars as well as previous market leaders, such as

Macy's and Wal-Mart, are also among the leading e-commerce retailers in the USA. One can conclude that e-commerce in the USA is perceived to be a profitable and promising practice which is expected to grow in the future.

Figure 4. Sales of the leading US e-commerce retailers in 2017 (in billion USD)

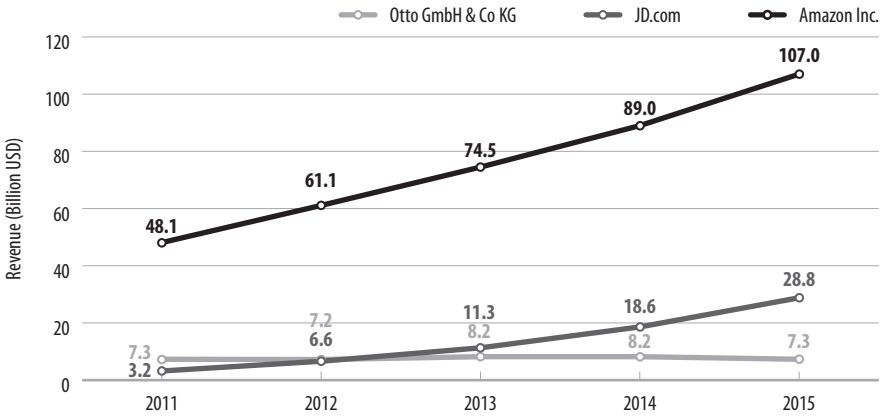


Source: Dumitrescu et. al., 2017.

When comparing the leading e-commerce retailers worldwide, one can argue that Amazon is gaining its market share compared to its competition. This is put into perspective in Figure 5. Amazon is rapidly growing, while European e-commerce retailer, Otto, is losing its users. This could be attributed to the presence and ***expansion of American and Chinese e-commerce retailers in Europe***. In a way, this signals that e-commerce retailing is significantly changing the sales practice not only locally but also globally.

The digital transition is not only changing businesses but it also influences the American consumer culture. Online consumers are nowadays able to compare the costs and characteristics of their desired products directly from the comfort of their home, which ultimately results in savings of both their time and money. This is forcing businesses to acknowledge and accommodate the needs of consumers who can easily exit one virtual store and go to another one (Maguire, 2011). It is important for businesses to regularly update their websites, while the additional effort is put into accurate product information, flexibility, payment methods, product returns and the reduction of shipping costs (Rosencrance, 2008).

Figure 5. Comparison of revenues among the leading American, Chinese and European e-commerce retailers (in billion USD)



Source: Dumitrescu et al., 2017.

New ways of conducting business require a different consumer attitude towards shopping in order for vendors to stay profitable. An average US online apparel retailer, for example, had to ***attract the customer to make on average four separate purchases just to cover the cost of customer acquisition***. Thus, unless the e-commerce transaction item is a "high-ticket item", online retailers are not making profits on non-loyal, one-time buyers (Bain & Company, 2000), which suggests that ***e-commerce profits lay in repeated/returning customer transactions***. The following has been supported by the findings contained in the Monetate Quarterly Report (2015), which shows that in the last quarter of 2015, the returning customers represented 48 percent of all online shoppers; however, they have spent "almost twice as much money as the new visitors spent during the same timeframe".

3 Business to business (B2B) e-commerce

The US B2B e-commerce market is projected to surpass $950 billion in 2018 and is expected to grow further, reaching the $1.2 trillion mark by 2021 (Statista, 2018). In order to understand the drivers and structure of the US B2B e-commerce market, we have to investigate who the participants are and how they operate. It has been estimated that ***almost 50 percent of all B2B e-purchases made in the USA are performed by millennials*** (Google Report, 2015). The relative young demographic structure of buyers has forced companies to change and adapt to the needs of a technologically savvy generation.

Forrester's research (2014) presents the attitude of B2B stakeholders towards the current purchasing channels. Vendors and customers in the B2B segment want to increase their exposure to e-commerce and also make the practice more similar to their personal B2C experience. It is important for businesses to ***follow the developments in the B2C segment***, because in a way that determines the trends for B2B. Trends from B2C that are most wanted to be present also in the B2B segment are (Forrester, 2014):

- Buyers' ability to see the availability of products online (the same way B2C customers are able to see product availability when shopping at e-commerce sites).
- Fast and transparent delivery. Meaning, the content of package is well described and can be easily tracked.
- Control over the customer profile. Customers want to be able to follow their e-commerce activities and also be able to change their settings and the location of delivery.

A survey of 300 companies from different industries (automotive industry, construction, food and beverage, medical supplies, electronics) showed 83 percent of American respondents stating that they expect 100 percent of their B2B transactions performed through e-commerce channels in the future. Inter-machine communication destined to enable automated and predictive ordering is predicted by 82 percent of the US respondents (Sana Commerce, 2017). It is believed that operational efficiency will improve, possibly resulting in lower prices for customers. Among managers, 62 percent of them have experienced improved efficiency of their firms' operations using e-commerce. A customer follow-up system was improved using e-commerce in 65 percent of the cases (Kumar and Peterson, 2006).

The future e-commerce challenges mentioned by the largest number of American respondents are getting the right and complete data in one system (omni-channel), making the existing data ready for e-commerce and upgrade of the current IT infrastructure (Sana Commerce, 2017). The USA is currently ***leading in the e-commerce innovation*** segment, with 78 percent of managers stating that they currently have a digital transformation strategy, meaning that they are planning to completely abolish the traditional channels and use only the e-commerce ones in the future (Sana Commerce, 2017). To 77 percent of the respondents from the USA customer experience was very important for the business growth strategy. The difference is evident in comparison to an average of 57 percent in other surveyed regions. This indicates that in the USA customers are taken into account much more seriously when planning new strategies

than in any other country. Improving and upgrading the current e-commerce solutions according to customers' expectations in the next two years was a statement confirmed by 74 percent of the interviewed employees around the world. In the USA, however, as many as 92 percent of the respondents stated the same plan, portraying their willingness to change and adapt according to the customers' needs (Sana Commerce, 2017).

The benefits of e-commerce practices in the B2B segment are most evident through the use of omni-channel marketing strategies. Omni-channel B2B buyers are more likely to become repeated and long-term customers and ultimately bring higher revenues compared to non-loyal buyers (Hoar, 2015). ***Customer e-loyalty is important*** due to two main reasons, the relative high cost of attracting new customers in the e-commerce business and the challenging task of retaining them (Gefen, 2002). Customers also benefit from such approach, since they have a better overview of product selection. The comparison among different products or services enables cost reduction and time saving, resulting in a diminished information asymmetry between participants.

4 Future trends

Businesses are facing the growth of digital marketplaces, where consumers are able to be present all the time. The businesses are well aware of the situation and for that reason the marketplaces are branching out. Such transformation is leading towards bigger individualization and thriving to accurately customize the offer in real-time (Linnhof-Popien, et al. 2018). Such an example is ***personalized digital advertising***. The technique is based on collecting a big amount of data regarding the performance of different adverts – one of the main performance indicators is the number of clicks per advertisement. The result allows adaptation of the advertisement to specifically targeted groups in real time (Ilc, et al., 2017). In other words, the experts are segmenting potential customers and collecting their responses to specific adverts. These responses are then stored for future usage, when one of the segments is recognized on their websites. Based on the previous segmentation of customers and performance results, the customers are presented with a personalized advertisement.

Customer data gathering is not a new concept among marketers. Loyalty cards, telephone surveys, focus groups and different shapes of questionnaires are already essential tools used for future planning. However, marketing departments are constantly seeking new ways to gather information about their

potential customers. With the growing number of smart sensors, gathering and usage of such data has increased and reshaped the planning of marketing strategies (Pattison and Johnston, 2015). Usually, complete customer information is considered to be combined of two parts: factual and behavioural information (Table 1). Both parts are containing useful customer information that reveal behavioural patterns and contribute to the understanding of purchase behaviour (Liu, 2012). With a further development of smart sensors additional behavioural information can and will be collected. The new technological approach to online information sharing and market digitalization has not been left uncriticised. Sceptics have voiced their concerns around the new technologies and the privacy issues surrounding them. Users of e-commerce are faced with a trade-off. They have to be willing to give up some of their information in order to get a more personalized experience.

Besides the increased flow of information, ***customers increasingly use technology in order to come close to the real world shopping experience online.*** Virtual reality (VR) has created three dimensional shapes of products available anywhere but it is not the final step of the evolution which continues with augmented reality (AR). "Unlike VR, which replaces the physical world, AR enhances physical reality by integrating virtual objects into the physical world. The virtual object becomes, in a sense, an equal part of the natural environment." (Lu and Smith, 2008: 215).

Table 1. Division of the information provided by customers

Factual information	Behavioural information
• Name • Gender • Date of birth	• Transactional data (this describes the customer's actions and preferences)

Source: Liu, 2012.

In a way the physical world is constantly being transformed into a digital one. This is creating a new digital ecosystem. "Business actors, activities, resources – and the businesses themselves – will be digitized as much as is economically and practically possible" (Pattison and Johnston, 2015: 3). Activities, communication and other information are mapped, giving an easier overview of the state in which an economy and single businesses operate. What results is addressed to as a digital business ecosystem (Dini, et al. 2007).

In this sense, it is worth mentioning the ***importance of branding among e-commerce.*** The insight of its importance has been provided by consumers

who were asked about their preferences towards e-commerce websites. Even though some websites had more or less the same functions and offered identically priced items, the consumers preferred some e-commerce businesses over others. Such a result was a matter of branding (Blake, et. al, 2016). E-commerce businesses do not succeed simply because consumers are able to easily compare items from their wish list or make a purchase conveniently from home. The major role in the success of e-commerce is attributed to its reputation. Consumers seek for the feedback provided by e-commerce and opinions of other shoppers. This leads to a higher trust rate among consumers (Tadelis, 2016). Customers' focus on brand name, consumer trust and reliability are extremely beneficial elements for businesses, since consumers regard them as important as the price (Laudon and Guercio Traver, 2017).

Conclusion

The increasing usage of e-commerce in the USA is reshaping the shopping habits of both consumers and businesses. An essential, distinguishing part of American e-commerce is the culture of constant innovation, which dictates the pace of transition also for foreign markets. Thus, American start-ups and fast-growing companies are a good source of useful e-commerce practices. Such businesses have indicated that the online marketplace is becoming more personalized and that companies are going through a transformation from a multi to an omni-channel approach. We can argue that these changes are present in the B2C as well as in the B2B segment. However, not every business located in the USA is experiencing this transition. It seems that well established corporations are struggling with the transformation from the traditional into a digital marketplace. Smaller companies and technology start-ups are the main disruptors for such corporations. It is not a rare occurrence to see a small disruptor gain market share, while one of the main market players loses its market power. This scenario has happened often enough for the corporations to be on the constant lookout for promising start-ups, while also nurturing an innovative culture as part of their core organizational structure.

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TRENDS IN CHINA AND EMERGING MARKETS

Introduction

Emerging markets play an essential role in the current development of the worldwide e-commerce. They are not yet saturated and retailers can still exploit consumer growth, with smartphones being the key drivers for future expansion of the industry. One of the main obstacles that businesses encounter when entering these markets is the underdeveloped infrastructure and different characteristics of each market (Business Insider, 2018). The cumulative share of the BRIC countries is expected to rise to 55.47 percent of the global e-commerce retail in 2018, with China itself contributing for 52.63 percent. In terms of absolute B2C and B2B e-commerce, China is the global leader (eMarketer, 2018a), so understanding the emerging market characteristics and trends will play an important role.

The chapter aims to give an overview of the BRIC countries' e-commerce market development and explain the trends. Each country is presented in a separate part, starting with the introduction to the market, continuing with B2C and finishing with B2B market characteristics. In the conclusion, the main similarities, differences and future predictions of e-commerce development in the BRIC countries are wrapped up.

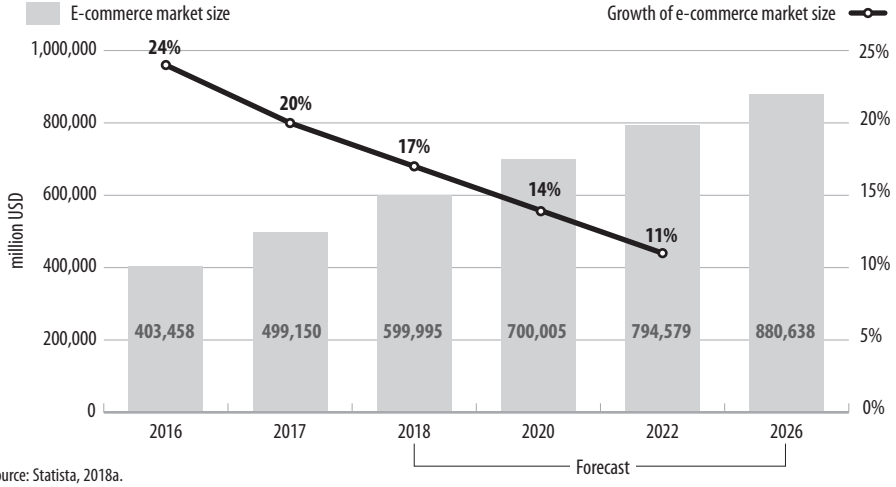
1 China

China is the world's leader in e-commerce and is expected to grow even further. China entered e-business in 1996, established China Electronic Commerce Association (CECA) in 2000 and at that time accounted for only 5.2 percent of the current e-commerce platforms (Hongfei, 2017). By 2007, 22.1 percent of

online users had been using online shopping sites, strongly due to the emerging Alibaba and Taobao, a C2C platform of Alibaba, which was established in 2003. In 2004, Alibaba launched Alipay to gain trust and promote online purchasing and payments. By that point, the three main problems, lack of Internet users, logistic and distribution problems, distrust in the online payment system, were a thing of the past (Sander, 2017).

In terms of the forecast for the next decade, China is expected to grow due to the increase in Internet and mobile penetration rate, migration of the rural population to urban areas, more extensive coverage of rural areas with the Internet, combining online and offline shopping (O2O – online to offline, order, get info online, pick up in stores), volume growth of more expensive product categories (high-end and luxury products), changing demographics, and gaining wealth of millennials (Sander, 2017).

Figure 1. E-commerce market in China

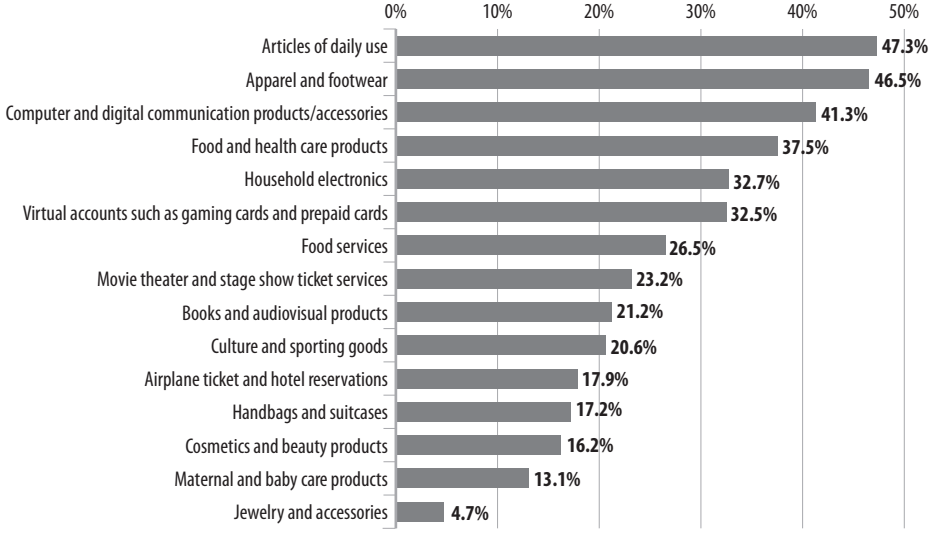


Source: Statista, 2018a.

The e-commerce market has been growing over the last decade but the growth is slowly decreasing due to fact that the market is maturing (Figure 1). Approximately half of the China population live in urban areas and half in rural areas. 72 percent of the urban population are active online shoppers, whereas only 28 percent of the rural area population do shop online. Therefore, rural areas represent gold mines for online retailers such as Alibaba (Sander, 2017). The number of mobile shoppers in China is bigger than the US, Germany and the UK combined, with the e-commerce industry growing at almost twice the speed as in the US. The driving forces for online purchases in China are con-

venience, spontaneity and prices (Wang, 2017). The most frequently bought items are the ones we use on a daily basis (Figure 2).

Figure 2. Popular product categories among online shoppers in China



Note: Percent of shoppers that buy a specific product category on-line. The percentages include domestic online orders and cross-border placed ones.
Source: Statista, 2018b.

The biggest group of online shoppers in China is aged 20 to 29 years, and approximately half are avid users. Altogether they account for 51.9 percent of all online shoppers in China. The second biggest group is aged 30 to 39 years, among which the group of avid users accounts for 29 percent (Statista, 2018f).

Online payment gateways used in China are an exception to the rest of the developed e-commerce markets. Before the e-commerce market in China developed to the current point, it was not easy for foreign companies to establish an online payment channel, since they had to register a company in China to gain the permission to sell online.

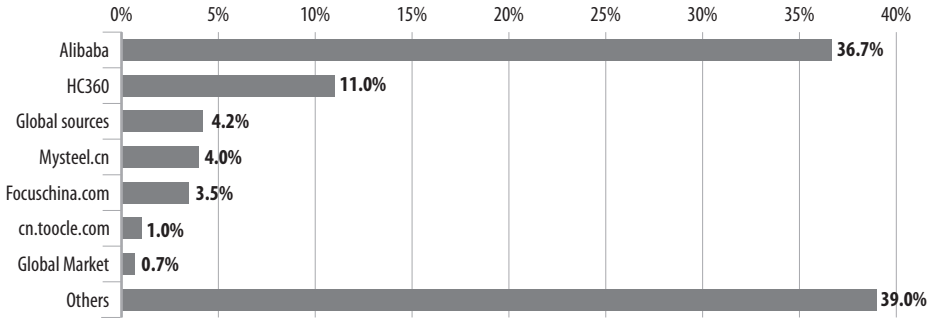
Today, the Chinese people don't usually use credit cards to purchase goods and services made online and mostly use Alipay and Tencent's WeChat. Both WeChat and Alipay require consumers to link their UnionPay or domestic bank account to their wallets before making a purchase, but completely exclude the need for any kind of credit cards (Bloomberg, 2018). Today, the two leaders of online payment services in China are Alipay with a 24.50 percentage share and UnionPay with a 23.89 percentage share (Chooai, 2018).

Cross border e-commerce sales present a substantial part in the Chinese e-commerce market. There are two ways of doing cross-border e-commerce business, via direct mail or bonded warehouses. In the direct mailing model, customer places an order on the registered cross-border e-commerce site and the platform accepts the order placement and sends all the details to the customs to check and approve. After the payment of the taxes, the ordered items are shipped via direct mail (Weinswig, 2018).

The recent changes in regulations have affected taxes and created the so-called bonded zones or warehouses. The whole process of importing the goods is easier for the customs on one side and for the foreign companies on the other, which all leads to shortening the arrival time of the ordered products. Foreign companies therefore send their products in bulk to one of the 13 bounded zones in China. Customs clearance of the shipment now happens before the shipment is dispatched and right after the order is placed. This implies that it is easier and faster to conduct cross-border e-commerce (Weinswig, 2018).

In 2016, the combined cross-border revenue of e-commerce sales in China amounted to 78.5 billion US dollars, but the number is expected to grow over 140 billion US dollars by 2021 as bounded zones are projected to increase to 22 (Fan and Backaler, 2018).

Figure 3. Market share of B2B online platforms in 2017



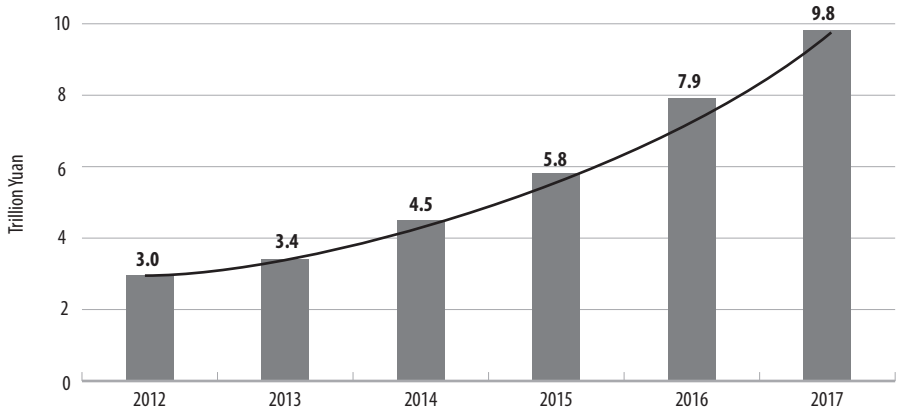
Source: Statista, 2018c.

China's B2B e-commerce is dominated by Alibaba, with a market share of 36.7 percent (Figure 3). Second, an important factor is the use of Stripe, a product of a technology company that allows businesses to receive payments safely, protected from frauds and lost earnings. B2B e-commerce started growing fast when Stripe came and enabled foreign companies to accept money online in

China through Alipay and WeChat. Stripe enables foreign businesses to gain access to the e-commerce market in China (Export2Asia, 2018).

Therefore, the B2B sector more than tripled in the period from 2012 to 2017. It grew from 2.95 to 9.8 trillion Yuan, on average 26 percent annually. This growth was four times bigger than the growth of China's GDP (approximately 6 percent annually) in the same period (JumoreGlobal Insights, 2018). SME businesses accounted for approximately half percent of all B2B revenue in 2012, but the number decreased to 0.28 percent by 2017. Nevertheless, the total revenue from SME businesses grew from 14.7 billion yuan in 2012 to 27.5 billion yuan in 2017 (Statista, 2018d). The B2B e-commerce market is growing, but the bigger players are taking over the market and gaining a bigger market share, which can also be observed in the growing market share of Alibaba as the main player in the B2B segment (Figure 4).

Figure 4. Transaction volume of B2B e-commerce in China from 2012 to 2017



Source: Statista, 2018h.

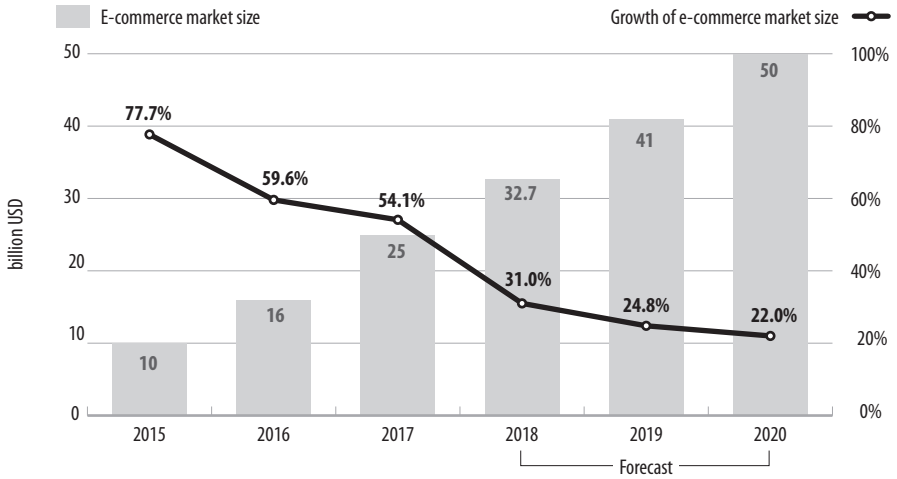
The evolution of China's B2B business models started with *the 1.0 Information Service*, when only around 10 million Internet users in China used the Internet for browsing and emailing. The B2B e-commerce platforms were used for obtaining information. The second stage was *the 2.0 Transaction Service,* where users got accustomed to using the online services and there was a booming expansion. Here, the majority of SME businesses saw the opportunity of doing business online. The problematic areas of the previous stage were solved, especially the ones related to frauds. The B2B e-commerce platforms were used also for transactions. We are now in the *3.0 – Supply Chain Integration* phase. With the overall advancement of technology, businesses have

been able to include supply chain processes into the online world and follow the shipments, warehouse positions and financing online. There are numerous e-commerce platforms that enable finding different suppliers and lowering the costs of raw materials, as well as labour and overall costs connected to the supply chain. Now, the B2B e-commerce platforms are used for logistic and financial services (Quora, 2018).

2 India

India's e-commerce industry was developing with a steady yearly growth of 37 percent from 2011 till 2016. The revenue of the Indian e-commerce industry is expected to grow the fastest in the world and reach the mark of 72 billion US dollars by 2022, growing at an estimated annual rate of 51 percent (Figure 5) (IBEF, 2018).

Figure 5. E-commerce market size and growth rates in India



Source: eMarketer, 2018a.

The Indian e-commerce industry can be characterized by the following downfalls during the initial stage of its growth: taxation issues, fraud incidents (particularly counterfeit), inadequate infrastructure and low level of digital literacy. Those issues were mediated and partially solved by a set of government policies and initiatives, particularly Digital India, Make in India, Start-up India, Skill India and Innovation Fund, as well as a rapid increase in the amount of Internet users (IBEF, 2018).

The number of Internet users in India is forecasted to increase from 493.96 million in 2018 to 829 million by 2021 (IBEF, 2018). The growing number of Internet users, together with the accelerating country-wide Internet penetration, is expected to foster the growth of the e-commerce industry. The rapid surge in the smartphone user base has had a significant effect on the pace of the adoption of e-commerce across the country. Smartphone shipments were increasing with an average annual growth rate of 14 percent per year and reached 124 million units by 2017 (IBEF, 2018). The fast-paced growth of e-commerce is also deeply intertwined with the emerging India's mobile wallet industry, which is expected to reach 4.4 billion USD by 2022 (IBEF, 2018).

Consequently, the **Indian B2C market** has been growing fast. One of the most significant developments in the B2C sector of economy was the Reserve Bank of India (RBI) allowing "inter-operability" among Prepaid Payment Instruments (PPIs). These means that companies that have been working through e-commerce platforms gained the advantage of being able to use alternative payment options in their day-to-day operations, such as digital wallets, prepaid cash coupons and prepaid telephone top-up cards, which are the preferred methods of payments by the Indians (United Nations, 2017). Among shopping categories, the online demand for electronics was growing the fastest (reaching 48 percent of the total retail value by 2018), whereas the demand for books purchased online decreased in the observed period of 2016-2018. The demand for apparel and footwear was growing the fastest among the predominantly rural regions of the country, since those consumers are not able to physically reach the stores located in the big cities. Therefore, availability of the popular brands online helped to attract customers to the online distribution channels (IBEF, 2018). Deep discounting and promotional sales were seen to have the greatest effect on the online sales in India.

The **Indian B2B segment** of e-commerce has been growing more slowly in comparison to B2C, mainly due to higher entry barriers, such as strict regulatory and taxation laws, necessity for long-term arrangements with the rail, road and ports (United Nations, 2017). Established B2C companies started to provide a digital platform for small businesses and sole traders in order to reach the unused potential of India's B2B e-commerce. Their initiatives *("Assisted commerce")*, together with the Indian Government allowing 100 percent FDI in the B2B e-commerce, spurred the fast growth of the B2B sector. Platforms provided by domestic B2C companies allowed even the smallest companies to participate in e-commerce, whereas massive investments from globally suc-

cessful companies like Alibaba and Walmart fostered the establishment of new B2B companies and joint ventures (United Nations, 2017).

Growing investment from the established market players were among the main growth factors of the Indian e-commerce B2B sector during the observed period, as their financial investments were strengthened with industry expertise brought from the foreign markets. The most significant recent investment in India's B2B sector include the Amazon launch of an online B2B market place in India where small and medium enterprises (SMEs) can purchase and sell products. DesiClik, a US based company, established a joint venture with Indian Gifts Portal (IGP) in order to offer a wide range of B2B solutions. Moreover, Power2SME, one of the largest B2B online marketplaces in India that provides raw materials to SMEs, has managed to raise 36 million USD in September 2017, in order to invest in the technology, sales, marketing and geographic expansion (United Nations, 2017).

The rapid growth of the e-commerce sector has posed several challenges for the companies, with improvements in logistics and warehousing being among the most crucial. The warehousing and logistics sectors are expected to attract nearly 2 billion USD by 2020, increasing the reach of online retail companies (IBEF, 2017).

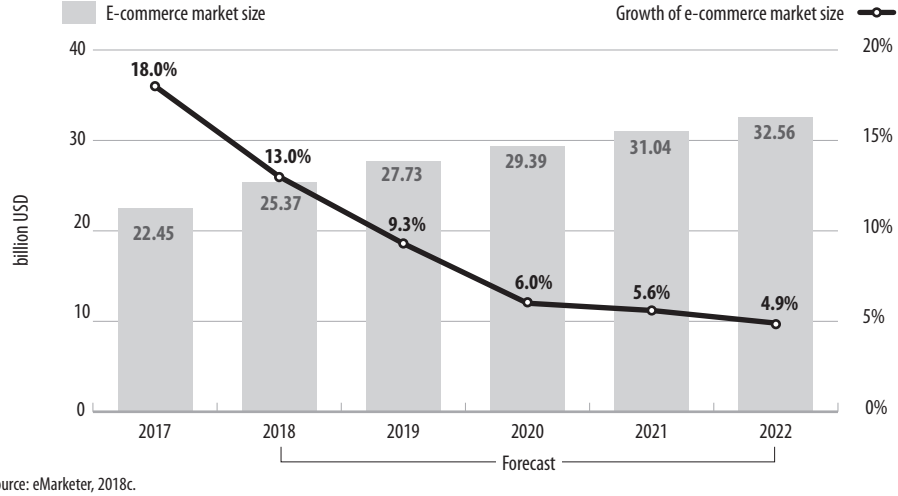
3 Brazil

Brazil is the only economy in South America to rank in the top 10 worldwide retail e-commerce markets (eMarketer, 2018c). There is a double-digit growth forecast for 2018. It is expected that Brazil will remain in 10th place (Figure 6). The initial growth of the industry was prevented by several barriers Brazil was facing. One of them was the world economic crisis that instantly reduced the growth of economies all around the world. Other obstacles that were preventing the growth of Brazil's e-commerce retailing were high taxation, enormous duties paid on the imported and exported goods that accounted from 80 to 100 percent, and poor logistics.

Brazil's B2C e-commerce revenue was $16.8 billion in 2016 and reached $18.9 billion in 2017. It is expected to grow even faster in the next years. The B2C e-commerce sector in Brazil started to increase when the percentage of people using the Internet increased as well. In 2016, 115.64 million people used the Internet (Statista, 2018e), with 38 percent or 38.1 million people shopping

online (Welie, 2016). Consumers are adapting the trends to be online and to use the Internet and mobile phones more, even though most of them still prefer buying goods in brick-and-mortar stores. However, before they make a purchase they use websites to compare different products. Retailers are also trying to follow the trends by adjusting their websites to be easily accessible and available in different languages. Lately, they are also improving their websites in order to be mobile user-friendly, as people are buying more and more through their smartphones. One enormous issue is low dispersion of credit cards. 87 percent of the urban Internet users have a bank account, but only 65 per cent have a credit card (eMarketer, 2018c). They prefer paying for goods and services in cash. Another issue connected with the credit cards regarding the B2C e-commerce in Brazil is the fact that customers are used to paying with domestic credit cards where they can divide up the payment in instalments at 3-6 months, or pay on delivery (cash on delivery method), where they can check the product and its quality.

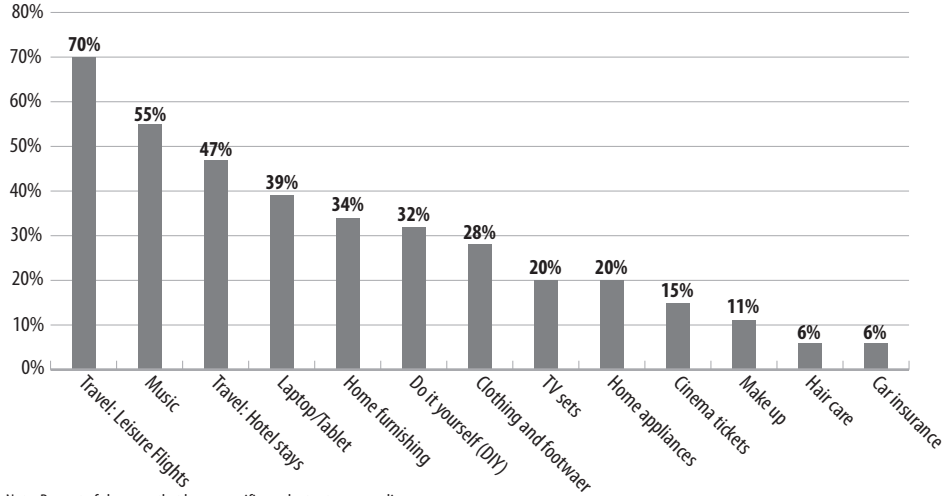
Figure 6. E-commerce market size and growth rates in Brazil



Source: eMarketer, 2018c.

49 percent of the online sales are still done in foreign markets, people usually buy products that are unable to find in domestic markets or are enormously cheaper in foreign markets. The most popular group of products that consumers are purchasing are travelling services and electronics (Figure 7). Discount sales like Cyber Monday or Black Friday have an enormous effect on online sales. Moreover, we can state that most of the online purchases are done through mobile phones.

Figure 7. Brazil's e-commerce B2C sales by category



Note: Percent of shoppers that buy a specific product category on-line.

Source: Welie, 2016.

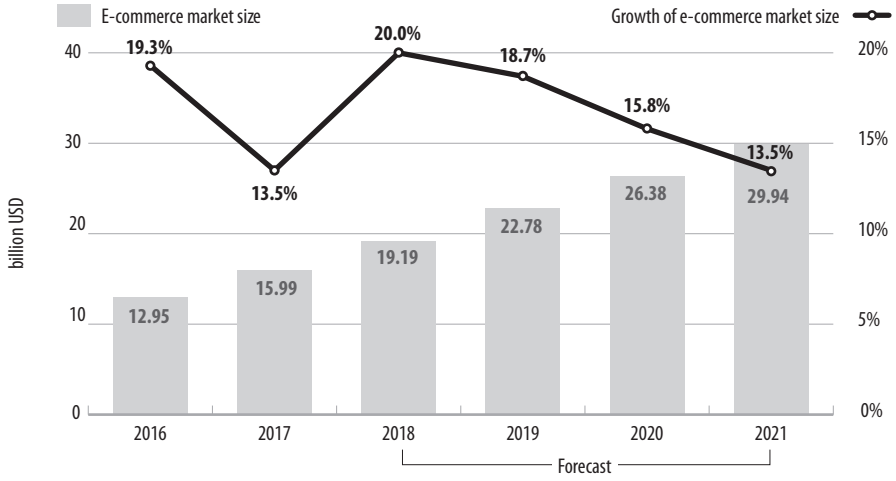
The B2B e-commerce sector is lagging behind compared to B2C, with $3.55 billion in 2017. Lately, investment in digitalization and adaptation to B2B e-commerce is happening so fast that the growth of B2B is expected to overcome the growth of the B2C sector in the near future. Manufacturing industries, on average, get most of the revenue through e-commerce, compared to other industries. In Brazil, the revenue from manufacturing is more than 20 percent of the total e-commerce revenue (Euromonitor, 2018). Brazil's B2B sector in 2017 placed around 38 percent of orders online but received less than 15 percent of the total business. In the agricultural sector there were only 12 percent of orders received online, with more than 40 percent of orders placed online. It is expected that the agricultural sector will migrate more to e-commerce B2B in the future, the same as other sectors, such as energy and utilities, manufacturing, and IT and communications (Euromonitor, 2018).

Government initiatives have provided different options to boost the B2B sector. One of them is the Integrated System for Payment of Taxes and Contributions of Micro and Small Companies (Simples National), which is an optional taxation regime that allows unified collection of municipal, state and federal taxes. This system helps companies to avoid double taxation and to benefit from it, by paying lower taxes (United Nations, 2017).

4 Russia

The Russian e-commerce market has been growing continuously even though the average growth rate over the last five years was slightly lower that the global average (23 percent and 24 percent respectively, Figure 8).

Figure 8. E-commerce market size and growth rates in Russia



Source: eMarketer, 2018b.

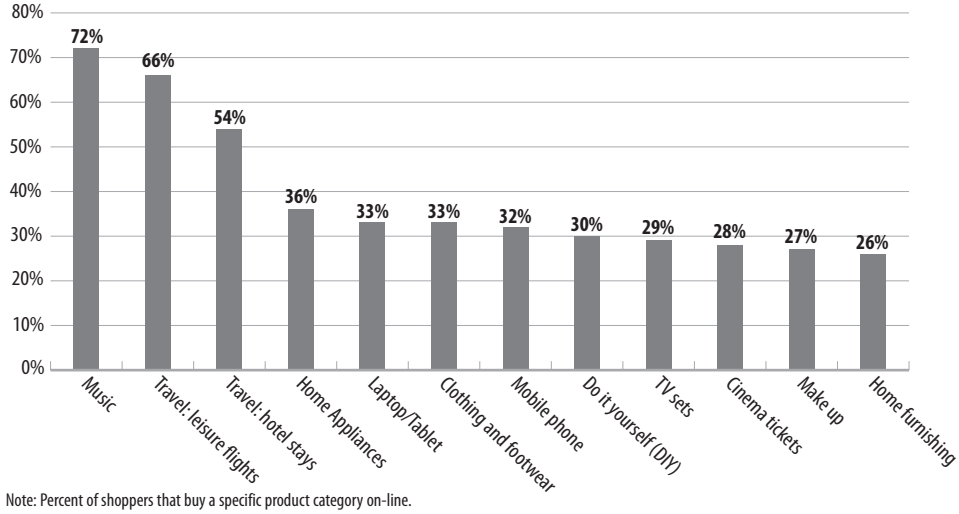
The growth of e-commerce was slowing down simultaneously with the economic growth of the country (Ecommerce Foundation, 2016). Approximately 70 percent (85.8 millions) of the population use the Internet, whereas almost 25 percent (30 millions) shop online. Although 61 percent of the population use smartphones, mobile sales represented only 15 percent of the total online sales in the country in 2015 (Ecommerce Foundation, 2016). But as the population started to adapt to the mass culture of online shopping, the share of mobile sales in the national e-commerce sales increased to 33 percent by 2018 (eMarketer, 2018b).

The **B2C sector** of Russia's e-commerce was growing with double-digit growth throughout the observed period, however, from 2015 on growth started to slow down (falling from 17 percent a year in 2015 to 12 percent by 2017) (Statista, 2018g). The extremely high popularity of O2O (Online-2-Offline) can be explained by the general mistrust of the population to the online/mobile payment methods. The reason behind it is a comparatively high proportion of fraud offers in the initial stage of e-commerce development and later the low-quality delivery services (Zaharov, 2011). Another trend in the Russian B2C

e-commerce is the popularity of the cash on delivery paying method. For a significant portion of buyers, it is more convenient to pay on the delivery than paying online using credit cards (Ecommerce Foundation, 2016). Even though the latest reports demonstrate that the population is migrating from cash on delivery to paying online using cash cards or other options, skepticism about the security of the transactions is still quite high (Perova, 2016). In the case of shopping online from the foreign markets, where users actually do not have an option of paying on delivery, Russian shoppers are more comfortable to pay for the goods online using their credit cards in comparison with purchasing from domestic online stores (Perova, 2016).

Travel flights/stays, electronics and home appliances have the highest cumulative share among other categories of e-commerce (Figure 9). In comparison to the other BRIC countries, the share of clothing and footwear is still relatively small, potentially due to the low popularity of shopping clothes online (Ecommerce Foundation, 2016).

Figure 9. Russian e-commerce B2C sales in 2016 by category



Note: Percent of shoppers that buy a specific product category on-line.

Source: Ecommerce Foundation, 2016.

The development of the **B2B e-commerce market** in Russia was hectic, fast-paced and limited by the number of obstacles, coming from both inside and outside the reach of the companies, such as incomplete taxation and legislation rules, regarding the Internet commerce and containing plenty of loopholes which were actively exploited both by companies and corrupt government authorities

(Zaharov, 2011). Moreover, for a long-time Internet resources were utilized predominantly for communication and negotiation with old established clients, such as order renewals or price negotiations. At that stage of B2B e-commerce development in the country, companies were not perceiving e-commerce as a strategic channel of sales and growth stimulation.

The main reasoning behind it was simply the fact that most of the small and medium enterprises (SME) could not afford to invest into the development of their own platforms or even upgrading their IT infrastructures to the adequate level (Kozhevina and Trifonov, 2014). Since 2009, the Russian e-commerce market has gone through significant changes, including the fast-developing legislative environment and the emergence of big online marketplaces, providing access to e-commerce for SMEs (Zaharov, 2011).

Conclusion

The BRIC countries play a significant role in e-commerce today and are expected to gain an even larger share of the global e-commerce by 2020, with China and India as the main drivers of the growth. The BRIC countries share common characteristics like the predominantly young population, growing economies and developing infrastructure, which are the three main factors behind the intensive growth of the e-commerce sector in their economies.

Though in most cases the e-commerce development in these countries first stumbled due to underdeveloped legislation and infrastructure, thanks to the fast pace of the overall economic development the e-commerce industries of the BRIC countries achieved higher growth rates than in the more developed countries (particularly China and India). Based on our research we predict that the growth will continue but the pace will slightly decrease. Nevertheless, one of the important factors we must be aware of in the future is the inevitable 5G network and the Internet of Things, which will evolve and globally impact the e-commerce market even more.

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III.

THE BEST PRACTICES IN B2B AND B2C MARKETS

Daša Farčnik, Ivana Dimov, Nuša Erjavec, Katja Kobilšek

AMAZON

Introduction

The world's largest online retailer Amazon.com, Inc., (further referred to as Amazon) was founded by Jeff Bezos in 1994 with a clear and ambitious mission: to become the Earth's most customer-centric company. The focus on customer has translated to excellence in service, widest product range with an offering of more than 480 million products, and the highest customer satisfaction score ever recorded in any service industry (ACSI, 2018). Amazon has expanded globally and operates around the world through a combination of globalized delivery and logistics platforms with over 300 million users worldwide (MSG, 2018).

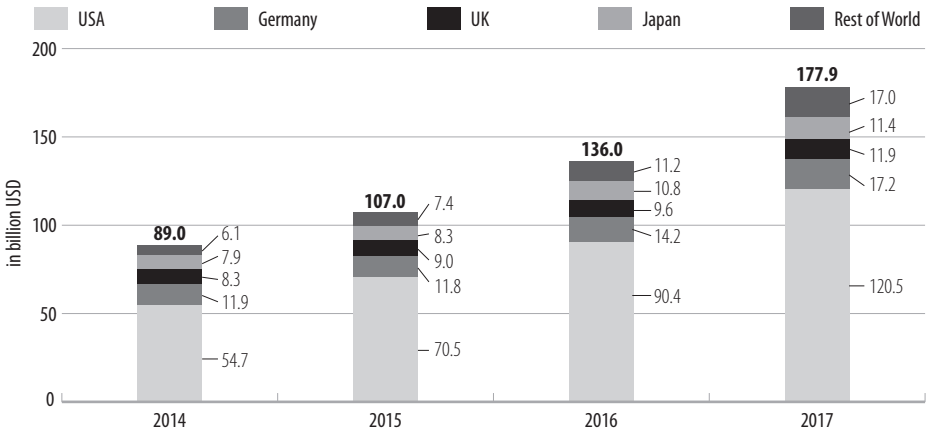
This chapter describes Amazon's evolution and expansion into an e-commerce giant with a special focus on the business model and its focus on the consumer that can serve as the best practice and/or a benchmark for other e-commerce companies around the world. A special attention is given to the impact of the company on both consumers, companies and competition and is referred to as an Amazon effect. We also highlight a relatively small market share of Amazon in Slovenia and speculate on Amazon's decision to both launch an Amazon.si website as well as the possibility of Slovenian companies to sell on Amazon.com.

1 About Amazon

Amazon, with market capitalization of a trillion US dollars (929.34 billion as of September 6, 2018) presents 6.4 percent of the e-commerce total sales globally and is contributing to almost 50 percent of the U.S. e-commerce market (CNBC, 2018). In 2017, the net revenue amounted to almost $178 billion, up from $135.99 billion in 2016. Figure 1 depicts the distribution of revenues by market and region. Approximately two thirds of the revenues were gener-

ated in North America. Amazon Germany (Amazon.de) is the second largest by market share in the company's total revenue, followed by Amazon United Kingdom and Amazon Japan. So far, Amazon has had a relatively small presence in China, India and Latin America (Statista, 2018a).

Figure 1. Annual net sales of Amazon in all markets from 2014 – 2017



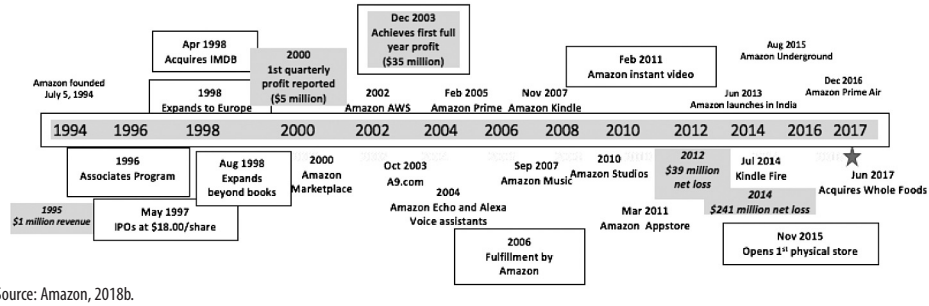
Source: Statista, 2018a.

The company currently employs 566,000 workers worldwide, which is a 40 percent increase from 341,400 employees in 2017 (Statista, 2018b). Out of 25 different categories, the Electronics and Media categories accounted for 50 percent of the company's total revenue (Digital Commerce 360, 2018). However, recently, the company has started investing in brick-and-mortar stores to integrate online and offline shopping experience. Brick-and-mortar stores offer a more personal shopping experience but they are also used as a small warehouse or pick up point for customers to collect their orders. Seattle was the location of their first bookstore in year 2015, followed by other 15 stores across the U.S. (Amazon, 2018a).

2 Amazon's success story

Amazon has expanded into a multimillion dollar business in the past 24 years. The Amazon timeline (Figure 2) illustrates important milestones in the development of Amazon's business model, including acquisitions, revenues, profit, as well as major product and service launches throughout the years.

Figure 2. The Amazon timeline



Source: Amazon, 2018b.

Aiming to become "the Earth's biggest bookstore", Amazon challenged the established brick-and-mortar traditional bookstores, touting the convenience of online shopping, a wide selection of product categories, discount prices and revolutionary customer service. Over the years, Amazon has disrupted the online retail industry and transformed itself from an e-commerce player to a powerful digital media platform focused on its low margins, long-term growth opportunities and innovation.

Amazon business strategy is based on four principles: ***customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking*** (Dudovskiy, 2018). The American e-commerce succeeds attributable to combination of economies of scale, innovation of different business processes and a constant business diversification (Dudovskiy, 2018). Innovation was leveraged by technology and was and still remains a source of competitive advantage and presents an entry barrier to the companies that want to imitate or improve its business model (MSG, 2018).

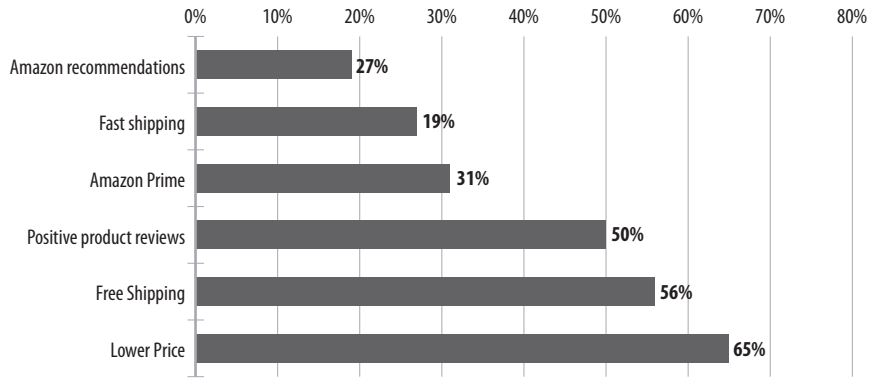
In this section we first focus on the company's ability to revolutionize the way we shop online by building the next generation platform and infrastructure that gives customers extraordinary choice, scope and value, and second on the company's profitable diversification strategy. In the very beginning, Amazon made it clear that it would provide customers with the most convenient way to buy a wide variety of books at a significantly lower price than in brick-and-mortar stores.

2.1 The customer in focus

The wide availability of substitute products and practically absent switching costs are giving the Amazon customers a high bargaining power that translates

to small markups, steep discounts for the regular members, timely and even express delivery, and at times, waiving off the shipping costs (MSG, 2018). The most common factors that drive the U.S. consumers to purchase on Amazon.com (see Figure 3) are lower price, free shipping, and positive product reviews (Statista, 2018b).

Figure 3. Most popular reasons to shop via Amazon in the U.S. in October 2017



Source: Statista, 2018b.

The focus on customer resulted in different innovations from "1-Click" ordering in the early years to machine learning algorithms for using data to personalize product offering with a recommendation system based on browsing and buying history. Thus, 19 percent of Amazon customers identified Amazon's recommendations to be the most important factor to visit Amazon and not the competition (Statista, 2018b). Actually, the company has reorganized itself around its ***Artificial Intelligence (AI) and Machine Learning (ML)*** efforts (Morgan, 2018) and spent approximately $23 billion on R&D in 2017 – more than any other U.S. company (Molla, 2018). Machine learning drives their algorithms for demand forecasting, product search ranking, product and deals recommendations, merchandising placements, fraud detection, translations, and much more (Leswing, 2017). The most recent Amazon's invention is Echo Look fashion camera which analyzes the user's clothing style and makes fashionable recommendations through machine-learning algorithms (The Verge, 2018).

Amazon enabled customers to post reviews of the entire range of products offered on the website, which created a transparent e-retail space, making manufacturers accountable for the quality of their products (Mullaney, 2017). Still in 2017, the reviews that were directly seen on product pages were an important driver for choosing Amazon when making online purchases, since half of the

U.S. Amazon buyers still identify product reviews as the most popular reason to buy on Amazon.com (Statista, 2018b). In this way Amazon is empowering customers and increasing their trust and loyalty.

In 2005, Amazon offered its core service, ***Amazon Prime*****,** which is an annual membership program that includes free shipping, Sunday delivery, streaming of movies and TV episodes, borrowing e-books for Kindle devices, and in 2018, the company introduced Free Same-Day Delivery on hundreds of thousands of products for customers in more than 35 cities around the world (Amazon, 2018a). Amazon Prime has more than 100 million subscribers globally and approximately 60 percent of American households in 2018 had at least one Amazon Prime account (Amazon 2018b; Statista, 2018b). On average, Amazon Prime members spent 40 to 68 percent more than non-members in the same year (on average, $1,400 for members, compared to $600 for non-members in 2018) (Statista, 2018b).

2.2 Amazon's diversification

The concentric product diversification described above was followed by the introduction of Associates Program, Amazon Marketplace, and Amazon Web Services. Bezos's strategy of continuous evolution started in 1996 with ***Associates Program***, one of the first online affiliate marketing programs. It is a marketing tool for helping website owners, web developers, and Amazon sellers make money by advertising and selling millions of new and used products on Amazon.com (Amazon, 2018a). Marketers recognize Amazon as an opportunity. Almost two thirds of advertisers (63 percent) are planning to increase their Amazon advertising budget over the next 12 months, compared to 54 percent for Google and 53 percent for Facebook (ClickZ Intelligence, 2017).

In November 2000, the company started sharing its Amazon.com e-commerce platform through ***Amazon Marketplace*** with its direct competitors who could sell their products through its high-traffic website that offers a superior customer experience, including better search and functionality and easy checkout. Amazon offers customer reach that is unimaginable through any other marketplace, since more than half of all product searches in the U.S. start on Amazon.com (Forbes, 2018). In the first quarter of 2018, 53 percent of paid units were sold by third-party sellers (Statista, 2018b). Amazon offers two selling plans; (a) the professional selling plan is available for $39.99 monthly subscription fee plus per-item selling fees which vary by category, and (b) an individual plan which costs $0.99 per item sold plus per-item selling fees (Amazon, 2018a). The first time in 2017, the units sold

by marketplace sellers exceeded those sold by Amazon itself. They estimated that the marketplace was responsible for $135 billion sales globally in 2017 and that by 2020, the marketplace will have grown to $259 billion (Entrepreneur Europe, 2017). Hence, it is not a surprise that Amazon is the largest online marketplace in the U.S. and ranked the third biggest worldwide, behind China's giants Taobao and Tmall (Digital Commerce 360, 2018).

Moreover, Amazon has launched a supplementary program for third-party vendors named ***Fulfilment by Amazon (FBA)***, whereby vendors could send their inventory to Amazon's fulfilment centers for warehousing and order fulfilment, using Amazon's efficient logistics system and customer service program. Not only did Amazon share its fulfilment and customer service capabilities, it also analyzed data and provided each vendor with recommendations, such as inventory quantities and new selections to add (Amazon, 2018a). This free service helps vendors grow their business – hence the two can grow together. There was a 70 percent increase of active sellers using Amazon's fulfillment service in 2016 (Statista, 2018b).

Most people know only the e-commerce side of Amazon, but it is much more than that. In 2006, Amazon launched a cloud computing platform called ***Amazon Web Services*** (AWS) that has now millions of customers, generating $17.5 million in revenues (Statista, 2018b). Additionally, 68 percent of all current enterprises are using the AWS platform around the world, including government agencies and universities (Statista, 2018b).

All three pillars – Marketplace, Prime and AWS – have been instrumental to Amazon's success over the past decade but there is certainly a room for a fourth pillar. It could be ***Amazon Studios***, which is producing video content for Prime Video, but it's also possible that ***Echo products*** with ***Alexa voice assistant*** could end up being the fourth pillar (Novet, 2016). Companies have started to integrate Alexa into many products, from LG refrigerators to Ford cars (CNBC, 2017). At the moment, 35.6 million people in the U.S. use Amazon Alexa, which means that the company is investing in the right place for the future of shopping (Twentify, 2018).

3 The Amazon effect on the retail sector

Amazon has disrupted the way we used to shop. 310 million accounts in 2016 prove that the company has had a tremendous effect on consumers. It is

also an important employer, especially when also its delivery fleet is taken into account. However, the company is also a facilitator since Amazon Marketplace and Amazon's biggest and most modern logistics infrastructure have become a huge support for small businesses in terms of profitability. In 2018, the company shared information about the extent of its merchant channels for the first time, where more than one million US-based small and medium size companies sell their products domestically and to more than 130 other countries through Amazon. Therefore, 20,000 such businesses had more than one million US dollars in sales in 2017, and 60 percent of those selling in online marketplaces received more than half of their online sales from Amazon.com (Amazon, 2017). Amazon says that 900,000 jobs were created outside of the company as a result of the Amazon Marketplace for small businesses and entrepreneurs (Investopedia, 2018).

Also, in Europe Amazon has created opportunities for millions of small and medium size companies that have taken to the Internet to attract over 340 million of European online buyers to buy their products (Amazon, 2018a). Amazon's third-party sellers accounted for more than 50 percent of the company's sales during the third quarter of 2017, generating close to $23 billion in revenues (Statista, 2018b).

Due to the Amazon Effect, the entire brick-and-mortar retail industry is slowly shutting down and every year the list of store closings and bankruptcies lengthens (Forbes, 2018). JCPenney is closing 140 stores (14 percent), Macy's is closing 70 stores (15 percent), Sears is closing 150 stores (15 percent) and HHGregg 220 stores (40 percent) (USA Today, 2017). Although Amazon itself is generating more jobs, traditional retail stores are decreasing employment. Therefore, it is estimated there will be 2 million job losses over the next 5 years (CNN Money, 2017).

4 Amazon in the Slovenian market

In Slovenia, there are over 3,000 small and large online stores, with Mimovrste.si being the one with the highest number of registered users and currently holding a 28 percent market share, followed by EnaA.com and Nakupovanje.net (Shopper's Mind, 2017). Amazon directly offers their services in 16 countries, however, Slovenia is not one of them. Still, Slovenian customers can buy products on other European Amazon sites, mostly the German, British and Italian sites. The market share of Amazon in the Slovenian online market

is relatively small and although it has grown in the past years it still amounted to only about 3 percent in 2017 and fell behind AliExpress and eBay (Shopper's Mind, 2017). Slovenia's small market, relatively low purchasing power, and the costs of localization (language obstacles and the legislation), together with the preference of Slovenian consumers to buy from domestic online stores, the biggest reasons why Amazon.si will not very likely be launched in the near future (Dujič, 2018). Indeed, according to the E-commerce Report 2017, Slovenian consumers trust domestic Slovenian e-retail platforms more (Shopper's Mind, 2017).

Regarding Amazon Marketplace, Slovenian companies are the ones that are missing on the list of European registered companies selling on Amazon EU (Amazon, 2018a), mostly due to the complexity and instability of the Slovenian legislation (Finance, 2018) as well as local specificities (Dujič, 2018). But the question is whether Slovenian companies really need the Amazon platform or can they survive without it.

Apart from having their own online stores, Slovenian companies can sell on Mimovrste.si, where the majority of suppliers are Slovenian companies, or on any other existing online platform. However, if Slovenian companies do want to sell on Amazon Marketplace, they have to register on Amazon.de, but due to legislation constraints they have to establish a subsidiary in the German market and sell as a German company. Therefore, taxes as well profits go to the German treasury (Finance, 2018; Amazon, 2018a).

However, legislation constraints and a relative small purchasing power of the Slovenian consumers could be seen as a disadvantage for Amazon in the Slovenian market. On the other hand, following the trends of online purchasing, there is still some interest in terms of marginal revenue for Amazon if we take into consideration that there are more and more Slovenian consumers who are buying on Amazon.com.

5 Managerial implications

Amazon's influence can be felt in almost every sector and it can be credited with a major contribution to inventing e-commerce as we know it. So, no matter what industry the company is in, there is something that can be learnt from Amazon's success story. The company has been following its main motto since the first day: ***"Put the customer first. Invent. And be patient."*** (Devlin, 2015).

Amazon has always been putting a lot of effort in personalizing customer experience. A significant growth of the company was contributed by their initiatives to involve recommendations in every step of the purchasing process. Knowing their purchasing habits so well, they have perfected the way of upselling and recommending products to customers, making it as effortless as possible for them. They have come up with the tactics of saying "Customers who bought this item also bought…" considering upselling or for instance, "The items you viewed." Furthermore, after customers make a purchase they soon receive an email with other product suggestions. Amazon has put a lot of emphasis on personalization, by collecting all possible data about its customers and using the information when sending personalized emails (Devlin, 2015). Those types of emails have proved to be more efficient than recommendations, achieving a high conversion rate (Devlin, 2015). Many e-commerce companies nowadays try to use the same tactics, but Amazon has the right data collection tools, which makes this process almost perfect (Forbes, 2018).

Amazon is built on a culture of innovation which it does not associate with money. The company believes the key to innovation relates to the courage to test a lot, learn from the failures, and be quick at improvising (Devlin, 2015). Thus, in Amazon, Artificial Intelligence and Machine Learning are now mainstream business tools. They are being applied across many industries to increase profits, reduce costs, and improve customer experiences. Consequently, Amazon's competitive advantage has been developed by using these tools. Before 2000, Amazon didn't make a penny of profit. Jeff Bezos has long maintained that investing in the future growth is more important than hitting quarterly earnings targets. The first full year profit was achieved in 2003 at $35 million according to Figure 2 and since then every year until today has been profitable, except for 2012 and 2014 (Amazon, 2017).

Conclusion

In this paper we have presented Amazon's e-commerce journey from zero beginning to the biggest e-commerce website in the world. The company has become a major global company that enjoys an internationally growing presence. Further growth can be expected from Amazon, based on the advances in product offering and various services, including original products, delivery, etc. However, the main contributor to the success has undoubtedly been the customer-obsession approach, which is clearly stated in the company's mission statement. All businesses around the world can take a lesson from Amazon

regarding improving customer experience and testing market opportunities by using the available technology. It should be no surprise that Bezos has recently teased innovations like product delivery by drone, as well as predictive product delivery – all in an effort to remind the customers that Amazon wants them to keep buying – and it will try to meet them anywhere necessary to make that possible. The company has effectively created a new model which emphasizes a one-on-one relationship with the customer, informed by data collection, optimized with machine learning, and nurtured with other forms of AI.

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ALIBABA

Introduction

The story of Alibaba started in 1999 in Hangzhou, China, with Jack Ma and 17 co-founders, who had a vision to empower small businesses to become new domestic and international leaders. Today, Alibaba is a network of interconnected products and services with the emphasis on technology development, cloud computing, logistics, digital entertainment and local services. Its core business is still focused on e-commerce, mostly through platforms Taobao, Tmall and AliExpress, with seven million merchants and 800 million items for sale. By providing its operations in over 200 countries, Alibaba is the world's largest retailer with more than 66,000 employees and an annual revenue of 36 billion USD (Alibaba, 2018a). The total sales through Alibaba platforms exceed sales of Amazon and eBay combined (The Verge, 2014).

The purpose of this chapter is to provide an insight into Alibaba Group – to learn about its impact on consumer shopping and to better understand how to run a multi-billion dollar on-line company. The chapter first discusses the external factors and features of average Chinese consumers that influenced Alibaba's expansion, followed by an explanation of the ecosystem of Alibaba Group, its business model and key sources of competitive advantage. Business and marketing strategies that Alibaba is using to grow and expand globally are discussed next. Based on the available global sources and in-depth interviews with Chinese natives as well as with e-commerce experts, the chapter ends with implications and recommendations, relevant from the Slovenian perspective.

1 The ecosystem of the Alibaba Group

The evolution of the Alibaba ecosystem can be divided into chronological stages that go hand in hand with the development of e-commerce in China. The

early stage of the Alibaba ecosystem started in 1999 when Alibaba began its development as a B2B online marketplace. In the beginning, with Alibaba.com as a core, the structure was very simple, since the Chinese online market was not very well developed yet, which was one of the main challenges to overcome (Huang et al., 2009).

Table 1. Combination of Western companies

Alibaba company	Company's main activity	Similar western companies
Alipay	Online payments	PayPal
Aliyun	Cloud services	Amazon web services
Aliyun Appstore	Mobile apps	Google Play
Aliyun OS	Mobile OS	Android
AutoNavi	Maps and navigation	Google Maps
InTime	Retail outlets	J. C. Penney
Juhuasuan	Group buying	Groupon
Kanbox	Cloud storage	Dropbox
Laiwang	Mobile messaging	WhatsApp
Lyft, Kuaide	Car service, ride sharing	Uber
Taobao	C2C e-commerce	eBay
Taobao Travel	Online travel booking	Orbitz
Tmall	B2C e-commerce	Amazon.com
TutorGroup	E-learning	Kaplan
Weibo	Microblogging	Twitter
Xiami	Music streaming	Spotify
Youku Tudou	Streaming video	Hulu

Source: Quartz, 2014.

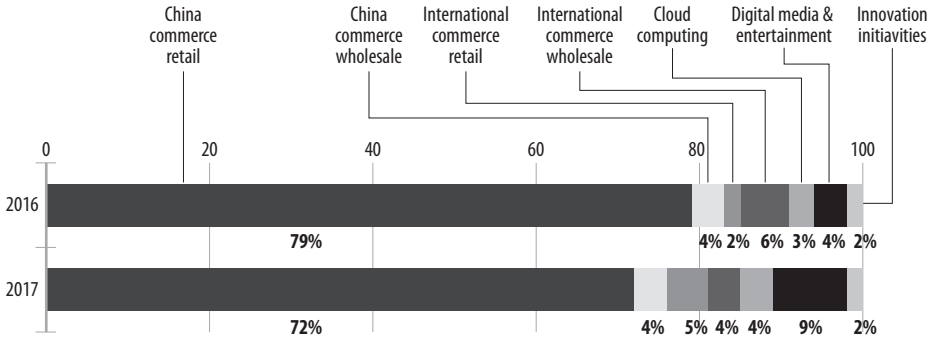
In the beginning of the 21th century, Alibaba managed to successfully overcome the Internet bubble and started to grow tremendously. The reason for that was also increased outsourcing manufacturing to China. By moving towards C2C, Alibaba started to expand very fast. At that point, the competition on the online auction market between Alibaba and eBay became fierce. However, eBay was forced to withdraw from the Chinese market due to the lack of specific cultural knowledge and adoption to the local peculiarities. In 2005, Alibaba also acquired Yahoo China and became Chinese C2C online auction leader (Huang et al., 2009).

Due to the fast growth of the Alibaba ecosystem in a very short time, it reached its mature phase early in 2008. In 2007, Alibaba Group was also listed on the

Hong Kong Stock Exchange. And in 2014, Alibaba was listed on New York Stock Exchange as the largest IPO of all time, raising $21.8 billion for the company (The New York Times, 2018). At that time, Alibaba started with a cloud computing strategy and put emphasis on new technologies (Huang et al., 2009), developing into a multi-sided platform (MSP) and enabling direct interactions between distinct types of affiliated customers in the global competitive scenery and networked society. Today, Alibaba is one of the largest and most known commercial online MSPs (see Table 1 for visualization of the Alibaba ecosystem in comparison to Western companies/services).

Alibaba Group Holding Limited is operating through its subsidiaries on e-commerce and mobile platforms in China (Taobao, Tmall) as well as internationally (AliExpress), with the overall revenue of US$39,898 million, 17 percent growth of adjusted EBITDA to US$3,101 million and market capitalization of US$ 417 billion (Alibaba, 2018b). While the majority of revenue is from retail commerce, digital media and entertainment are growing (Figure 1, Table 2).

Figure 1. Annual revenue structure of Alibaba in 2016 and 2017, by lines of business



Source: Alibaba Group, 2017.

Table 2. Source of revenue by lines of business

Line of business	Source of revenue
Core commerce	China retail market places – 1688.com, AliExpress, Alibaba.com, Lazada.com.
Cloud Computing	Provision of services – data storage, elastic computing, database, large scale computing, web hosting and domain name registration.
Digital media and entertainment	Advertising and subscription revenue provided by Youku Tudou and mobile Internet services revenue from UCWeb business.
Innovation initiatives	Revenue generated by AutoNavu and YunOS and fees from Ant Financial related to the SME loan business.

Source: Alibaba Group, 2018b.

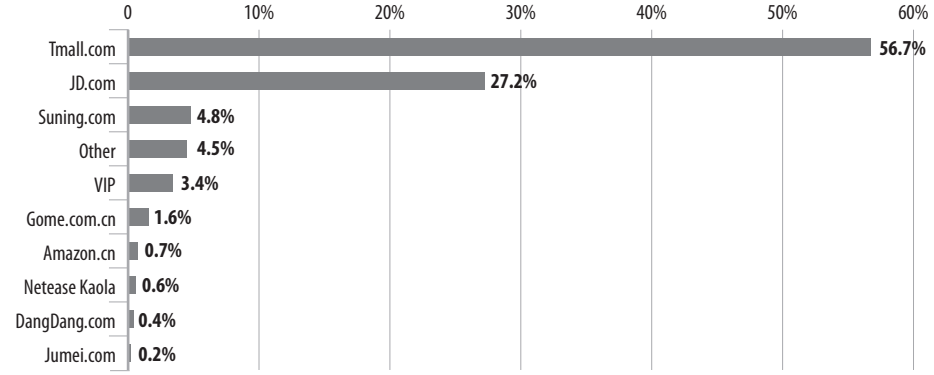
Alibaba holds a 56 percent market share of online shopper websites in China and JD.com is by far its biggest competitor with a 27.5 percent market share. The explanation for their different strength in the market comes from differences in technology, logistics, commodity services and brand strength (Table 3 and Figure 2 present other companies in B2C online shopping in China).

Table 3. Comparison between Tmall and JD.com

	Tmall	JD.com
Technology	Advantages on the improvement of the technological capability (financial support of its parent company Alibaba Group).	Technological capabilities such as self-run payment are weaker due to lack of funds and investors.
Brand	Good reputation and high recognition due to Alibaba Group's influence.	Fast development of the brand, mostly because of genuine product guarantee and success in self-run logistics.
Logistics	Dependent on the third party logistics.	Own logistics and distribution system.
Commodity Service	The biggest B2C platform in China. Sales are provided by sellers, which is hard to control and manage the quality.	Self-run business mode (products are purchased directly from manufacturers and then sold to customers). Accordingly, additional services are provided.

Source: Guan et al., 2018.

Figure 2. Market share of B2C online shopping websites in China in 2nd quarter of 2017



Source: iResearch, 2017.

2 External factors that have influenced Alibaba's expansion

It is important to acknowledge some of the factors of the macro environment and the specifics of Chinese consumers in order to fully understand Alibaba's rise (Table 4 summarizes the factors). The global crisis in 2008 motivated the

Chinese government to start promoting consumerism, as the existing growth model was highly dependent on investment and export, threatening to ruin the economy. The base of potential consumers for the emerging e-commerce companies enlarged. Simultaneously, Internet coverage grew all over the country, almost tripling the number of the users in the last decade: from 298 million in 2008 to 802 million today. Staggering 98 percent of the Internet users access it through mobile devices (Forbes, 2018a). Low prices of smart phones made them available to the wider population, resulting in 1.52 billion mobile subscribers in China (Statista, 2018). Mobile devices together with the Internet access allow even the Chinese from rural areas to go online. An average Chinese spends two hours per day surfing online through a mobile device, out of which 30 minutes are spent solely on Taobao – three times more than a typical American consumer spends on Amazon (BCG, 2017).

Table 4. Characteristics of the Chinese market and consumers that have contributed to the rapid growth of Alibaba

Factors	Explanation	Opportunities for Alibaba
Macro Environment		
Stimulating consumerism	Stimulating consumer expenditures for future growth.	Chinese start spending more.
Rapid expansion of internet	Internet infrastructure was expanded.	High share of population can be online.
High usage of mobile devices	1.52 billion mobile subscribers in China.	Spending more time online.
Prices of real estate	High prices and taxes on real estate.	High value added for all vendors.
Access to products/ services	Many obstacles when accessing goods.	Improved logistic systems.
Features of an average Chinese consumer		
Brand consciousness	Brands signal social status.	Alibaba's Tmall offers various brands.
Price sensitivity	Very price sensitive for ordinary goods; low sensitivity for brands.	Many substitutes that differ with prices.
Lack of trust	Trustless payment methods.	Trustworthy payment method.
Lack of loyalty	Consumers are not loyal.	Plenty of new choices every day.
Shopping is a journey, not just a transaction	Overall online experience matters.	Wide choice of activities, besides shopping.

Source: Coursera, 2018.

High prices of real estate stipulated more store owners to use Alibaba's platforms (Clark, 2016). It is not only cheaper and allows 24/7 working hours, but also Alibaba's high edge technology collects valuable data on customers that

are later used for efficient targeting of specific consumer groups. Besides that, Alibaba has added a huge value with its delivery system, allowing the majority of the population to access the needed products by simply ordering them online.

The Chinese are specific customers as well, being shaped by their culture. People purchase goods that send signals of their status, seeking for the social recognition (Coursera, 2018). Therefore, China is a great market for selling luxurious goods, opening new markets and profitable segments for Alibaba. The Chinese are ready to pay high prices for the branded goods. Differently, to the goods that are not a matter of status the Chinese are quite price sensitive (Harvard Business Review, 2013). Alibaba can benefit from the sensitivity by offering a range of substitutes with various prices. Lack of trust has until recently been another high issue for the Chinese to shop online. It definitely contributed much to the eBay failure in the market, as the company demanded from the consumers to pay for goods prior to receiving them. Alibaba had gained trust by introducing AliPay – the paying system which collects the money only after a consumer confirms being satisfied with the product. AliPay is now used by about 520 million people, not just to shop on Alibaba but to pay bills, buy lunch or send money to family (The Economist, 2017).

Chinese shoppers go online to socialize. They are prone to experimenting and are not loyal. The shopping is about the journey rather than the transaction only. They find ideas for their purchases while watching different kinds of content. Alibaba has adapted itself to this need, enabling people to socialize, watch videos (Youku), read news (Alizila), and follow Chinese influencers in the search for shopping ideas.

3 Alibaba's business model – the iron triangle

"The Iron Triangle" strategy is the vital part of massive success of Alibaba's business model. It is a perfect mix of e-commerce, logistics and finance edges; these ensure wide variety of goods and services with speed and reliability of delivery (Clark, 2016).

The E-commerce Edge is based on two customer platforms, Taobao and Tmall. Taobao's most important source of income is selling advertising place and promoting merchants, while a vast majority of smaller merchants sell their products on the platform for free. In 2017, its advertising revenue was 16.8 billion USD (out of total 23.2 billion USD) (eMarketer, 2018). Like in Google's

AdWords, the sellers bid on keywords to ensure a better placement in Taobao. To avoid or alleviate any possible dispute between consumers and merchants, Alibaba assures client service managers "xiaoer" that can shut down merchant entirely if necessary to protect customer interests. By bringing the vibrancy of the Chinese traditional markets online, customers are always in the first place for Alibaba (Clark, 2016). Tmall is a retail platform devoted to luxurious brands, providing the infrastructure to host brands' storefront for a fee. On Tmall and Tmall Global there are popular Chinese brands (Xiaomi, Huawei) as well as foreign brands (Nike, Gap, L'Oréal), including big US retail stores, such as Costco, Macy's or even Amazon (Alibaba Group, 2018b).

The Logistics Edge is how Alibaba binds together buyers and sellers. The secret lies in low cost delivery services, which are outsourced. The three biggest Chinese courier companies, often referred to as the "Tonglu Gang", have played a crucial role in Alibaba's fast development. Through reliable delivery, Alibaba could earn trust among its customers as well as merchants (Clark, 2016).

The Finance Edge is based on Alipay, by far the most used online payment tool in China with more than three-quarters of a trillion dollars in online transactions a year (three times more than PayPal). Today, Alipay has 622 million users in China, handling more than half of the Chinese payments market (Financial Times, 2018). When paying with Alipay, customers' accounts are debited only when they are satisfied with the order, enabling customers to experience fast, easy and safe online payment (Clark, 2016). Ant Financial grew out from Alipay and is an affiliate financial services company that offers loans to small businesses on Taobao. According to CNBC, with a worth of 150 billion dollars, Ant Financial exceeded Goldman Sachs in June 2018 (CNBC, 2018) and is also collecting a massive amount of user data. However, it is not clear how much access to this information the Chinese state has (Financial Times, 2018).

4 Alibaba's business and marketing strategy

4.1 Alibaba's business strategy

Alibaba's business strategy can best be described by Jack Ma's words "Make it easy to do business everywhere." (Exploring Markets, 2018). The initial goal behind Alibaba was simple – to help small businesses to succeed and grow with the help of the Internet. In their journey before the IPO they faced many challenges, such as competitors, need for stability and innovation, and regula-

tions. Alibaba was not about making quick profits, instead, the focus was rather on long-term development, building an ecosystem that was both healthy and sustainable. It also welcomed potential investors with the same philosophical approach (Exploring Markets, 2018).

In the early stages of the company, the sole strategic focus of Alibaba was on their domestic market. Throughout the years, they adopted a diversification strategy, including media and entertainment services in their portfolio, engaging and keeping customers from spending their money elsewhere. At present, 89.6 percent of the company's total revenue still comes from their domestic market (Statista, 2018). Even though Jack Ma emphasizes company's global ambitions and Alibaba is expanding into other markets (investment in Asian retailer Lazada, Indian e-commerce company Paytm, and US start-ups Magic Leap, Lyft and Snap), Amazon is still the major player in the global market.

The company's goal is to create a holistic solution for e-commerce in the future, including logistics, cloud payments and marketplaces, which will provide an opportunity for the merchants to do business anywhere. Cloud computing will most likely play a crucial role in the company's future strategy, which is estimated to serve 2 billion consumers around the world in the next two decades (Forbes, 2018b). The company is already successfully combining online and offline channels into digitalized, smart phone based brick-and-mortar experience for its customers (the so-called "New retail"), specifically for groceries, fresh fruits, vegetables and seafood. One should notice that more than half a billion of existing customers already have Alibaba's apps (Tmall or Taobao), which diminishes customer acquisition costs and is evident in the increase of mobile share in revenues (to 75 percent in 2018) (Alizila, 2018).

4.2 Alibaba's marketing strategy

In the light of marketing strategy, the answer to how Alibaba has achieved such a success is quite simple - through market segmentation or target market, focusing on factors such as price, product, promotion and location (Yazdanifar and Tan Hunn Li, 2014). With respect of market segmentation, Alibaba focuses on demographic (age, gender, income, religion, nationality), psychographic (lifestyle, activities, interests, opinions) and behavioral segmentation strategies (response, usage, knowledge of a product). Another important strategy considering customer behavior is pricing and positioning of products. The idea is to augment revenue from different lines of business (Bhasin, 2018). In terms

of promotion, its digital ads are shown across the world. Below the line, they promote with hoardings, digital advertising and sales promotions and above the line with TV, print and radio (Bhasin, 2018). A visible example of Alibaba's influence on consumer behaviour is Singles' Day, the biggest commerce day in the world that takes place on November 11, promoting retailer's discounts on its platforms. In terms of sales, Singles' Day greatly exceeds Black Friday and Cyber Monday in the U.S. (Forbes, 2017).

The future of marketing lies in the data collected from companies' customers. The power of data collected by Alibaba is significant: data from customers engaging with brands, shopping on Taobao Marketplace, Tmall and entertainment sites like Youku. The company tracks users across these sites with a so-called unified ID, which enables them not only to recommend products to individual users but also to personalize the whole storefront. The trail the customers are leaving behind with browsing and buying behavior empowers brands to better understand, target, reach and keep the customers. At Alibaba, this is called "Uni marketing", due to unified IDs and customized tracking (Alizila, 2018). The company is also gaining experience with micro-influencing marketing, exchanging social media recommendations for customer discounts and combining off-line store experience with virtual reality (ChoZan, 2018).

5 Managerial implications and recommendations

In terms of managerial implications and recommendations, four aspects related to Alibaba should be considered. The first one is Alibaba's connection to China as the single largest potential target market, which due to its size should be part of global business growth strategies. In line with this, Alibaba's Tmall Global, an established online platform, enables lower initial investment and potential risks of entering for companies without China in-country business operations.

The second aspect is Alibaba as the world's biggest supplier directory that provides one-stop service access to a range of mostly Asian suppliers. China is globally known for its bulk manufacturing, low product prices and low commission rates. Alibaba provides not only the most comprehensive directory, but also helps fight frauds and low quality products with several levels of supplier verification program.

The third aspect is Alibaba as a competitive online platform for European/ Slovenian markets. Alibaba's site is currently set in seven different European languages. Given the foreign language proficiency of Slovenians and translation options available online, the language is not a significant obstacle for expansion. According to Shopper's Mind research (2017), Aliexpress is the only foreign e-commerce retailer that seems to be growing on a yearly basis in the Slovenian market (compared to Amazon and eBay). Its volume market share grew from 15 percent in 2015 to 23 percent in 2016. However, the average price of the purchase on Aliexpress is low, limited to affordable mobile accessories with substantial price advantages over local alternatives (Shopper's Mind, 2017). The potential of Aliexpress in Slovenia can be seen especially in product categories and segments of consumers that are willing to give up fast delivery for low price. In the short run, Aliexpress will probably not become a dominant player in the Slovenian market, where most purchases are done on e-commerce sites that are perceived as domestic/local and offer an option for paying upon delivery.

A range of strengths and weaknesses can be pointed to Alibaba, relative to other on-line retail providers in Slovenia (Table 5). Together with online retail providers, Alibaba faces several opportunities and threats in Slovenia.

Table 5. SWOT for Alibaba online retail in the Slovenian market

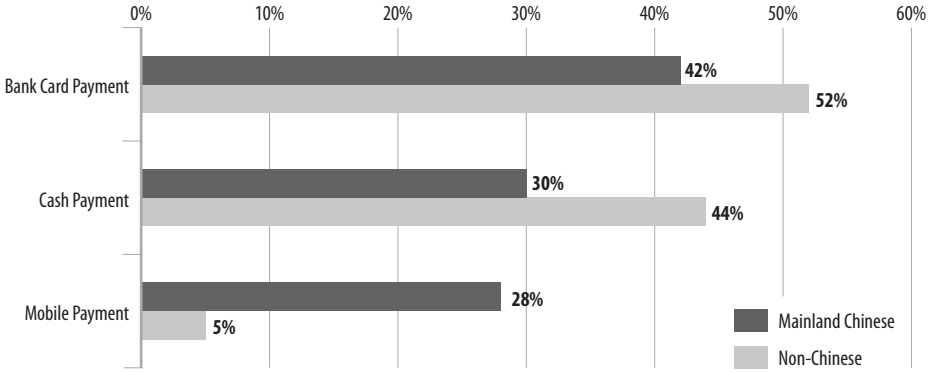
STRENGTHS	WEAKNESSES
• Scale of operations • Market share • Good relationships among merchants, consumers and third party dealers • Good position to become a leader in cloud computing • Low prices	• (Too) many sellers (hard to control) • Dependence on the Chinese economy • Long delivery times • Method of payment upon delivery not available • Lack of adaptation to specifics of the local culture
OPPORTUNITIES	**THREATS**
• Increase in demand of e-commerce portals • Favourable economic climate • Good geostrategic position – easy access to other EU countries as well as the Balkans • Growing share of mobile online shopping • Consumer protection in the EU to enforce trust in online shopping	• Competition among local e-commerce portals (mimovrste.si) • Influence of brick-and-mortar stores • Bureaucracy in Slovenia • Regulations and legislation • (Too) Small market • (Negative) perceptions of Chinese product quality

Source: Own research.

The fourth aspect is related to tourism. Europe is becoming a popular overseas destination for Chinese tourists (Nielsen, 2017). Therefore, it is logical that Alibaba has an ambition to be present with Alipay in twenty European coun-

tries from the current six countries by the end of 2018 (Quartz, 2018). Figure 3 shows how much Chinese tourists rely on mobile payments in comparison to non-Chinese tourists. Enabling Alipay payment services is therefore one of the most relevant aspects to become a popular traveling destination among the Chinese with a great spending power.

Figure 3. Frequency of payment methods used by tourists abroad



Source: Nielsen, 2017.

Conclusion

Alibaba is a company that has adapted to the market factors, which enabled their rapid growth in the Chinese market, with clear tendencies to expand globally. One can learn a great deal from their business and marketing strategy, expanding through technology (online channels and social media). Taking advantage of the data collected on each consumer, their past purchases and online shopping behavior, Alibaba's strategy can be personalized and customers treated as individuals. The company is indisputably dictating trends in technology and online shopping that need to be considered.

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IV.

CHANGING BUSINESS MODELS

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THE CURRENT STATE OF E-COMMERCE IN THE CONSTRUCTION INDUSTRY AND IMPLICATIONS FOR JUB

Introduction

JUB is a leading manufacturer of interior paints and facades in the South-Eastern European region and is present in 30 markets in Europe. The goal of this chapter is to present the current trends of e-commerce trends in the industry and how JUB could fully embrace e-commerce as a distribution channel for construction products sales in any of their target markets. The chapter addresses the question of whether or not the company should direct its efforts towards establishing e-commerce as its prevalent business model in the long run. The deliberations are based on the analysis of sector trends and benchmarking with selected direct competitors.

1 JUB Company overview

The roots of JUB Slovenia can be traced back to the year 1875. This makes JUB one of the oldest Slovenian companies, with more than 140 years of presence in the production of paints and complementary accessories. One-quarter of sale is created in the Slovenian market, followed by the Croatian, BiH, Serbian, Hungarian and Czech markets, where JUB creates approximately 60 percent of its revenue (JUB Annual Report, 2017). In 2017, the company reached 106.3 million EUR in sales revenues through its twelve subsidiaries and two manufacturing

facilities (JUB Annual Report 2017). One of these facilities is in Slovenia, where the products are produced and distributed to the Slovenian, Croatian, Central European and UK markets. The other manufacturing facility is located in Serbia, covering the majority of the South-Eastern European markets and Russia. The company, which exports 75 percent of its product line, is known for its variety of complementary brands that represent the solutions "from the floor to the roof" (JUB Annual Report, 2017). It provides a wide range and holistic offer of products for the construction (from isolation to decorative internal painting) under eight brand families, including *Jupol*, *Jumix*, *Decor*, *Akrinol*, *Jubizol*, *Jubin, Hydrasol* and *JubHome*. In 2019, JUPOL Classic, the company's most customer-awarded paint product in the region will celebrate its 50th anniversary (JUB, 2018a). The company experienced multiple changes in its ownership structure in the period before 1945, when it became publicly owned. Another crucial year in the company's history was 1990 when JUB suffered a loss of a huge market share in the former Yugoslav republics. In order to survive, important and risky decisions had to be made. The company refocused the sales and expansion of the Central European markets and started the privatization process (JUB, 2018b). Today, the majority (87.7 percent) shareholder of JUB d.o.o. Slovenia is DP JUB, which is privately owned by 54 shareholders, of which the first five hold 24.62 percent share (Bisnode, 2018).

Like other producers of construction products, JUB has its own website. However, the website serves as the information platform only because JUB completely relies on retailers for sales (its current distribution channels are resellers or distributors and one Design Studio located next to the company's headquarters).

Even though the company understands the need for e-commerce, the management still has not taken a major step towards establishing it as a distribution channel in order not to disturb the company's relationships with retailers.

2 Sector overview

According to the NACE classification, the sector called ***Finishing works in construction*** includes plastering, joinery installation, fitting or laying of the floor and wall coverings, interior and exterior painting and glazing. NACE code 43.34 applies painting and glazing as synonyms for anti-corrosive coatings application works, building (exterior) painting, decorating, civil engineering structure painting and protective coating application work.

Finishing works in construction, along with Construction products sales, were profoundly impacted by the global financial and economic crises at the turn of the decade. However, in 2017, the paint and coatings industry reached 137.163 billion EUR worldwide and is expected to reach the value of 179.070 billion EUR in 2022 (Statista, 2018).

In the paint and coatings industry, Asia is the fastest growing market by accounting 52 percent of the volume and 45 percent of the global market. Rising population, increase in middle class consumers, enormous infrastructure developments as well as widespread urbanization have been increasing the demand for paints and coatings for buildings, public infrastructures, automobiles and personal living spaces. In 2017, the Asian coatings industry was estimated to grow by 5.7 percent in volume and 6.3 percent in value. As expected, the leading market in Asia is China, with 56 percent of the whole market, followed by India and Japan (KPMG, 2018).

Market growth in the US, Western Europe, and Japan will remain steady but at a slower pace, tandem the overall health of the regional economy. The overall demand until 2021 is expected to increase by around three percent annually in the US and two percent in Western Europe (KPMG, 2018).

3 Competitor characteristics

Given that JUB's main market is the European Union, the companies from the Finishing works in construction / Construction products sales industry which were chosen for comparison are predominantly European (Table 1). Among them JUB is the oldest but the smallest in size, having a market share in interior paints *(JUPOL)* in Slovenia over 70 percent, while in foreign markets the market share is between 5 and 30 percent (Finance, 2016).

The key market for all of the benchmarked companies for JUB is the European one, but some are also very active in Asia (for example DAW and AkzoNobel) or USA (Behr). JUB has both local (Helios Colours, Baumit and Bekament) as well as global competitors (DAW with Caparol, AkzoNobel with Dulux and Behr). All of them have many different categories in their assortment, focusing both on professionals and DIY segments, and indirectly (via building contractors) participating in public procurement operations.

Table 1. Basic Company Facts

Company	Origin	Year of Establishment	Present Ownership Structure	Company Size (Estimated Nr. of Employees)	Revenue (in Million EUR)	Net Income (in Million EUR)
DAW	Germany	1885	Family owned	5,743	1,309 (2016)	31 (2016)
Helios Group	Slovenia	1924	Kansai Paint Co., Ltd. Acquired Helios Group	780	205	12
AkzoNobel	Netherlands	1994	Privately owned	36,200	10,005	904
Baumit	Austria	1911	Family owned	300	188	14
Behr	USA	1948	Privately owned	2,000	529	N/A
Bekament	Serbia	1992	Family owned	350	35	4
JUB	Slovenia	1875	Privately owned	761	106,3	8,627*

Notes: Data from 2017, unless noted differently; * a half of JUB's total net income for the year 2017 is conducted on behalf of a successful sale of the investment (share) in the Mitol company, a Slovenian adhesive manufacturer (JUB Annual Report, 2017).

Sources: Amadeus Database, 2018; Hoovers, 2018; DAW, 2018; Helios Group (HG trade), 2018; AkzoNobel, 2018; Baumit, 2018; Behr, 2018; Bekament, 2018; JUB, 2018.

Table 2 summarizes the information on key markets and key categories of benchmarked companies, along with their production and sales focus.

The predominant production and sales focus in the analysed sector are on multiple categories, wholesaling and warehousing. Drop shipping is not present, while the private labelling and manufacturing are used by Helios Group (HG trade), and JUB uses the same tactics as the competitors (Helios Group, 2018 and JUB, 2018).

Most of JUB's direct competitors from the *Finishing works in construction / Construction products sales* have a vast variety of brands. Only a few of them have just one brand embedding their company name (examples include Baumit, Behr and Bekament). JUB seems to take the middle path by opting for different paint categories gathered into JUB brands.

As far as the Slovenian market is concerned, based on its good reputation and tradition, JUB is the Slovenian leader in the interior/exterior and facade paints (Finance, 2016) while Helios Group is the leader in coating. Helios Group

Table 2. Key markets, categories, brands, and focus

Company	Key Markets	Key Categories	Key Brands	Production and Sales Focus
DAW	47 markets (Europe, East and South Asia)	Paints, enamels, glazes, chemical products and materials for facade, thermal insulation systems	Caparol, Alligator, Alpina, InThermo, Krautol, Lithodecor,Disbon,	Multiple categories, wholesaling and warehousing
Helios Group	18 markets (Europe)	Paint, coating, paint equipment, varnish, building materials, wood protection materials	Helios Decorative, Belinka, Mavrica (M private label),Color, Miks, Chronos, Zvezda	Multiple categories, wholesaling and warehousing, private labelling and manufacturing
AkzoNobel	14 markets (Europe, South & East Asia, Brazil)	Antifouling, coil, concrete repair, corrosion protection, paints, lacquers, lining, packaging, powder, tank lining, temperature resistant	Dulux, International, Interpon, Sikkens, Chemcraft, KNZ	Multiple categories, wholesaling and warehousing
Baumit	37 markets (Europe & China)	Coatings, exterior insulation and renders, renovation system, healthy living, interior plasters, tiling, floors, mortars, concretes, garden	Baumit	Multiple categories, wholesaling and warehousing
Behr	5 markets (North & Latin America, China)	Interior and exterior paint, primers, wood stains, finishes, strippers cleaners, floor coatings, sealers and prep, specialty paint	Behr, Behr Premium, Marquee, Premium Plus Ultra, Premium Plus, Behr Pro, Kliz	Multiple categories, wholesaling and warehousing
Bekament	9 markets (Southeast Europe)	Bases and impregnation, internal colours and mortars, decorative materials, facade colours and plasters, glues, EPS, the system for assembling, ceramics, flattening mass, mechanical mortars, hydro insulation materials, silicone, foam, wood and metal coating	Bekament	Multiple categories, wholesaling and warehousing
JUB	30 markets (Central &Southeast Europe and UK)	Paint and decoration for interior, external wall insulation, energy saving solutions, decorative protection for wood and metal, waterproofing and ceramic tiling, protection for concrete surfaces	Jupol, Jumix, Decor, Akrinol, JUBizol, JUBin, Hydrasol, JUBHome	Multiple categories, wholesaling and warehousing

Sources: Amadeus Database, 2018; Hoovers, 2018; DAW, 2018; Helios Group (HG trade), 2018; AkzoNobel, 2018; Baumit, 2018; Behr, 2018; Bekament, 2018; JUB, 2018.

(HG trade) is following up with the same types of products but is stronger in wood, metal (Belinka) and car refinish coatings (Kansai) (Helios Group, 2018).

4 E-commerce in the industry

4.1 E-commerce types and trends in the industry

In the wake of the recovery after the last financial and economic crisis, the players in the sector started to accelerate their e-commerce activities to increase sales. However, the digitalization of the industry of *Finishing works in construction / Sales of construction products* is more difficult in comparison to other industries for several reasons: the sector is (a) fragmented, (b) sensitive to economic change, (c) capital-intensive, (d) location and weather dependent, and (e) involves a complex long-term procurement process (Mokhtariani et al., 2017). Although the process is slow, this conservative and technologically challenged industry does its best to adapt to the digitalization. Most of the major players in the industry now support online sales and have established their presence in e-commerce sites such as Amazon.com, eBay.com globally or mavrica.si, trgovina.kalcer.si, mtehnika.mercator.si or Bauhaus.hr in South-Eastern European region.

With the empowerment of consumers, companies have to fulfil consumers' demand whenever, wherever and however they want. According to PWC's Seventh Annual Global Survey in 2018, there are four main e-commerce trends that enrich the entire B2C consumer experience and are also related with the finishing works in the construction or paint and coatings industries:

1. ***Use of smartphones as a shopping gateway.*** The paint and coatings industry is different in nature of use of e-commerce through smartphones compared to other industries. Consumers indeed use smartphones as a gateway, however, mostly not for buying products but for consulting and price search as the products require to be seen in person.
2. ***Consumer migration to social media.*** Young DIY consumers have been moving to social media and searching for ideas on decoration schemes especially on Pinterest, forcing the industry players to establish an online presence and use social media marketing.
3. ***Webrooming behaviour*** (research online, purchase offline). After searching for ideas on social media, customers still seem to prefer the visit to traditional brick-and-mortar shops for buying paints and trying to find products for apartment decoration. The consumers want to interact with the products as these products are customized and therefore not eligible to return.
4. ***Trust and loyalty towards online mega-players*** (such as Amazon, Alibaba and JD). It seems confirmed that these giant online retailers have not only

revolutionized their own industry but have also been actively reshaping consumer behaviours with triggers, routines and rewards (Maxwell et al., 2018).

4.2 Distribution channel versus business model

All of JUB's direct competitors from the *Finishing works in construction / Construction products sales* have already fully embraced e-commerce as a distribution channel in their target markets, as shown in Table 3. However, it seems rather critical that both Slovenian players Helios and JUB are not co-operating with any of the giant global online retailers, such as Amazon.com and eBay.

Table 3. State of e-commerce in the industry

Company	Use of e-commerce as a distribution channel	Currently identifiable elements of e-commerce as a business model
DAW	Online shop (except paint) Amazon, eBay	**Online shop (caparol-shop.de)** and **an app** called **Caparol** that offers a product scanner, shop finder, newsletter, and a product finder.
Helios Group	Mavrica online shop	Manufacturer's own online shop named after the company's paint brand **Mavrica**. Divided offer for B2B **(b2b.hgtrade.si)** and B2C customers **(mavrica.si)**.
AkzoNobel	Dulux online shop Amazon, eBay, Alibaba, Kupibarve	AkzoNobel has developed an **augmented reality (AR) app**: **Dulux Visualizer t**hat allows consumers to dynamically re-colour walls using their mobile device.
Baumit	Amazon, eBay	A **tool** called **Baumit Colour** and **an app** called **Baumit** to faster and easier find colours. Also, a visitor can see the list of products the company offers. Multiple language options.
Behr	Home Depot, Amazon, eBay	The company has developed **an app** called **Colour Smart** which colour matches colours of photos and fabrics with Behr colours. There is also a consumption calculator available.
Bekament	Online shop (only in Serbia) Ara-barve, Kupibarve	Consumers can find all the products listed on their website and then decide whether they want to buy anything in the store or not.
JUB	Indirectly through Mavrica online shop (delivery fee €4.80), Ara-barve (delivery fee €8.01), M Tehnika, Merkur (free delivery above €180)	**An app** called **JUB Home Painter** enables business and end customers to try JUB colours on an object or space that they wish to redo. It also provides a consumption calculator. Another **app** is **Profi Club** which is a credit rating program that runs through a mobile app. It has been designed for B2B customers to use "the more you buy, the more you save" method.

Sources: Amadeus Database, 2018; Hoovers, 2018; DAW, 2018; Helios Group (HG trade), 2018; AkzoNobel, 2018; Baumit, 2018; Behr, 2018; Bekament, 2018; JUB, 2018.

Observing e-commerce as a business model, it can be stated that JUB has already made a step forward in gradually implementing e-commerce into its business model in a form of mobile apps JUB *Home Painter* and JUB *Profi*

Club. These apps are a good example of what digitalisation really offers – transparency, convenience, instant consumption calculation and updates in terms of news and recommendations. However, it will take more than just apps to implement a fully operational e-commerce business model in an industry where issues such as scaling, efficiency, quality, and warranty play an important role, not to mention the fact that core business customers currently cannot be labelled digital natives. It will take a change of generations to see that transition accomplished.

5 Discussion and recommendations

If current business customers to a large extent still cannot be labelled digital natives, the recent research shows that digital natives or millennials are less skilled for DIY than their parents (Lilleston, 2018) and that they start to DIY later than their parents (Armstrong, 2017), due to high prices of homes and rentals, whichmakes them leave parental homes older than their parents were. But when millennials are asked if they feel like they would DIY, 70 percent are positive about their DIY skills (Gorey, 2018), while less than half would hire a professional. Also, 23 percent say that they would hire a tradesperson each time they need a DIY skill (Armstrong, 2017), so this segment suggests a growth potential as millennials will grow older.

The good news for JUB is increasing preference for professional contractors and technological advancements increasing consolidation of market players (NBC29, 2018). This is characterizing the global paint and coatings industry, in which architectural paints and coatings should by 2024 hold a market share of 38 percent (Inkwood Research, 2017), with the annual growth rate of around five percent (Coatings world, 2017). Hence, as JUB operates in the decorative and architectural sector, this growth trends should have a positive influence on its performance.

Based on all these facts, it is observed that it is necessary for JUB to go fully digital sooner than later. In order to cater to the needs of both B2B and B2C customers, while taking into account digital (il)literacy of some and (lack of) DIY skills of the others (all this in a saturated market dominated by large players), it is suggested JUB goes for an omni-channel shopping experience. It is believed that parallel development of offline and online channels, which means combining the best of the traditional and e-commerce business models, is the most prudent option.

During the process, the company should be able to account for cultural and generational differences, as well as to optimize the use of its existing offline and online resources (for example by promoting the increased use of its apps, developing additional functionality of its apps, adjusting its country websites to country and culture specifics instead of simply translating the Slovenian contents, etc.), thereby taking care of the undisrupted customer's journey for all, while establishing itself as a household name for every generation.

Not only the existing platform but also the global e-commerce platforms such as Amazon and eBay should be used by JUB because being absent from them (unlike the benchmarked companies) affects the company's e-commerce sales. As these platforms reach a wide range of consumers and have power to shape the customer's journey, being present on mega e-commerce platforms will boost the online sales and increase brand awareness outside of Ex-Yugoslavian markets. Observing JUB's e-commerce activities, it is seen that even though the company does have several online functions, these are not promoted well. Therefore, another suggestion is a better promotion of the already existing free samples of different shades of paints through the app for customers to test the shade, light and the overall compatibility with their chosen redecorating space in a form of a mini-roller to cover approximately 0.5 x 0.5 metres of wall.

By having an online profile that enables access to the JUB's online shop, both customers and the company benefit. Customer's benefits are in price and offer adaptation, which is set based on the previous customer's behaviour and purchases, while the company has a better overview of the customer's decision journey and can appropriately and efficiently react at every point of the journey.

Also, it is important to highlight that JUB is one of the providers of sophisticated decorative techniques (JUB Decor) in the region. By offering specialized paints, materials and tools to accomplish the imitation of materials such as marble, brick wall, leather surface, natural stone, or bark of wood, JUB (jub.si) makes the product line ideal to start their own e-commerce path, because in this way the already established business relationships with retailers would not be endangered or cannibalised.

Conclusion

In this chapter, the trends of the Finishing works in construction sector, consumer behaviour while buying paints and necessary equipment along with

benchmark companies are analysed in order to determine JUB's progress in e-commerce. Compared to its competitors, the company does not promote its already existing e-commerce applications such as JUB *Home Painter* and *Profi Club* well and it is also not present on the most known and biggest e-commerce platforms like Amazon and eBay, which makes it harder for JUB to reach potential customers internationally.

Although the industry is slower in the digitalization process, companies are trying to keep up with the changes, as presented in this chapter. Therefore, for JUB it is also the best to follow the trends of the industry by promoting the existing e-commerce functions more efficiently and using global e-commerce platforms in the short run as well as going fully digital in the long run.

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E-COMMERCE: A BUSINESS OPPORTUNITY FOR PETROL

Introduction

Petrol d.d. is the biggest and one of the most well-known companies in Slovenia, the key supplier of oil and gas in the economy. This industry has not changed much over time, but it is expected to face significant changes in the next decades, and many companies are searching for ways to diversify. Consequently, Petrol is considering to expand its retail business online with an e-marketplace platform.

The purpose of this chapter is to identify new business opportunities in the e-commerce environment and provide recommendations to Petrol for establishing and running an e-marketplace. Petrol possesses a highly developed distribution network and logistic infrastructure, which makes it possible to pursue Amazon's business model (offer both the e-marketplace platform and logistic services to its partners). In order to succeed at its new venture, it has to satisfy a range of elements that are crucial for attracting both sellers and buyers to the platform.

The chapter is organized as follows. First, Petrol is briefly presented. A special focus is put on the company's current state of e-commerce and its future orientation. Next, the consumer behavior in Slovenia is discussed, followed by e-commerce benchmarks from traditional industries. Later on, recommendations for Petrol's e-commerce business are provided, as well as the company's opportunities in the Western Balkan markets are debated. The chapter concludes with a discussion and implementation strategy.

1 About Petrol

Petrol d.d. was founded in Ljubljana, Slovenia, in 1947. Its business activities include oil sale, liquefied and natural gas sale, electricity sale, merchandise sale (both brick-and-mortar and online sales), natural gas distribution, district heating, environmental solutions, energy solutions and electricity generation. For 2017, Petrol reported €4.49 billion of revenue and a net profit of €81.1 million (Petrol, 2017a). In the same year, it employed 4,508 people. It is present in 10 countries; Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, Kosovo, and to a smaller extent in the Czech Republic, Austria, Macedonia and Romania. Petrol runs 495 gas stations across the mentioned countries. A more detailed market position of Petrol is shown in Table 1.

Table 1. Petrol's market position across the countries where it has a stronger presence

Country	Number of gas stations	Market share in terms of the number of gas stations	Share of Petrol's total revenue
Slovenia	317	57 %	78.3 %
Croatia	106	12 %	13.9 %
Bosnia and Herzegovina	38	3 %	4.9 %
Serbia	12	1 %	1.7 %
Montenegro	11	10 %	1 %
Kosovo	11	1 %	0.3 %

Source: Petrol, 2017a.

2.1 Current state of e-commerce in Petrol

As the biggest oil and gas company in Slovenia (and one of the biggest in South Eastern Europe), Petrol is considering ways to leverage its huge customer base across different business sectors. It is also seeking to diversify its business, as the oil and gas industry is expecting significant changes in the next decades. One of the areas where Petrol plans to expand is the e-commerce sector (Petrol Digitization Department, 2018). Already since 2014, Petrol has been running an online shop with a very broad assortment, including auto-moto items, energy solutions, electronics, home and garden items, books, food, cosmetics, etc. Even though Petrol offers a variety of items, the focus is on auto-moto and energy solutions segments, the ones for which Petrol is widely recognized.

Currently, Petrol's e-shop is available only in the Slovene language. Petrol uses its two big warehouses in Ljubljana for receiving and shipping items, which is enough to satisfy all of its operational requirements. Its highly developed distribution network allows for free shipping off all items to any of its gas stations in Slovenia. It offers free home delivery for purchases above 300 euros using third party logistic providers, while charging around 4.5 euros for purchases below that threshold (Petrol eShop, 2018). At this moment, 80 percent of Petrol's e-shop customers are choosing gas stations as delivery locations (Petrol Digitization Department, 2018).

The biggest e-commerce platforms in Slovenia that offer a broad assortment of items are *Mimovrste, Nakupovanje, Bing Bang and EnaA* (Export.gov, 2017). Mimovrste is the one with the highest revenue, around 44 million euros in 2017 (MojeDelo, 2018). It strives towards achieving a high customer satisfaction by offering a relaxed and easy-to-use web store. In 2016, the company already had more than 700,000 registered users. It offers more than 90,000 products in their assortment, across all categories. Beyond the big players, a big share of small, specialized stores is also offering products through online channels. The annual growth of online sales in Slovenia was around 35 percent in 2016 (Dujič, 2016). Table 2 shows a detailed comparison of Petrol's e-shop to the biggest e-commerce player in Slovenia, Mimovrste.

Table 2. Comparison of Petrol's e-shop to Mimovrste

	Petrol	Mimovrste
Main product groups	• Auto-Moto • Energy solutions • Electronics & Multimedia • Home & Garden	• Home appliances • Electronics & Multimedia • Home & Garden • Health & Personal Care
Total number of items	> 10,000	> 90,000
Delivery	• Pick-up at every Petrol gas station (>300) across the country • Home delivery	• Pick-up at only 7 different locations • Home delivery
Delivery costs	• Free at more than 300 gas stations • 4.5 euros for home delivery • Above 300 euros of purchase – free home delivery	• Free at 7 pick-up locations • 3.95 euros for home delivery of small packages, 5.95 euros for big packages • Above 39 euros of small item purchase - free home delivery • Above 199 euros of big item purchase - free home delivery
Platform	Older, needs redesigning	New, consistently updated

Sources: Petrol eShop, 2018; Mimovrste, 2018; MojeDelo, 2018; Petrol Digitization Department, 2018.

2.2 E-commerce as a future strategic orientation

Petrol wants to go beyond a pure online shop and it is already in the process of establishing an e-marketplace similar to Amazon. The main goal is to attract many small businesses in the country, which otherwise would not have access to a proper sales channel (Petrol Digitization Department, 2018). Petrol will retain focus on auto-moto products and energy solutions but will not put any restriction to the potential suppliers/partners, in terms of the product type offering. The company sees Slovenia as the market of highest preference for the e-commerce platform, with potential expansion to Croatia (EU territory) and other Ex-Yugoslavian countries later on.

According to the corporate documents (Petrol, 2017b) and the taken interviews (Petrol Digitization Department, 2018), Petrol's e-marketplace is a strategic incentive with a very high priority. The project of establishing the platform and the supporting systems is divided into two phases. In the first phase, the plan is to build a technologically new e-commerce platform that would overcome the limitations of the existing solution. One of the biggest novelties of the new platform will be the possibility for any business to come and sell at Petrol's e-marketplace. In the second phase, the plan is to set-up new systems and processes that will enable Petrol to attract new sellers and buyers to the platform. Ultimately, Petrol wants to become the leader in the e-commerce sector in Slovenia. Understanding the customers and how they will use the digital platform is the key to success (Baden-Fuller, 2013). Innovative and personalized shopping experience can lead to a sustainable and growing profit area for Petrol if the company is able to satisfy the so-called "digital customers".

A big opportunity for Petrol to increase traffic of the e-commerce platform is its huge customer base in the oil and gas sales sector. Rewarding the buyers of oil and gas with discounts in the e-marketplace is a great chance to attract buyers to the platform. This presents a significant competitive advantage over its rivals. Petrol also has a great stand in terms of the number of pickup stations. It offers free delivery to more than 300 of its gas stations across Slovenia, which is unparalleled by any other e-commerce player (for example, Mimovrste offers only 7 pickup stations).

In terms of branding, the management sees the Petrol brand name as a strong asset for the future e-marketplace and plans to keep the new business completely integrated with the group.

3 Consumer behavior in Slovenia

Petrol has to take a variety of actions in order to establish and successfully run the platform. It has to tackle issues of platform design, attracting sellers, attracting buyers, and in the end satisfying the buyers across a wide range of factors.

The information about consumer behavior over e-commerce platforms in Slovenia is obtained from the *E-commerce Report Slovenia,* made in 2017 by Ceneje.si and Valiant. The report is based on a survey across 3,660 respondents, controlled for gender, age, employment, education, income, region, etc. The report states that 91 percent of people consider *offering* as an important factor. The same percentage of people gives importance to the *buying experience*. *User experience* is important to 55 percent of the people and the *added value* to 35 percent.

In terms of *offering*, people find the *best price* as the most important factor (63 percent), followed by the *delivery price* (52 percent) and the *assortment* (30 percent). Regarding the buying experience, *ways of payment* is an important factor to 52 percent of the surveyed people, *delivery time* to 34 percent, and *delivery and takeover options* to 32 percent. In the *user experience* set of factors, *product description* is important to 32 percent of the people, while 28 percent consider *clarity of the e-commerce offer/layout* as important. For the *added value*, 23 percent of people find *comments & reviews* to be important (Ceneje.si and Valiant, 2017).

4 Benchmarks from traditional industries

4.1 Examples of diversification in the oil and gas sector

The majority of big oil and gas companies like ExxonMobil, Royal Dutch Shell, BP (British Petroleum) and Total SA, still predominately operate in the traditional way. Nevertheless, besides selling only oil and gas, those international companies also have their own chemical subsidiaries through which they manufacture and sell chemical products. Recently, many of them have started diversifying their portfolio by moving much further from the fossil fuels. They are investing heavily in the development of clean and renewable energy, such as solar, hydro and wind. For example, BP invested $200 million to acquire 43 percent of the Lightsource, the largest European company which deals with

development and long-term management of large scale solar projects (BP, 2017). On the other hand, Total S.A. spent $1.6 billion on the Direct Energie, an electric and gas utility company (Brewer, 2018).

When observing the regional players in the oil and gas industry and their ways of diversification, there is a variety of approaches. MOL Group (Hungary) aims to diversify away from fuels by growing petrochemicals exposure. At the same time it plans to transform its retail business into consumer services, such as self-driving cars, alternative fuels, car sharing and electrification of transport (MOL, 2016). For OMV, petrochemicals and the development of sustainable electric mobility will be one of the major focuses in the future (OMV, 2018a, 2018b). The Eni company will invest significant funds into renewable energy (solar, wind and biofuel), which offers a big potential for both technological and market growth (Eni, 2018).

Except for the B2B sales systems, none of the oil and gas companies have started nor had plans to start an e-marketplace platform. Therefore, it is hard to compare Petrol directly to any of these companies regarding its new venture.

4.2 Benchmarks for expansion to online from traditional retailers

In the industries with fragmented suppliers, online platforms ease the process of connecting suppliers with the targeted customers. Good examples are companies like Airbnb, Booking.com, Uber, Alibaba and Amazon. Each one of these companies completely disrupted the traditional industry with novelty online business models.

In the retail sector, e-commerce platforms have been rapidly growing in comparison to brick-and-mortar stores. However, the e-commerce sector is characterized by low profit margins and long periods required to achieve profitability (Forbes, 2017). Starting an e-commerce platform and offering a broad assortment on a big scale demands funding over a long period of time. This is something that many companies cannot afford. Looking at it from this aspect, Petrol is probably best situated among its e-commerce competitors, as it possesses a very strong financial background from its core business.

Table 3: Comparison of business expansion to online by Wal-Mart and Zara

Walmart	Zara
WHY	
To compete with Amazon.	To catch other online fashion players like ASOS, Amazon and Boohoo (Govender, 2018).
WHEN	
Walmart started e-commerce by acquiring Jet.com in 2016, and other online retailers, such as Bonobos, Modcloth, Moosejaw, Shoe Buy (Hanbury, 2017).	Zara started online business in 2010 and it was selling online in only six markets at that time (Spain, the UK, Portugal, Italy, Germany and France) (Mulligan, 2010).
TARGET	
Younger shoppers (millennials) and higher-income shoppers (Thomas, 2018).	Younger shoppers (millennials) and Zara loyalty customers (Pratap, 2017).
HOW	
• It maintains the independence of acquired companies to attract higher-income shoppers that otherwise would not shop at Walmart (Thomas, 2018). • Walmart has completely revamped its website focusing on fashion and home goods, and brought high-end clothing items to its website (Thomas, 2018). • It has innovated in supply chain to shorten delivery service (Moloney, 2017). • Store pickup. Online shoppers can choose to ship to their local stores and enjoy a discount. • In the future, Walmart will use "smart cart" technology where shoppers can get cheaper prices if they pack more items together in one box (Thomas, 2018).	• It provides both website platform and mobile application. • It provides great product selection, lots of pictures, and an exceptional size guide. Besides, customers can try on the goods in Zara pop-up stores and buy online (Battrick, 2017). • Customers can choose between picking up in store or at-home delivery (Zara, 2018). • Good payment system. Customers can use all the standard e-commerce payment methods, such as PayPal, and all major credit cards (Zara, 2018). • Easy return. Customers can return to their most convenient store in 30 days (Zara, 2018). • In the future, Zara will integrate online and offline shopping. If an item is out of stock online but available in a nearby brick-and-mortar store, customers can order it and it will be shipped from there (Neumann, 2018).
PERFORMANCE	
• In 2017, Walmart's e-commerce revenue accounted for around 3% of Walmart's total revenue (Team, 2017) and it is estimated to increase by 40 percent in this year (Wahba, 2018). • Walmart became the third largest online marketplace in the U.S. (Moloney, 2017).	• Now Zara is expanding its e-commerce into 20 markets (Howland, 2018) and the e-commerce revenue increased by 41 percent in the latest fiscal year that boosted Zara owner Inditex. • It attracts more that 10 million visitors visit the websites in one day (Mulier, 2018).

Besides the companies that initially started as online companies, there are cases of traditional retailers that undertook the expansion to online quite successfully. Walmart and Zara are good examples of adding an additional sales channel by expanding their businesses online. Both of them have a lot of brick-and-mortar stores and they are trying to integrate online and offline businesses. Even though Zara and Walmart are not running an e-marketplace, Petrol can still learn from them, as it is also trying not to transform its core business but to ex-

pand online only.. Table 3 describes the online expansion of Walmart and Zara, the biggest retailer and the biggest clothing company in the world, respectively.

5 Recommendations for Petrol's e-commerce business

5.1 First phase recommendations – platform changes

Petrol is in a process of redesigning its e-shop platform. In order to find negative aspects of user experience in the current platform, twelve thematic interviews with (potential) users were conducted. In all of them, the users were lead through the full process from registration to the final step of buying the product. The age range of the interviewees was from twenty-two to fifty-one. All participants were familiar with e-shops and have already bought products from different online stores in the past. Based on these interviews and consumer behavior characteristics in Slovenia, several recommendations for Petrol's e-commerce business have been derived.

The thematic interviews with the users have revealed that some sections of the current eShop design work quite well, but there are also sections that are bothering the users. In the registration section, it was noticed that the option to register as a *New User* is not clearly visible. The suggestion here is to put it more towards the top of the page, as the first option, and allow for the password to be longer than eight characters without prohibiting special characters. Other steps in the registration process went smoothly.

When analyzing the appearance of Petrol eShop, the overall look of the webpage is too narrow. The navigation buttons are very small and therefore difficult to use. Regarding the products, it is desirable to give more pictures for each of the products. Another useful add-on would be the *reviews and comments* option, as it is an important factor that users look up to when buying online. When checking for availability, the percentage of *in stock* products was very low for various sections (around 50 percent or even lower), which negatively impacts the trustworthiness of the platform. In the last section of the process, which is about the delivery and payment options, a few problems were recognized. There is a big inconsistency in delivery time for different items as well as for different gas stations as destinations. Lowering this variability is important for customer satisfaction. The final payment and purchase confirmation steps went smoothly.

5.2 Second phase recommendations

5.2.1 Attracting sellers and buyers

In order to attract small businesses to the future platform, it is important to follow the Amazon approach, by first attracting the big, reputable companies. That would make the platform renown, which would increase trust. Even though Petrol already has many suppliers, it would be good to revise the list and approach some other big companies in the country/region.

Based on the Global Search Marketing Report (SimilarWeb, 2016), 40 percent of the worldwide e-commerce traffic comes from search engines, followed by 36 percent from the direct search. Referrals account for 19 percent, social media 4 percent, display ads 1 percent and email below 1 percent of the traffic. Therefore, Petrol should invest into search engine optimization (SEO) and paid advertisements on search platforms (SEM) to attract users to its platform. Beyond search engines, Petrol could also incentivize referral activity by providing rewards to the current users who attract new buyers (Schmitt et al., 2010).

5.2.2 Satisfying users across the whole purchasing process

As already specified in Section 3, Slovene consumers base their decisions to buy online on price, assortment, payment method, delivery cost, delivery time and return policy.

In terms of the ***pricing***, Petrol has to assure competitive prices on its platform. This should be done by frequent price comparisons with other stores, for each of the sections. Due to its strong financial background, Petrol could even fight its rivals by offering the lowest prices.

In terms of the ***assortment***, Petrol should increase its size, which is currently slightly greater than 10,000 items. In addition, some sections have a high share of unavailable products, like laptops (56 percent unavailable), cameras (73 percent), or audio-video equipment (36 percent). This is not acceptable for a company that wants to become a leader in this field, and therefore, these values have to be reduced significantly.

Regarding the ***payment methods,*** Petrol does not offer the option of paying in cash when receiving the item at home, which is a thing that could be reconsidered (competitors do offer this option).

Considering the ***delivery price,*** Petrol currently has the highest purchase value threshold for free delivery (€300) and one of the highest delivery prices for smaller purchases (€4.5 in comparison to less than €4 for competitors). These values should be readjusted to closely follow the competition. However, Petrol's competitive advantage here is a huge number of pick-up stations (more than 300).

When talking about the **delivery time** to its stations, Petrol is able to deliver some items quite fast (2-3 days), while others require much more time (6-10 days). Also, the delivery time varies a lot across different gas stations (2-10 days). In order to achieve consistency across products and gas stations, optimization of these processes would definitely improve the buying experience for Petrol customers. Short delivery time together with the already high number of pick-up stations would be an unmatched offering for this aspect of buying experience.

The ***returns policy*** is a factor which is not receiving a big focus from Petrol at the moment. It is the buyer's responsibility to send an item back to Petrol and pay for the return shipping. Petrol could easily design and introduce the process for this issue by training the staff at its gas stations to receive the item which needs to be returned and to take care of further transport.

5.2.3 Take-away points from online expansion of traditional retailers

There are a few things Petrol can learn from both Wal-Mart's and Zara's expansion cases. First, Petrol should make sure who the target customers are and how to target those customers. Second, it has to provide a great user experience for the customers. This includes a fast and user-friendly website for its platform (both standard and mobile version), more pictures and descriptions of products, integration of online and offline businesses and finally, reducing the delivery time. The integration of online and offline businesses corresponds to connecting stock data from both channels, pick-up of the items purchased online in brick-and-mortar stores (which Petrol already does with the gas stations) and a fast and convenient way to return the goods.

6 Opportunities for Petrol in the Western Balkan markets

E-commerce in the Ex-Yugoslavia region has been a growing business trend in the past few years. Looking at the growth of social infrastructure and e-commerce platforms, many local entrepreneurs could hit it big (Techcrunch 2013). Some of the bigger players in the region are eKupi (from Croatia), Mall (from the Czech Republic), and Extreme digital (from Hungary), as well as the big global players, such as Amazon, eBay, and AliExpress.

According to the State of E-commerce Mind Report (Dujič, 2016), 61 percent of merchants in Croatia have supporting e-platforms for conducting their businesses. In Slovenia, the number is slightly higher and it amounts to 71 percent. It has also been reported that online shopping over domestic e-platforms is much more important to Slovenians (47 percent) than to Croatians (22 percent). When talking about Croatia, it is expected that many small retailers will transfer their businesses online (Ecommerce News Europe, 2016). Market analysts say that the state of e-commerce market in Croatia is far from reaching its full potential and forecast the annual growth to be around 10 percent in the upcoming years (Majsan, 2017).

There is certainly a big potential for Petrol in establishing an e-marketplace in Croatia, due to all of the mentioned factors as well as the geo-political reasons (EU territory and vicinity to the company core in Slovenia). Many sellers that would be using Petrol's e-marketplace would gain access to a wider audience and also reduce their costs. In the countries where Petrol has a high number of gas stations (Croatia - 106 and Bosnia and Herzegovina - 38), it would be much easier to set-up the e-marketplace and supporting operations, as the distribution network already exists. A high number of gas stations automatically means a bigger customer base, and consequently, easier attraction of buyers to the e-marketplace platform through a loyalty reward program.

Conclusion

The way of selling products and services is significantly changing all around the globe, especially due to the big technological advances which are enabling these changes. Any company that has been selling products in a conventional way, is being forced to go and sell online as well. Many businesses coming from traditional industries are trying to become relevant in the online domain and are seeking the optimal way to accomplish that goal.

Being the biggest player among other brick-and-mortar stores is not a guarantee for succeeding online in any case. The description of Wal-Mart's transformation process shows how much time and capital investment is required in order to attract users and achieve a continuous growth of an e-commerce platform. Research shows that the biggest share of global e-commerce traffic comes from search engines, followed by direct search and then by the referrals (SimilarWeb, 2016). Every company that is establishing an e-commerce/e-marketplace platform should at first invest into the SEO (search engine optimization) and SEM (search engine marketing) activity, and then move to other marketing channels.

Each e-commerce/e-marketplace consists of many elements that are valued differently by the users. Referring to the Slovenian market, the price of product, price of delivery and payment options are by far the most important factors when buying online. This can be a starting point for every business that is establishing an e-commerce/e-marketplace platform or moving its sales online. The user satisfaction across those three elements should be a priority. The second most important factors are assortment, time of delivery, options for receiving the item, clarity of the layout/offer, product description, and availability of comments/reviews. Here, a company should focus on the elements that are seen as critical for its product segment and its way of doing business, because it is very hard to satisfy the buyers across all the elements (except for huge players such as Amazon). Each company has to tailor the platform and the supporting system to its needs and seek competitive advantage.

The e-commerce environment in Slovenia is already a very dynamic sector with lots of competition. Therefore, the transition to online is not a certain success but a challenging transformation which is a must nowadays. In the other Ex-Yugoslavian countries, the e-commerce environment is less developed, but with notable signs of growth. Markets like Croatia present a high potential and it is likely that some of the e-commerce pioneers there will easily have their investment returned.

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THE ROLE OF E-COMMERCE FOR MICRO, SMALL AND MEDIUM ENTERPRISES

Introduction

Micro, small and medium enterprises (MSMEs) play an important role in the economy as well as the society. MSMEs represent ***99.8 percent of the total enterprise population,*** employ ***66.6 percent of the active workforce*** and create more than ***50 percent of value added*** (Eurostat, 2017). The adoption of e-commerce in MSMEs on average leads to an 18 percent ***increase in sales*** (Eurostat, 2018), a 30 percent ***increase in labour producitvity***, and a 60 to 80 percent ***reduction in costs*** in the first year after the implementation (European Commission, 2016).

This chapter studies the feasibility and effect of e-commerce on MSMEs and provides relevant recommendations for the enterprises in question. It first addresses the external and internal benefits of e-commerce for MSMEs, followed by external and internal challenges. The chapter finishes with the current European policy issues and recommendations for MSMEs in order to overcome the challenges more easily.

1 Benefits and opportunities of using e-commerce in MSMEs

E-commerce is bringing a number of opportunities for companies at large, including MSMEs. In addition to the new horizon of unexplored opportunities, it allows MSMEs to improve their internal strengths and perform better in meeting customers' demands (Table 1).

Table 1. Opportunities and benefits of the use of e-commerce by MSMEs

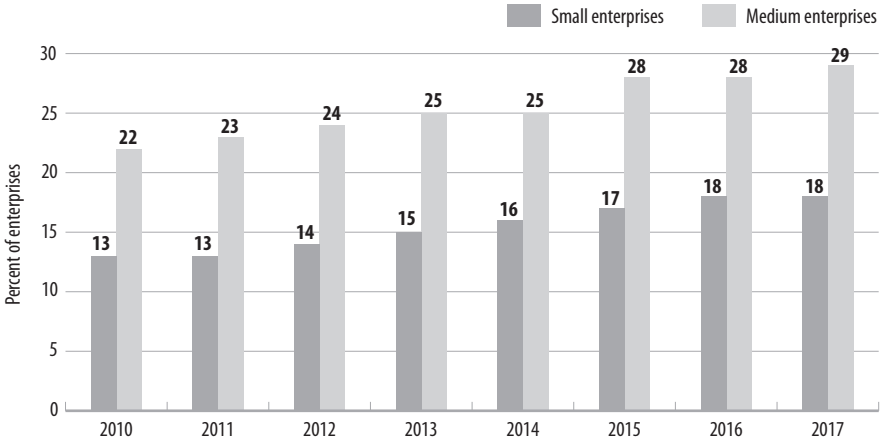
External opportunities	Internal benefits
• Upward trend of e-commerce sales • Access to new and distant markets • Initial investment costs are decreasing • New markets for agricultural and tropical goods • Spill-overs of technology • Improved business environment • Reduction in unnecessary bureaucracy	• Improved competitiveness • High flexibility and adaptability • Short reaction time • Improved customer service • Faster feedback • Enhanced flow of information in the supply chain • Customized and specialized goods and services • Higher sales through personalization • Cost savings • Greater commitment and engagement • Digital partnership with large firms

Source: Summarized from text.

1.1 External opportunities

The percentage of e-commerce sales has been increasing in recent years in MSMEs (Figure 1), showing a rising importance of e-commerce and a shift of businesses online.

Figure 1. Percentage of e-commerce sales in proportion to total sales for small and medium enterprises from 2010-2017 (EU28 countries)



Source: Eurostat, 2018.

How can e-commerce seize its potential in the globalized business environment? There is an opportunity for an easier entrance into B2B and B2G supply chains on a global scale. It also opens ***new markets for agricultural and***

tropical goods which were once offered mainly locally (Savrul et al., 2014). In order to reduce costs and be more competitive, MSMEs need to build on ***spill-overs of technology*** within the industry, as well as share their knowledge across other industries (OECD, 2018). Developments in digitalisation also benefit the governments. They ***improve the business environment*** in terms of quality and the efficiency of governmental institutions. This leads to a ***reduction in bureaucracy***, which will improve the processes and foster the implementation of e-commerce models, impacting MSMEs directly.

1.2 Internal benefits

E-commerce can ***improve competitiveness*** and provide many common benefits for MSMEs. Zesty Bites, a cake producing company from India, increased its business by 25 percent by the end of the first year and extended its customer base reach to seven cities in India as a result of e-commerce adoption (KPMG, 2017) and it is also expanding internationally (Zesty Bites, 2018).

High flexibility and adaptability (OECD, 2000) enable constant access to the company's goods and services and help maintaining instant adaptation to the ongoing changes. In Europe, this contributed to an 18 percent general increase in sales (Eurostat, 2018). An empirical study of Swedish SMEs shows that companies need from 6 to 12 months to implement and get e-commerce ready (Beheshti and Sangari, 2007). Further, the elimination of time and space constraints leads to a ***shorter reaction time*** to shifts in demand (ITC, 2016).

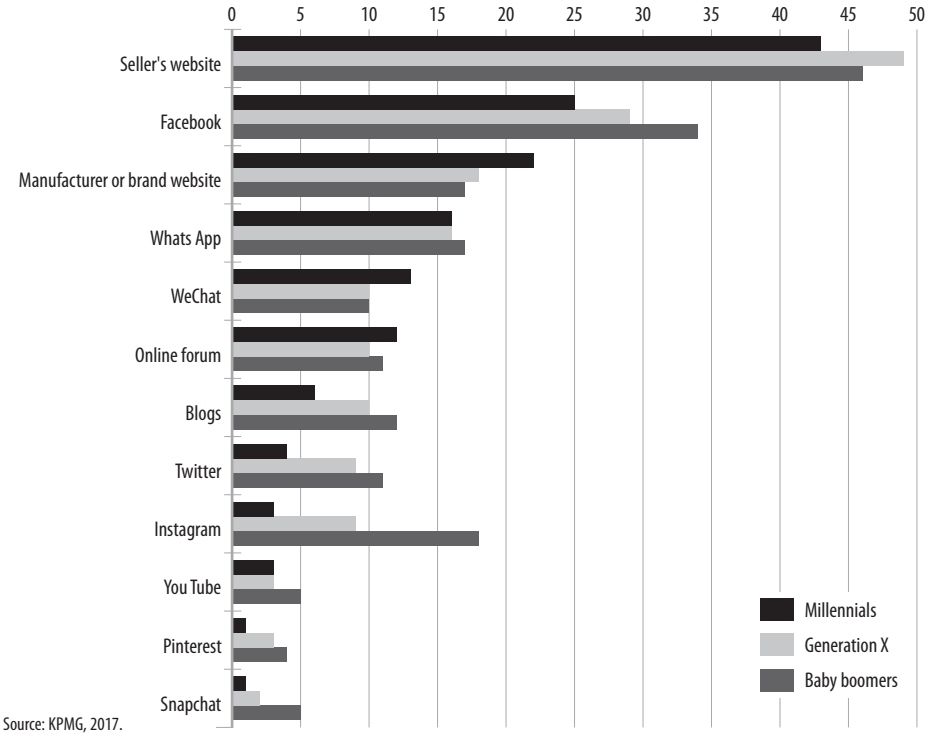
By employing online marketing tools, companies have a chance to improve brand recognition and customer satisfaction. Moreover, e-commerce offers an opportunity to gather ***faster feedback*** from the customers and ***enhance the flow of information in the supply chain*** (McKinsey & Company, 2016). All of that will also improve the ***customer service***.

The Internet acts as a bridge to consumers. MSMEs deal with a ***lack of brand recognition***. Evidence indicates that the benefits of e-commerce are highly dependent on the successful execution of branding strategies and brand management activities (Onojaefe et al., 2005).

Companies that interact with consumers on social media are generating 20 to 40 percent more in sales from those customers (Wertz, 2017). MSMEs should bear in mind that different generations use various tools to share feedback

(Figure 2) and should therefore use different tools to attract different groups. For example, MSMEs targeting Millennials should maintain a strong social media presence. It costs seven times more to bring a new customer in than to retain the existing one. Therefore, companies should improve responsiveness in terms of feedback (Wertz, 2017).

Figure 2. Sites where consumers shared feedback - by generation (in percent)



Source: KPMG, 2017.

The use of e-commerce encourages companies to invent new ways of creating additional value. This results in ***customized and specialized goods and services*** which are a better fit for the emerging needs of the customers (Piller and Walcher, 2017). Over 70 percent of American consumers expect ***personalization*** from online businesses, including having their own account that records past purchases, checkout information, and personalized emails (Wertz, 2017). This could add 6 to 10 percent to the revenues, which is achieved two to three times faster compared to the ones that don't personalize (Abraham et al., 2017).

E-commerce also leads to ***cost savings*** through an increase in innovations and new technologies. In general, companies could reduce costs by 60 to 80 percent.

The marketing costs can be reduced through more cost-effective tools (social media websites, Google analytics, Carthook, etc.) and better optimization systems (logistics, storage, and rental costs). With the implementation of e-commerce, labour productivity can be increased by 30 percent (European Commission, 2016). Moreover, e-commerce requires fewer people for operation and therefore decreases the labour costs (Savrul et al., 2014). The characteristics of MSMEs (fewer employees and informality) create an environment of more engaged employees and a ***greater level of commitment*** in the companies (Savrul et al., 2014).

Apart from the common benefits of MSMEs, there are some other strengths that are specific to micro and small companies. These types of companies have a ***better basis for specialization*** and are therefore more successful in the implementation of niche strategies. This leads to a ***digital partnership with large firms*** (Savrul et al., 2014), where large enterprises use these companies as their branches of specialization or enhancement of their offerings.

2 Challenges of e-commerce adoption for MSMEs

MSMEs encounter a vast array of internal and external challenges in the process of implementing e-commerce (Table 2).

Table 2. Challenge analysis for the use of e-commerce by MSMEs

External Challenges and Threats	Internal Challenges and Weaknesses
• Political, legal, and regulatory challenges • Economic challenges • Social and cultural challenges • Technological challenges	• Limited resources • Losing the focus • Owner's strategic vision impact • Organizational reluctance to change • Lack of proper management support • Expected versus experienced barriers • Nature of goods and services • Business network accessibility • Limited access to information

Source: Summarized from text.

2.1 External challenges

2.1.1 Political, legal, and regulatory challenges

Business environment in general affects e-commerce, regardless of the company's size. Primarily, a ***lack of predictability, properly functioning legal***

and regulatory systems, bureaucracy, and a ***lack of timely regulatory change*** present a problem in both adopting e-commerce as well as maximizing the benefits from it. In addition, e-commerce is especially affected by a ***lack of simple guidelines, common e-commerce standards,*** and ***e-trading legislations*** (WTO, 2012).

For the MSMEs, the ***General Data Protection Regulation*** (GDPR) 2018 poses additional challenges. Ninety-two percent of European MSMEs are not prepared for the GDPR and 51 percent believe the regulations are too complex. Two out of five are convinced that the GDPR will increase their business expenditures, mainly spending on consultants who will help them adjust to the GDPR (EMA and RSM, 2017). Moreover, non-compliance fines are high for all companies and represent four percent of a company's annual turnover or 20 million euros, whichever is higher. Companies are also liable for legal prosecution and compensation of the data subject (European Commission, 2018). This can put a majority of MSMEs out of business.

There has always been a problem with regards to the ***collection of VAT and e-commerce***. In 2017, the EU made some changes in this area which would have a positive effect for MSMEs. However, the regulation is not expected to be fully implemented before 2021. The EU will introduce a yearly VAT threshold of 10,000 euros, which means that all cross-border sales among the countries within the EU that fall under the mentioned threshold, will be treated as domestic sales for all online companies. Currently, the companies which sell to other countries within the EU are obliged to register for VAT in all the countries where their products are being sold to the end customers. This reflects in significant operating costs. By unifying the procedure and moving all companies to a single EU VAT portal, costs will be reduced by up to 95 percent (European Commission, 2017). Even though these changes have been agreed upon, it will still take a lot of coordination among different member states, which can result in various problems and uncertainties for e-commerce businesses.

2.1.2 Economic challenges

MSMEs are much more vulnerable to the ***lack of proper infrastructure*** (financial, technological, and telecommunication). In developing countries, MSMEs comparatively more often face limitations in terms of customers' ability to pay, underdeveloped delivery systems, and a high cost of connectivity (Lawrence and Tar, 2010). This goes hand in hand with the ***lack of secure payment infrastructure***. Successful adoption relies on an environment that facilitates

transactional integrity and has the ability to handle and maintain transactions in accordance with well-defined rules (Kapurubandara and Lawson, 2006).

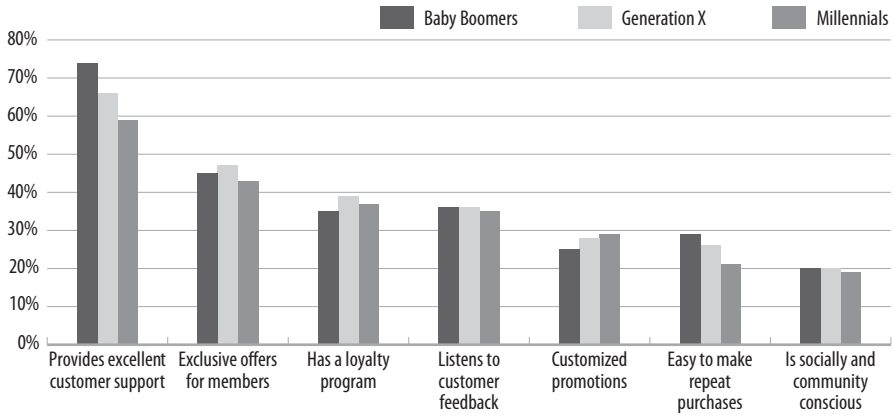
Intense competition may cause a ***reduction in price mark-ups***, limiting the competitiveness of new entrants without economies of scale, but on the other hand, it facilitates investment and growing opportunities for MSMEs. For example, a subsidiary of Walmart uses a competitor-based pricing model and offers significant discounts and price slashes, which leads to prices that are at least 10 to 15 percent below any other prices for that item that could be found online (Campbell, 2017).

2.1.3 Social and cultural challenges

Trust is one of the most important obstacles in e-commerce, besides the design of the website and having well-known brands (Suresh, 2017). Trust seals have a positive impact in creating e-trust and increase the credibility of MSMEs (Li et al, 2014; Hu et al, 2010). For instance, Virtual Sheet Music suffered a drop in sales when their trust seal provider removed the seal. After reinstating the seal they experienced a 31 percent increase in conversions. Similarly, the adding of trust seal resulted in a 137 percent increase of the conversion rate for Clean Energy Experts and a 42 percent increase in sales for Blue Mountain Media (oBundle, 2017).

Trust and confidence are linked with e-commerce ***security issues***. The lack of e-security influences ***customer loyalty***, which is excessively fragile, considering

Figure 3. Top ten attributes that drive customer loyalty — by generation



Source: KPMG, 2017

the number of options to choose among the e-commerce rivals. KPMG (2017) suggests that the top three factors which influence customer loyalty are excellent customer support, exclusive offers and loyalty programs (Figure 3). There are no significant differences in the main factors among different generations.

Loyalty programs help MSMEs increase profits. For instance, Swiss Rasoi is an online niche company that sells Indian spices. They have managed to double their customer lifetime value in less than a year by implementing different loyalty programs (Chau, 2017). Loyalty leads to customer retention. For example, a five percent increase in customer retention leads to an increase in profits between 25 and 95 percent (Reichheld, 2001).

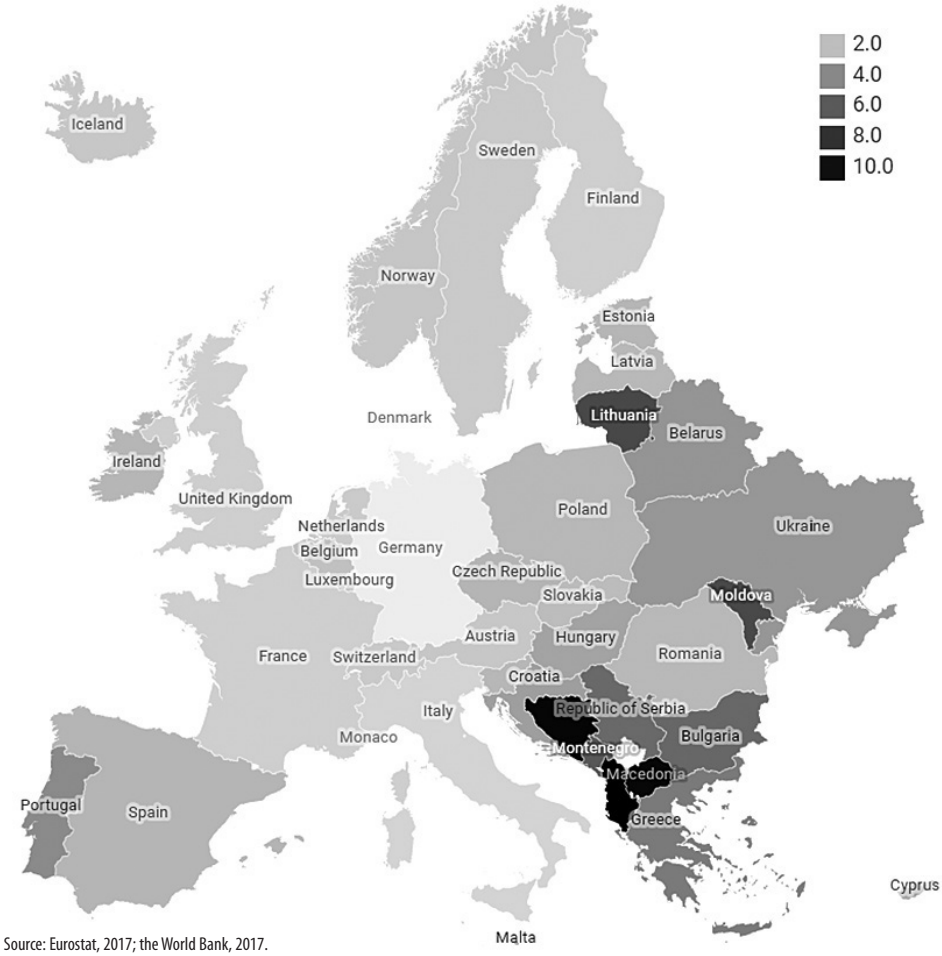
Furthermore, there must be a high industry and national readiness level where MSMEs have ***less influencing power*** than large enterprises (Aziz et al., 2016). The lack of readiness is in general felt as an ***external pressure*** from the suppliers or customers, which is crucial to provoke a change in brick-and-mortar business conduction. A big pull effect comes from the customers who have become ***more demanding*** and are continuously increasing their expectations.

2.1.4 Technological challenges

A ***lack of e-commerce infrastructure and standards*** is a key challenge. Not many countries have an efficient, affordable, and reliable connectivity network. In developing countries, MSMEs deal with inefficient telecom services, inadequate quality, unstable power suppliers, limited penetration, and a high cost of Internet connections (ITC, 2016). Figure 4 summarizes the range of broadband and access costs across Europe.

MSMEs aim for appearing at the top of the list of the most popular websites, thus overcoming ***comparative buying capabilities***. Another threat is the ***lack of reliable network infrastructure services***. E-commerce could be very easily damaged by downtimes and crashes of the Internet. ***The lack of internet security*** and ***data protection*** are a huge challenge. Yazdanifar et al. (2011) show that 63 percent of online customers intentionally delay providing personal data due to diminished confidence and fear of leakage of private information.

Figure 4. Broadband costs versus average net income range (in percent) in Europe



Source: Eurostat, 2017; the World Bank, 2017.

2.2 Internal challenges and weaknesses

Limited resources have been listed as the most important obstacle for SMEs in Sweden (Beheshti and Sangari, 2007). The transition path to e-commerce is costly and companies cannot afford to experience a failure. E-companies in general struggle with the lack of time and capital, finding skilled employees, and maintaining the right management support. Moreover, adaptability is good in the short term, but the fast-changing environment and MSMEs flexibility could lead to the ***loss of focus*** and lack of direction (Heskett, 2011).

Furthermore, the ***owner's strategic vision*** is important in the decision-making process. The owner's lack of knowledge, focus on short-term return, awareness of the technology usage and perceived benefits are a major barrier to adopting e-commerce (Scupola, 2014). ***Organizational reluctance to change***, accompanied by a ***lack of proper management support***, leads to an unclear picture of the actual barriers to e-commerce adoption. Abid et al. (2011) present an insightful finding that the top five ***expected barriers*** (lack of time, complexity, high cost, inadequate skills, and resistance to change) substantially differ from the top five ***experienced barriers*** (limited resources, inadequate skills, lack of compatibility between current and e-commerce infrastructure, high cost, and complexity).

An important obstacle is also the ***nature of goods and services*** that the companies provide. Weapons, cigarettes, prescription drugs and food are only some of the examples which are not suitable for online transactions (Khurana, 2018). Another challenge is to become part of a ***business network*** where most of the partners use e-commerce, otherwise, companies might be left out and suffer from a ***limited access to information*** (Ghobakhloo, 2015).

3 Policy issues and recommendations

Based on the previously discussed challenges, we next summarize the main policy issues that need to be addressed and provide several recommendations for the policy makers in Europe. In order to help overcome these issues, the policy makers should focus on addressing the challenges of MSMEs by providing ***comprehensive support*** for development.

Policy makers should achieve successful ***implementation of the new EU VAT policy*** for e-commerce. Furthermore, there is a much needed ***inclusion of addressing MSMEs directly in the new trade deals*** that will be negotiated with foreign countries in the future. Moreover, policy makers will need to ***develop e-commerce standards and operational plans*** to aid the advancement of MSMEs cross-border e-commerce and create sufficient alternative dispute resolution mechanisms for MSMEs. Lastly, they will need to aid MSMEs to ***secure appropriate legal support*** given their lack of expertise and knowledge of the law, especially with regards to trade laws in foreign countries (Rigby Cooke Lawyers, 2017).

Comprehensive EU support for MSMEs can be best achieved by following the example of the US. The US has created the Small Business Administration, through which the US government invests to support MSMEs by including provision of funding, local assistance, technical advice and mentoring by those who already have business expertise in the area. The institution also has an advocacy role and represents the interests of small businesses by influencing broader government policy from the perspective of MSMEs.

The ***harmonization of the European VAT system*** is necessary. The EU needs to ***extend the Mini-One-Stop-Shop (MOSS)*** to all the goods and services sold online. This would simplify the process and reduce the costs. SMEs would benefit from making a single declaration and payment for VAT in their own countries. ***Establishing a common European VAT threshold for the destination principle*** would foster fair competition and cross-border trade for SMEs.

Trade policies need to be included into a broader trade agenda. Its chapters would need to cover issues such as access to financing and e-commerce solutions, advocacy, easier access to infrastructure and business mentoring, as well as lowering disproportionate costs and paperwork connected with the services MSMEs require in the supply chain.

Moreover, there is a need for the ***development of standards and operational plans to aid the advancement of MSMEs cross-border e-commerce***. These standards need to cover areas such as advanced electronic data and risk management, facilitation and simplification, safety and security, revenue collection, measurement analysis partnerships, public awareness, outreach, capacity building, and legislative frameworks (Rigby Cooke Lawyers, 2017).

Alternative dispute resolution needs to be created for the purpose of problem solving among MSMEs themselves and vis-a-vis the government regarding e-commerce. The countries need to address the issue of jurisdictions with regards to cross-border trading.

Countries need to ensure that MSMEs have ***appropriate access to legal support***. They can help them in the following areas: performing due diligence of business partners, ensuring compliance with regulatory requirements of border agencies on foreign markets to avoid penalties, helping with creation of appropriate contracts, ensuring intellectual property protection rights are respected, ensuring that contracts include specific dispute resolution chapters,

and engaging with suitable industry associations in order for MSMEs to be able to learn and benefit from other traders.

Conclusion

To sustain and enhance their market position, MSMEs should seriously consider using e-commerce, the new way of doing business. Our research showed that the benefits that MSMEs could enjoy by the implementation of e-commerce outweigh the challenges that they have to deal with. The internet is shaping the future of business and every company should strive to implement the technologies suitable for them and thereby strengthen their competitiveness. As Barack Obama said (Olanoff, 2015) ***"The Internet is not a luxury, it is a necessity."***

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V.

CHANGING CUSTOMERS' BEHAVIOUR

Marko Pahor, Boris Tone Peršak, Iva Starc, Mojca Svetek

PROFILING SLOVENIAN AND GERMAN-SPEAKING ONLINE SHOPPERS: WHO SHOPS ONLINE AND WHO AVOIDS ONLINE STORES?

Introduction

In today's very competitive retailing world, where individuals demand personal treatment even when shopping online, retailers should focus their efforts on the identification of their customers and the motives that drive their shopping behaviour, as their profits and survival depend on it. Theory suggests that the main motives for purchasing are convenience, cost saving, information availability, selection, adventure seeking, exploration, etc. (Hirschman and Holbrook, 1982; To et al., 2007); and all these foster loyalty if they are fulfilled by the retailers. However, different motives drive different shoppers, and retailers must know which group of consumers they are addressing, in order to be successful. Different studies list different segments of online shoppers (e.g. basic communicators, lurking shoppers and social thrivers (Aljukhadar and Senecal, 2011); socializers, e-shopping lovers and e-value leaders (Allred et al., 2006); converted, concerned convenience seekers and fearful shoppers (Harris et al., 2017)), which are quite similar. However, none of the studies have included online consumer lifestyles (activities, interests, and opinions) and the creation of segments.

Thus, the aim of the chapter is to develop a typology of online shoppers, based on their shopping orientation, lifestyle characteristics and factors that they perceive important when shopping. The information we provide might help

better understand Slovenian and German-speaking customer segments with regards to online shopping. In addition, we also provide some recommendations on how to better accommodate the needs and demands of these segments.

The first part of the chapter elaborates on what motivates consumers to shop and presents the already established typology of consumers. In the second part, the goals of our research and methodology will be explained, followed by the results and managerial implications of our findings.

1 Shopping motives and typology of consumers

Hirschman and Holbrook (1982) describe consumers as either "problem solvers" or in terms of consumers seeking "fun, fantasy, arousal, sensory stimulation, and enjoyment." These two descriptions effectively summarize the two main typologies of consumer motivations. The first one, "problem solvers," corresponds to utilitarian motives, and the second one, "consumers who seek fun, fantasy and arousal", is typical for consumers with hedonic motivation. To et al. (2007) explain in their study that the main underlying values of utilitarian motivation are convenience, cost saving, information availability and selection. On the other hand, the values of hedonic motivation are mainly focused on adventure seeking, exploration, and affinity to status and authority.

There are also differences in internet search and purchase intent regarding the motivations that a person exhibits. For example, in their studies Verhoef and Langerak (2001) and Blake et al. (2005) found out that people with utilitarian motives are more likely to make a purchase compared to people driven by hedonic motivation. A more recent research (Kim and Eastin, 2013; Scarpi et al., 2014) confirmed that hedonic shoppers are more keen on shopping at brick-and-mortar stores compared to online shopping. In spite of this, when shopping online they spend a lot of time browsing through the webpage, which makes them more likely to buy online. They also like to hunt for deals and auctions. Furthermore, they are more likely to read promotion e-mails, are on average more loyal to the websites, and are more willing to spread word of mouth compared to utilitarian consumers. Moreover, it has been suggested that approximately half of the online consumers can be categorized as hedonic (Scarpi, 2012). This makes hedonic shoppers a very valuable target for e-marketers. It is important to note that both segments have been found to be price-conscious to a similar extent (Lim, 2017; Scarpi, 2012; Scarpi et al., 2014), indicating that "shopping for fun" does not mean forgetting about the prices.

Taking into account the findings from previous studies, we can presume that there is an opportunity for online retailers to try and find a way to attract also consumers with more hedonic motivation, perhaps with trying to mimic and recreate the experiences of brick–and-mortar shops that people with hedonic motivation enjoy more. On the other hand, this can also be a wakeup call for brick-and-mortar stores to try to enhance the shopping experience for their customers, in order to keep them coming back and not let them be taken away by online retailers.

Growth in the number of internet users represents a valuable opportunity for e-commerce. However, to be able to take full advantage of the opportunity created, online businesses should understand the unique characteristics of online shoppers as well as differences between them based on demographics, lifestyle, social and personal characteristics, attitudes and behaviours.

A bulk of empirical research (e.g. Allred et al., 2006; Kalia, 2016; Lim and Cham, 2015) has focused on comparisons between online shoppers and in-store shoppers. However, as noted by Harris et al. (2017), many if not the majority (depending on the product category) of buyers are multichannel shoppers. Therefore, we argue that usage should be at the heart of online customer segmentation (meaning how often and how much the customers are using a certain channel) rather than the channel itself.

That being said, the aforementioned research does offer some important insights into antecedents of online shopping. As reported by Ahmad et al. (2010), a number of studies have found a relationship between internet usage (length and frequency) and frequency of online shopping. Not surprisingly, online shoppers report higher internet self-efficacy (Aljukhadar and Senecal, 2011; Allred et al., 2006) and lower levels of security fears (Allred et al., 2006; Harris et al., 2017). Although confident internet users are more likely to shop online, not all internet users enforce online shopping. Those who use the internet for chatting more, use it less for shopping, e-mailing and general browsing, indicating that this particular segment of internet users might not be an attractive target for online marketers (Aljukhadar and Senecal, 2011).

Furthermore, it has been shown that online shoppers tend to be time-deprived consumers (Ahmad et al., 2010) who value convenience more (Lim and Cham, 2015), suggesting that handiness might be one of the most important benefits sought in e-commerce. Online shoppers have also been found to be more will-

ing to adopt new technologies and products, they seek more variety (Lim and Cham, 2015) and are more prone to multitasking (Ahmad et al., 2010).

Online shoppers are mostly male, well educated, professionals with above average disposable household income and big overall spenders (Allred et al., 2006; Kalia, 2016). A typical online shopper usually belongs to a wealthy dual-career family with small children and lives around large cities (Kalia, 2016). Characteristics such as age, gender and income did not explain shopper online behaviour once consumer became familiar with e-shopping, suggesting that firms should try to reduce initial barriers consumers face in e-commerce rather than target potential customers based on these characteristics (Hernandez et al., 2011).

The literature differentiates primarily three segments of online consumers. Aljukhadar and Senecal (2011) identified three segments with respect to their internet use pattern: ***basic communicators*** (39 percent), ***lurking shoppers*** (39 percent) and ***social thrivers*** (22 percent). Lurking shoppers (the segment which shops online the most) are on average highly educated and belong mainly to the higher age groups compared to other segments of internet users (mid-aged and elderly; although in general most of the internet users are younger), having an average to high internet self-efficacy perception and belonging to highest income group compared to other segments (although all income groups can be active online shoppers).

Allred et al. (2006) identified three segments of active e-shoppers based on their internet use patterns and attitudes: ***socializers*** (31 percent), ***e-shopping lovers*** (34 percent) and ***e-value leaders*** (35 percent). E-shopping lovers spend more money online mainly because they dislike shopping in brick-and-mortar stores; e-value leaders shop online because they are convinced that internet offers better selection, quality and lower prices; socializers, on the other hand, although they are very active online, prefer to shop at brick-and-mortar stores with family and friends and emphasize the importance of seeing things in person before buying. Moreover, socializers and e-value leaders are capable leaders of social opinion.

Harris et al. (2017) identified three clusters of online shoppers: ***converted*** (31 percent), ***concerned convenience seekers*** (30 percent) and ***fearful shoppers*** (39 percent). Converted online shoppers, similarly to e-shopping lovers, perceive greater disadvantages in brick-and-mortar shopping than in online shopping, they perceive online shopping to be convenient and permitting easier price comparison and greater product variety; they don't see advantages in spon-

taneous shopping, seeking in-store offers, browsing for ideas, etc. Concerned convenience seekers hold slightly negative attitudes towards traditional stores as well but also enjoy impulsive shopping; at the same time they perceive online shopping as convenient but are concerned with late and missing deliveries and product information. Finally, fearful online shoppers express concerns towards buying online and prefer to shop in brick-and-mortar stores.

Although many researchers[1] have addressed the role of demographic, attitudinal (e.g. attitudes towards online and brick-and-mortar shopping), behavioural (e.g. internet usage) and personal characteristics (e.g. hedonic and utilitarian shopping orientations) in e-retail, none of the studies have touched upon online consumer lifestyle, characterized by activities, interests, and opinions. Similarly, the cited research failed to explicitly categorize consumers into heavy, moderate and light users.

2 Research goals and methodology

Research goals and research questions. The aim of research is to extend current knowledge of online consumer by providing insight into lifestyle characteristics, such as fashion consciousness, leisure orientation, internet involvement and e-shopping preference, in addition to demographic characteristics and shopping behaviour. Our research questions were the following:

1. How do Slovenian and German-speaking participants differ in their lifestyle characteristics, perception of the importance of shopping factors, shopping behaviour and usage of e-shopping?
2. Which factors could contribute to more online shopping for the Slovenian and German-speaking segment?
3. How do online users differ in their online shopping preferences based on lifestyle characteristics, the importance of shopping factors, shopping behaviour and usage of e-shopping?
4. Which factors would contribute to more e-shopping of each identified segment?

Questionnaire. To obtain the data we designed a questionnaire in the Slovenian and German languages. The questionnaire included basic demographic information, lifestyle measure, shopping behaviour measure, questions regard-

1 Aljukhadar and Senecal (2011); Allred et al. (2006); Harris et al. (2017).

ing internet usage for shopping purposes, factors that may be important when shopping online, factors that could encourage online shopping, tendency to respond to discounts and promotions, and willingness to shop over the internet. The target population for this study was the internet-connected general public in Slovenia and German-speaking countries (Austria, Germany and Switzerland). Participants were recruited via Facebook and LinkedIn platforms, through which we collected a self-selected sample of participants.

Sample description. 252 questionnaires in the Slovenian language and 180 in the German language were at least partially completed. Out of those, 174 questionnaires (69.0 percent) in the Slovenian language and 110 (61.1 percent) in the German language were fully completed.

The final sample of the Slovenian and German-speaking respondents was biased towards younger (M_{Si}=33.2 yrs, M_{De}=30.2 yrs) and more educated individuals (69.3 percent of the Slovenian participants and 100 percent of the German-speaking participants reported tertiary education). The majority of our respondents were employed or self-employed (62.0 percent of the Slovenian and 80.9 percent of the German-speaking respondents), followed by students (28.1 percent of the Slovenian and 19.1 percent of the German-speaking respondents). The German-speaking respondents reported a significantly higher median household income (3001-4000 EUR) than the Slovenian respondents (1801-2100 EUR). This can be attributed to the fact that the average income in Germany is higher than in Slovenia – while in Germany the average household net-adjusted disposable income per capita was 33,652 USD (29,193.11 EUR) in 2017, the average household net-adjusted disposable income per capita in Slovenia was 20,505 USD (17,788.09 EUR) in 2017 (OECD, 2018).

In connection with online shopping behaviour, we found that the vast majority (n=226, 89.7 percent) of the Slovenian respondents and all (n=180, 100 percent) of the German-speaking respondents have shopped online in the last 12 months. More summary statistics are presented in Table A1 in Appendix.

Analysis. We performed a series of exploratory factor analyses in order to obtain aggregated lifestyles, shopping behaviour and shopping factor variables. We also aggregated usage information we obtained for each product category to be able to estimate the frequency and proportion of online shopping.

Afterwards, a cluster analysis was employed using aggregated lifestyles, shopping behaviour characteristics, shopping factors, usage and willingness

to shop over the internet. The result of the analysis was four distinct segments of consumers.

Finally, we used a series of chi-square tests, t-tests, Kruskal-Wallis and Mann-Whitney tests to assess the differences between clusters and Slovenian and German-speaking respondents on shopping factors, lifestyles, shopping behaviour, influence factors, usage, discount seeking, as well as demographics and sociographics to assess the differences between clusters and markets.

3 Results and discussion

There are several interesting and useful insights that can be extracted from our research. To start with, it seems that the Slovenian respondents find themselves more fashion conscious, they want to be in line with the latest fashion trends and own the latest and newest products substantially more than the German-speaking respondents. Also, we notice that when buying online, the Slovenian respondents value convenience more than the German-speaking ones, meaning they like to see a lot of variety in products when shopping online but also want to be more time efficient when making an online purchase. However, as far as the price point goes, affordability is important to the same extent.

When it comes to payment, having more payment options will attract Slovenian shoppers as they find this to be important. German-speaking respondents, on the other hand, do not put much importance on different payment options offered.

Furthermore, Slovenian customers are less willing to spend bigger amounts of money for a single online purchase (on average up to €500), compared to German-speaking consumers who would, on average, not mind spending up to €3,000 for an online purchase (Table A2).

The segmentation analysis based on lifestyle, shopping behaviour, including discount seeking, and shopping influence factors identified four segments: trendy, uninvolved, conservative and e-involved shoppers. The summarized characteristics of each customer segment can be viewed in Table 1 (Tables A3, A4 and A5 provide details on demographics and attitudes across the segments).

The differences between the German-speaking and Slovenian sample concentration in different segments are too small to be considered statistically

significant. However, the German-speaking respondents seem to be slightly more concentrated in the cluster of uninvolved shoppers, while the Slovenian respondents tend to be slightly more concentrated in the cluster of trendy shoppers, which is in line with our finding that the Slovenian participants consider being on-trend and owning the latest products more important than the German-speaking respondents (see the country comparison in Tables A6 and A7).

Table 1. Customer segments and their main characteristics

Segment:	Trendy	Uninvolved	Conservative	E-involved
Segment proportion	34.2 %	12.7 %	32.0 %	21.1 %
Lifestyle	• Like to be on-trend very much and are always looking for novelties • Have positive attitudes towards using the internet but moderate use • Active lifestyle	• Not following any trends • Least physically active	• Least prone to trends • Low internet use and the most negative attitudes towards it	• Moderately prone to trends • Very high internet use and positive attitudes towards it • Active lifestyle
Shopping behaviour	Mostly impulsive, hedonic	Unplanned	Planned, utilitarian	Moderately impulsive
Shopping factors	• Expect shopping to be an experience • Shop at recognized stores • Value interaction with salespeople • Like to examine products before purchasing	• Concerned about online shopping security • Do nott put much importance to any other factors	Like to examine and compare products to make an informed purchase decisions	• Value convenience • Like to read the information about products and compare them
Discount seeking	High (expect prices to be lower than in brick-and-mortar stores)	Moderate	Moderate	Low (expect prices to be similar than in brick-and-mortar stores)
Online shopping usage	Moderate	Low	Very low	Very high
Demographics and sociographics	• Younger respondents (mostly up to 37 yrs) • Most likely to use a car as the main means of transport	• Younger or older respondents (either below 23 yrs or above 66 yrs) • Least educated • More likely to live alone	• The lowest median household income More likely to live with an extended family	• Most educated • The highest median household income • More likely to live as a couple (with our without small children) Use public transport more than other segments

Source: Own Research, 2018.

4 Managerial implications

It would appear that the most attractive segment to target among the not-yet-converted e-shoppers is the trendy shoppers segment. Since they like to stay in touch with the latest fashion, they already are frequent shoppers as a result of continuously changing trends. However, they still have not fully adopted online retail as their go-to shopping activity. In order to attract this segment of customers we recommend online retailers to ***offer discounts, limited time offers and "great deal" offers on the newly arrived and trendy products***, as this might trigger the impulsive nature of this segment to buy something online. We also recommend, based on our findings, that retailers try to shorten their shipping times as much as possible, as this segment has a more hedonic motivation, which means they yearn for a fast satisfaction of their (shopping) needs. In addition, free shipping, discounts and short delivery time were found very important for this customer segment, as well as all other ones, and seem to be the best general strategy for attracting internet users to online shopping.

The next segment that would be interesting is the segment of conservative customers. They represent a fairly large portion of the population but are not online shopping enthusiasts just yet. In order to attract them we recommend online retailers to ***offer a lot of information about the products on their websites and enable reviews, ratings and comparisons.*** These features were found to be very important to this segment. This is not surprising, given that they are very rational consumers. In addition to this, it seems that conservatives desire e-shopping to be easier, which is not surprising given they show the lowest internet involvement out of all segments and are the least frequent users. For this segment, it is likely that it will adopt online shopping if it starts to perceive online shopping as a better and more convenient alternative.

A more general observation is the one concerning the offer of products in the two markets. For the German-speaking market, the amount of money that people are willing to spend online for a single purchase is quite high (up to €3,000), however, for the Slovenian market this number is significantly lower (up to €500), which means that ***retailers might have a hard time selling expensive products online in Slovenia***. Results show that people in Slovenia are just not willing to buy such pricey items online and in these cases still resort to brick-and-mortar stores. Finally, we observe that Slovenian shoppers have not adopted e-shopping with global e-retailers to the same extent as the German-speaking shoppers, which can be explained with their smaller involvement in e-shopping as well as absence of national sites at global retailers.

The final recommendation we can give concerns the shipping fees. As we can see the Slovenian market is in general quite demanding (expecting the latest models, high product variety, convenience and shopping efficiency), but as far as our research goes, shipping costs were found to be very important to all segments and both markets in making a decision to buy online. The same can be stated for discounts and offers. So we can recommend ***that shipping costs are held as low as possible*** in order to not deter potential online buyers and that shoppers are offered discount coupons on products or shipping.

Conclusion

It is clear that online shopping is fully present and is not going anywhere soon. However, it appears that brick-and-mortar shops are here to stay as well. As people search for further differentiation and personalization in their shopping experience, the need to better profile and segment one's target audience grows, too. It seems that proper and detailed customer segmentation will have a decisive role in determining which businesses will thrive and which will be left behind.

As we have shown in this chapter, segmenting customers based also on their lifestyle factors can provide useful insights for managers seeking to improve their online as well as brick-and-mortar presence in this ever competitive world of retail. In short, retailers should customize their offers, individualize customer experiences and tailor their product recommendations. But to be successful in that they need to know their target audience "inside out".

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Appendix

Table A1. Summary of the respondents' socio-demographic profile

Socio-demographic variables	Slovenian-speaking sample		German-speaking sample	
	Frequency	Percentage	Frequency	Percentage
Age				
15-22 years	17	12.1	10	12.0
23-37 years	79	56.0	61	73.5
38-51 years	34	24.1	12	15.4
52-66 years	7	5.0	0	0.0
66+ years	4	2.8	0	0.0
Education				
Primary education	10	5.8	0	0.0
Secondary education	43	24.9	0	0.0
Post-secondary education	24	13.9	16	14.5
Higher education	96	55.4	174	85.5
Employment status				
Employed	94	54.0	86	78.2
Self-employed	14	8.0	3	2.7
University student	38	21.8	20	18.2
High-school student	11	6.3	1	0.9
Homemaker	3	1.7	0	0.0
Unemployed	7	4.0	0	0.0
Retired	7	4.0	0	0.0
Household composition				
Single-head	25	14.5	27	24.5
Couple	39	22.5	42	38.2
Family with young children	45	60.0	14	12.7
Family with older children	48	27.7	13	11.8
Extended family	11	6.4	3	2.7
Income				
Up to €400	4	2.3	2	2.2
From €401 to €700	9	6.0	1	1.1
From €701 to €1,100	12	8.1	9	9.7
From €1,101 to €1,500	25	16.8	1	1.1
From €1,501 to €1,800	15	10.1	2	2.2
From €1,801 to €2,100	17	11.4	4	4.3
From €2,101 to €2,500	14	9.4	15	16.1
From €2,501 to €3,000	21	14.1	12	12.9
From €3,001 to €4,000	20	13.4	13	14.0
More than €4,000	12	8.1	34	36.6

Socio-demographic variables	Slovenian-speaking sample		German-speaking sample	
	Frequency	Percentage	Frequency	Percentage
Place of residence				
Village (SLO: up to 3,000 residents; GER: up to 5,000 residents)	45	25.9	13	11.9
Small town (SLO: up to 6,000 residents; GER: up to 20,000 residents)	19	10.9	6	5.5
Medium-sized city (SLO: up to 10,000 residents; GER: up to 100,000)	10	5.7	16	14.7
Big city (SLO: more than 10,000 residents; GER: more than 100,000 residents)	100	57.5	75	67.9

Source: Own Research, 2018

Table A2. Amount of money willing to spend online for a single purchase – Country Comparison (in €)

Variable	Respondents	N	Mean rank	Mann-Whitney U
How much are you willing to spend online?	**Slovenian**	157	114.54	5580.50***
	German-speaking	110	161.77	
How much should online price be lower for you to consider online shopping?	**Slovenian**	174	154.20	7534.00**
	German-speaking	110	123.99	
Frequency of purchasing from local e-retailers	**Slovenian**	154	133.17	7288.50
	German-speaking	103	122.76	
Frequency of purchasing from global e-retailers (e.g. Amazon, Ebay, Alibaba …)	**Slovenian**	145	106.88	4912.0***
	German-speaking	107	153.09	

Note: * <.05, **<.01, ***<.001.

Source: Own Research, 2018.

Table A3. Demographics of clusters

Demography Factor	Description of results
Means of transportation, type of household	Trendy shoppers are more likely to use a car as the main means of transport, while e-involved are more likely to use public transport (χ^2=21.78, p=.04). The e-involved are less likely to live alone and more likely to live either as a couple without or with small children. The uninvolved are more likely to live alone, while conservatives are more likely to live in extended families (χ^2=25.92, p=.05).
Age, education, income	*Kruskal-Wallis*: The uninvolved are found to be the youngest (Mdn=25.0 years) on average (χ^2=9.01, p=.03). The e-involved seem to be the most educated (Mdn=6, master's degree; others Mdn=5, bachelor's degree) (χ^2=9.30, p=.03). The e-involved also report the highest household income (Mdn=8, 2501-3000 EUR), while conservatives report the lowest (Mdn=7, 2101-2500 EUR) (χ^2=9.40, p=.02).
Clusters – Country comparison	There are no differences regarding the countries in the clusters (χ^2=7.65, p=.06), although Slovenes seem to be classified to the trendy segment slightly more often than Germans, Austrians and the Swiss, whereas the latter slightly more often to the segment of the uninvolved than Slovenes.

Source: Own Research, 2018.

Table A4. Attitudes towards online spending and discounts – Segment comparison

Variable	Cluster	N	Mean rank	Kruskal-Wallis H
How much are you willing to spend online?	Trendy	96	108.14	26.56***
	Uninvolved	32	139.50	
	Conservative	79	134.01	
	E-involved	60	172.43	
How much should the online price be lower for you to consider online shopping?	Trendy	97	159.45	27.56***
	Uninvolved	36	140.86	
	Conservative	91	155.86	
	E-involved	60	95.82	

Note: * <.05, **<.01, ***<.001.

Source: Own Research, 2018.

Table A5. Factors contributing to more online shopping

Variable	% selected	Cluster	% selected	Pearson χ2
Online shopping personalization	19.37	Trendy	23.71	2.99
		Uninvolved	13.89	
		Conservative	15.38	
		E-involved	21.67	
Discounts	71.83	Trendy	82.47	8.48*
		Uninvolved	69.44	
		Conservative	65.93	
		E-involved	65.00	
Ease of online purchasing	39.08	Trendy	31.96	7.11
		Uninvolved	41.67	
		Conservative	49.45	
		E-involved	33.33	
Free shipping	77.46	Trendy	82.47	3.64
		Uninvolved	75.00	
		Conservative	71.43	
		E-involved	80.00	
Same-day & next-day delivery	56.69	Trendy	61.86	6.27
		Uninvolved	52.78	
		Conservative	47.25	
		E-involved	65.00	
Product reviews and ratings	42.25	Trendy	29.90	9.48*
		Uninvolved	47.22	
		Conservative	50.55	
		E-involved	46.67	

Note: * <.05, **<.01, ***<.001.

Source: Own Research, 2018.

Table A6. Online and offline shopping factors

Summed scale Item	FA item loading	Cronbach's alpha	M (SI)	M (DE)	t
Influence factors					
Social experience		0.85	2.58	2.52	0.43
Shopping with family and friends	0.88		2.56	2.49	0.44
Full experience (shopping trip)	0.80		2.58	2.57	0.04
Trust and security		0.66	3.96	3.67	3.58***
Store knowledge	.67		3.76	3.56	1.71
Familiarity with the store	.59		4.14	3.99	1.60
Payment security	.57		4.40	4.21	1.67
Payment options	.42		3.60	2.92	4.65***
Information search		0.66	4.17	4.09	1.09
Availability of information	.88		4.26	4.10	1.72
Possibility of product comparison	.49		4.13	4.07	0.60
Convenience		0.61	4.30	3.87	5.67***
Product variety	.74		4.37	3.65	6.75***
Affordable price	.46		4.30	4.19	1.27
Speed of purchase	.44		4.25	3.76	4.37***
Tangibility and interaction		0.62	3.43	3.21	2.04*
Product inspection and trial	.64		3.65	3.39	2.03*
Salespeople's advice	.59		3.25	3.04	1.71
Lifestyle					
Fashion consciousness		0.76	2.98	2.50	4.01***
I like to follow trends in fashion.	0.77		2.90	2.41	3.51**
I like to buy the latest models.	0.75		3.07	2.58	3.78***
Internet involvement		0.52	3.36	3.16	2.04
I trust the information I find online.	0.50		3.25	2.96	2.63**
I believe shopping online is easier than in brick-and-mortar stores.	0.58		3.47	3.34	1.05
Physical activity		/	3.34	3.26	0.58
I like to do sports in my spare time.	0.40		3.34	3.26	0.58
Shopping behaviour					
Planned shopping		0.70	3.41	3.40	0.11
I always plan my online purchases in advance.	0.78		3.46	3.32	1.10
I always do a research before buying a product on the internet.	0.53		3.68	3.90	-1.96
I always plan my purchases in advance.	0.60		3.12	2.97	1.12
Impulsive shopping		0.61	2.33	2.22	1.04
The saying »buy now, think later« describes me perfectly.	0.71		2.11	1.82	2.33*
I often make spontaneous purchases online.	0.56		2.55	2.61	-0.46

Summed scale Item	FA item loading	Cronbach's alpha	M (SI)	M (DE)	t
Other variables					
Usage					
Usage frequency (aggregated): How often do you buy products from each product category online?			1.64	1.78	-2.87**
Usage proportion (aggregated): What proportion of products from each product category do you buy online?			1.15	1.51	-3.84***
Discount seeking/Price expectation					
How much lower should the product price be for you to buy the product online?			3.83	3.56	0.84

Note: * <.05, **<.01, ***<.001.

Source: Own Research, 2018.

Table A7. Factors contributing to more online shopping– Country comparison

Variable	% selected	Respondents	% selected	Pearson χ2
Online shopping personalization	19.37	Slovenian	19.54	0.01
		German	19.09	
Discounts	71.83	Slovenian	70.11	0.45
		German	74.55	
Ease of online purchasing	39.08	Slovenian	35.06	2.63
		German	45.45	
Free shipping	77.46	Slovenian	74.14	2.38
		German	82.73	
Same-day & next-day delivery	56.69	Slovenian	56.90	0.01
		German	56.36	
Product reviews and ratings	42.25	Slovenian	40.23	0.56
		German	45.45	

Note: * <.05, **<.01, ***<.001. Yate's correction of Pearson's χ^2 is used.

Source: Own Research, 2018.

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BRICK-AND-MORTAR VS ONLINE RETAIL

Introduction

With the introduction of the Internet consumers and businesses have been given a new channel through which they can communicate and interact. Consumers are spending a substantial amount of time on the Internet, which has changed the way of shopping and data gathering (Statista, 2018a). Initially, online retailers were understood as a direct threat to brick-and-mortar retailers (Forbes, 2018). Now, online businesses are going brick-and-mortar and vice versa.

The aim of this chapter is to provide insights into the current state and the future of retail, examine the main characteristics of online and brick-and-mortar retailers and present advantages and disadvantages for each retail type, followed by a closer analysis of consumer behaviour. In order to gain a better insight into how consumers perceive both brick-and-mortar and online retailers, literature review is complemented with a survey conducted in Slovenia and German-speaking countries (Austria, Germany and Switzerland). In the last part of this chapter, recommendations for both brick-and-mortar and online retailers are provided.

1 Brick-and-mortar retail vs. online retail

Traditional brick-and-mortar retailers started to change with the introduction of the Internet. Consequently, new business models have emerged, such as online retailing. This brought numerous improvements along with some difficulties, as presented in Table 1. These characteristics and challenges are further elaborated in the following sections.

Table 1. Characteristics, advantages, and disadvantages of each type of retail

Brick-and-mortar	Online
Characteristics	
• High operating costs • Rigid in responsiveness to changes • More workforce dependent	• Low entrance barriers • Easy expansion to new markets • Dependent on shipping/delivery options • Dependent on digital marketing capabilities • Customer-convenience driven
Advantages	
• Ability to test the product before the purchase • Less payment security issues • Immediate ownership of the product • Convenient return policy	• Flexibility of the business model, ease of update • Transparent processes, easy to monitor • Good communication within the supply chain • Low inventory holding cost and overheads • Customer intelligence
Disadvantages	
• High real estate costs • Limited store hours • Higher number of personnel • Usually higher prices	• Highly competitive environment • Customer trust related issues • Cross-border legal framework differences • Cybersecurity and privacy-driven issues

Source: Shopify, 2018; Lo, 2014; Shanthi and Kannaiah, 2015.

1.1 Characteristics and challenges of brick-and-mortar retailers

During the last couple of years, retailers have been under the immense influence of digital transformation. Fast coping with the industrial changes has become an obligation rather than a competitive advantage. Although retailers are working hard to diversify from each other and establish a unique brand for their customers, the core of their business is not very different, along with similar characteristics. For example, brick-and-mortar retailers operate their businesses with ***high expenses*** relating to long inventory cycles, employees' wages and often real-estate leases. At the same time, retailers are more ***rigid*** compared to online retailers in responsiveness to changes and their implementation (Retail Dive, 2018).

Recognizing the advantages that online retailers enjoy, a fair number of brick-and-mortar retailers have decided to terminate or partially transform their brick-and-mortar business to online business (Marketingland, 2018). Retailers are facing a negative trend considering the falling number of brick-and-mortar retailers every year (Statista, 2018b). Since 2001 sales made in department stores have fallen by 36 percent (Business Insider, 2018). On the other hand, online

retailers have started opening their brick-and-mortar stores, such as Amazon GO, whose primary reason for establishment was to do ***marketing*** for their own products which were available only online and for ***strengthening consumer relations*** through offline channels (Fortune, 2018).

Despite the hype around online shopping, consumers still do the shopping at brick-and-mortar stores. One of the unique characteristics of brick-and-mortar retailers, which is highly appreciated by consumers, is the ability to have a **face-to-face experience** with the products they want to purchase and with the personnel inside the store. 73 percent of consumers still prefer holding, trying and touching a product prior to making the final purchase (ICSC, 2018), while 54 percent of consumers are more likely to purchase in-store because of knowledgeable store associates (Deloitte, 2018). More than 70 percent of consumers would prefer to shop at a brick-and-mortar Amazon store than Amazon.com (Time Trade Research, 2018).

As presented earlier, brick-and-mortar retailers are faced with several challenges that can be hard to undertake as sometimes the whole organization needs to adopt the changes in response. In addition, the key challenges that retailers are going to be faced with in the future are outlined. One of the two very important aspects is a ***visual representation*** of the store, as the consumers want to be entertained with visually nice things to look at – changing the in-store screens when it is a rainy day, offering them something they cannot easily find in other stores. The second important aspect is ***enhancing the in-store experience*** by providing them some sort of visual navigation, an experience that will be hard or almost impossible to ever replicate online (McKinsey & Company, 2014).

Brick-and-mortar retailers used to perceive ***showrooming*** as an existential threat, with their customers coming to the store, taking a look at the merchandise being sold there and later placing the order online for a home delivery. Even though this used to appear as a problem, nowadays there are opposite trends showing online retailers might be more concerned with webrooming – seeing products online and making the final purchase in-store. 48 percent of showroomers use brick-and-mortar stores to do research on products with no plans of making a purchase and a quarter of them plan to buy in-store but change their minds during the process (Statista, 2018b).

As online shopping is still becoming increasingly more popular each year, the brick-and-mortar retailers are partially transforming into click-and-mortar by allowing their existing customers to do the shopping online. They are op-

timizing their brick-and-mortar stores to become some kind of ***logistics and pickup centres*** for online delivery as well. In this way, they are bringing down the inventory costs and expand their business (Prologis, 2018).

1.2 Characteristics and challenges of online retailers

This section examines characteristics and factors which are of high relevance to the overall success of an online retailer, such as market access and business expansion, convenience, cost structure, flexibility of business models and market competition.

In terms of ***access to market***, online retailers have a favourable position due to l***ow entrance barriers***, expressed in the simplicity of setting up an online store nowadays. Today an online retailer needs an idea, intention, a device and an Internet connection (Shanthi and Kannaiah, 2015). The ease of ***expanding to new markets*** over local customers or going cross-border is also a major advantage for online retailers. While brick-and-mortar retailers are limited by the set of constraints due to their physical nature, online retailers is limited by their digital marketing capabilities, legal regulation and the actual ability to fulfil orders (Invest Northern Ireland, 2016).

Online retail is meant to be ***convenient***. Convenience was the early driver of adoption by customers. According to CivicScience (2018), 43 percent of 1,649 adult US-based respondents stated convenience as a primary reason to make purchases online (eMarketer, 2018). Online retail is a ***flexible business format***, meaning that performance and processes are easy to monitor due to better communication and a higher degree of transparency within the supply chain. The business model can be updated with high frequency, therefore making it easier for businesses to meet the requirements of the dynamic business environment (Shanthi and Kannaiah, 2015). For the online retailer overheads within the cost structure are low, as there is no need for expensive state-of-art selling premises and their maintenance. Labour costs associated with the representative well-trained customer-facing sales staff are low as well. The presented factors imply ***lower inventory holding cost***, meaning that an online retailer can offer a ***wider assortment at a lower price*** to the final customer (Lo, 2014).

On the other hand, online retail operates in a ***highly competitive environment***, participants compete with brick-and-mortar counterparts and within the industry, where pricing and new kinds of services represent non-price competi-

tion (The Economist, 2017). The ability of an enterprise to magnify the effect of the above-mentioned advantages defines its ability to survive and grow in the dynamic and competitive environment. Mastering this ability itself represents a challenge for an online retailer. However, other factors add complexity to online retail business and are discussed in the following paragraphs.

Modern technological advancements disrupt the existing business models with innovative trends, such as artificial intelligence, the Internet of Things (IoT), mobile commerce, cloud computing, Industry 4.0, blockchain technology, voice-based assistants, chatbots, drones and others (Prevett, 2018). It is challenging but also important to catch-up with trends to secure a competitive position in the market.

Digital marketing has a key role in terms of generating new sales in the nowadays market realities, and it is also being disrupted by many on-going trends of the digital transformation era. Here it is important to highlight ***customer intelligence***, which refers to a wide range of online marketing tools like the ones for collecting and analysing customer data, which represent the core of ***customer-centred solutions*** demanded by a market (Kohtamäki, 2017).

The design and maintenance of ***customer-friendly and informative web platform*** is another challenge. Advanced navigation and search functions should lead the consumer through an intuitive flow and create a clear cut to the product. The superior content and detailed product description with the right set of accents must enhance consumer buying behaviour (PinnacleCart, 2015). In the context of informativeness, particularly ***the customers' product reviews*** play an important role. 85 percent of 1,031 US-based consumers trust the online reviews as much as personal recommendations (BrightLocal, 2017). In addition to that, expansion of mobile commerce also adds challenge to online retailers. As digital technology is changing the society, one of the implications for retailers is that ***online stores must be mobile-friendly*** (Kasemsap, 2016).

The success of online retailers depends significantly on the ***shipping and delivery options***. The consumer demand for free delivery is increasing and the market is willing to meet it. According to the survey, free deliveries increased by 5.8 percent in the last year (KPMG, 2018). A research on the UK market reports that three out of four UK consumers would spend more on online shopping if same-day delivery was possible (Stuart, 2016). To offer same or next-day delivery, which is so highly appreciated by customers, retailers must have significant capabilities at their disposal. Amazon's voice-based assistant, Alexa,

is able to manage orders to be delivered within 2 hours. Amazon is planning to deliver goods within 30 minutes. This will be achieved with drones, once the legal issues are resolved (Forbes, 2017b).

Without its own capabilities business can get access to the leading practices through ***synergies and collaboration with other start-ups and enterprises.*** However, identification of synergic opportunities and actual integration represent a challenge. American companies collaborate with start-ups, such as Uber, Deliv, Postmates, and others. European retailers might take a lesson from these and cooperate with local partners (O'Brien, 2017). Google Assistant, a Google Home feature, for example, allows to find re-stocking options for almost any type of goods due to the use of smart containers equipped with IoT devices. Google Home has been in partnership with Target and Walmart since 2017, particularly for the reason of making voice-driven shopping (ZDNet, 2018).

While ease of expansion and going cross-border represent benefits of being an online retailer, it does not come without l***egal framework implications***, which goes far beyond the topic of commercial drones. Regulations regarding customer rights, data, taxes and duties might vary in a cross-border context (Export.gov, 2018).

Being legally authorized for conducting business does not equalize being trusted by a consumer. One of the most challenging downsides of online retail is associated with the difficulty in earning ***customer trust***, due to the absence of face-to-face interaction between customer and retailer. ***Mutual trust and commitment are the key principles of a successful long-term relationship within an online retail context*** (Bauman and Bachmann, 2017).

Setting effective and quick customer service is essential for the success of an enterprise. ***Artificial intelligence brings a new spectrum of business opportunities***. It allows to create a customer-centric search offer and new levels of personalization across multiple devices. It also helps to identify exceptional target prospects, create more efficient sales process and provides a ***personal touch with chatbots***. All of these contribute to the perfection of customer service (Asling, 2017).

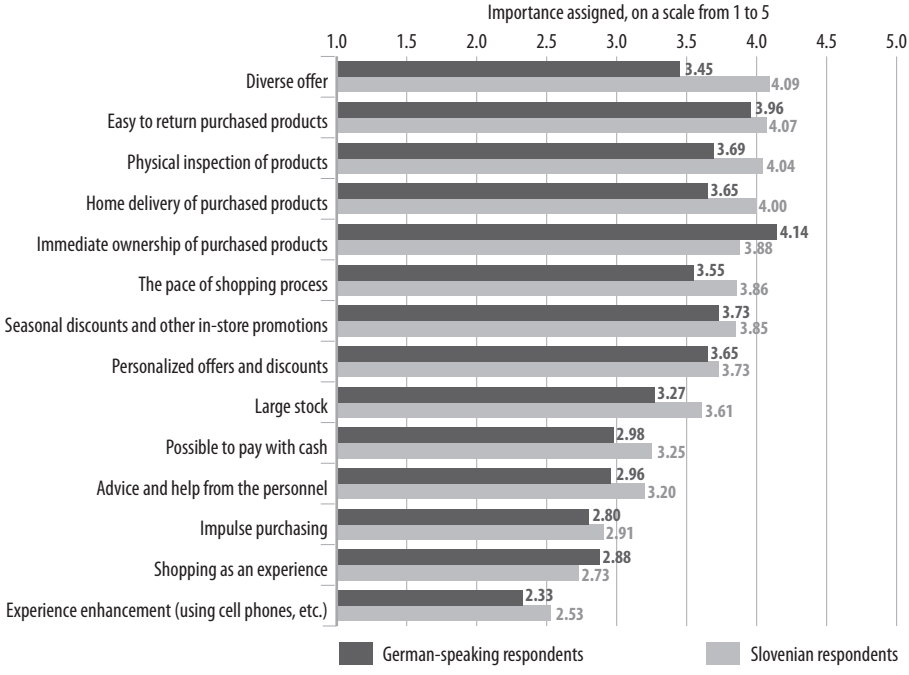
Last but not the least, another important factor is related to ***privacy and (cyber)security***. Leakages of sensitive customer data could result in significant financial losses and loss of customer trust, which is challenging to earn in the first place (Guillot, 2017). As data breaches and cyber-attacks are increasing at an alarming rate, many more challenges associated with security are yet to come (Lazaros and Grigoriadis, 2017). The ultimate support in the cybersecurity

challenge might be found within a decentralized platform technology known as blockchain, which enables businesses to concentrate on commercial activities through the implementation of the so-called smart contracts (Forbes, 2017a).

2 Survey findings

In order to assess the online and offline shopping behaviour, a survey among the internet-connected general public in Slovenia and German-speaking countries (Austria, Germany and Switzerland) was conducted. As being described by Pahor et al. (2018) in this book, the questionnaire included basic demographic information, lifestyle measure, shopping behaviour measure, questions regarding the Internet usage for shopping purposes, factors that may be important when shopping online or at brick-and-mortar stores, factors that could encourage online shopping, tendency to respond to discounts and promotions, and willingness to shop over the Internet.

Figure 1. Importance of different factors when consumers decide to make a purchase at a brick-and-mortar store

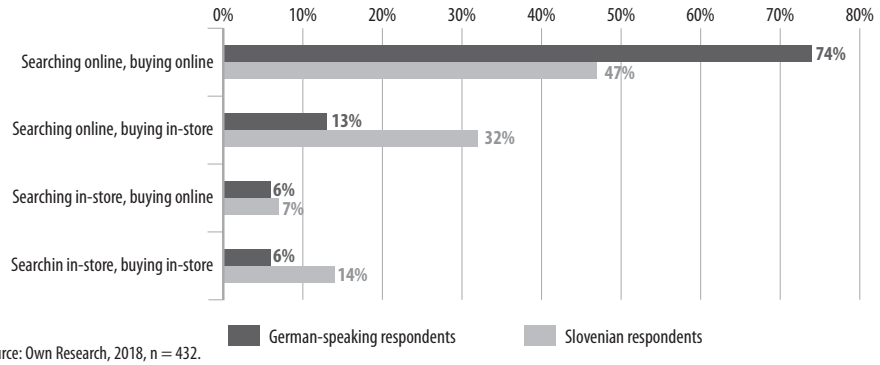


Source: Own Research, 2018, n = 432.

Our survey participants were asked to evaluate the importance of individual factors considering brick-and-mortar retailers on a scale from one (the least important) to five (the most important). The results are presented in Figure 1 for Slovenia and German-speaking respondents (Germany, Austria, and Switzerland). The results reveal that the most important factor for the German speakers is ***immediate ownership of purchased products*** with a mean of 4.14 – the importance of this factor has been recognized by the online retailers as well, such as Amazon, which is now offering free one-day delivery where this is possible (Amazon, 2018). For the Slovenian respondents, the most important factor is a diverse offer, enabling to choose which articles to buy at brick-and-mortar stores.

For a clear understanding whether showrooming practices are present, a closer look has been given at how consumers are obtaining the information about the products and where they make the final purchase (Figure 2).

Figure 2. Most frequent consumer shopping habits in the past 12 months (% of respondents who selected a specific habit)

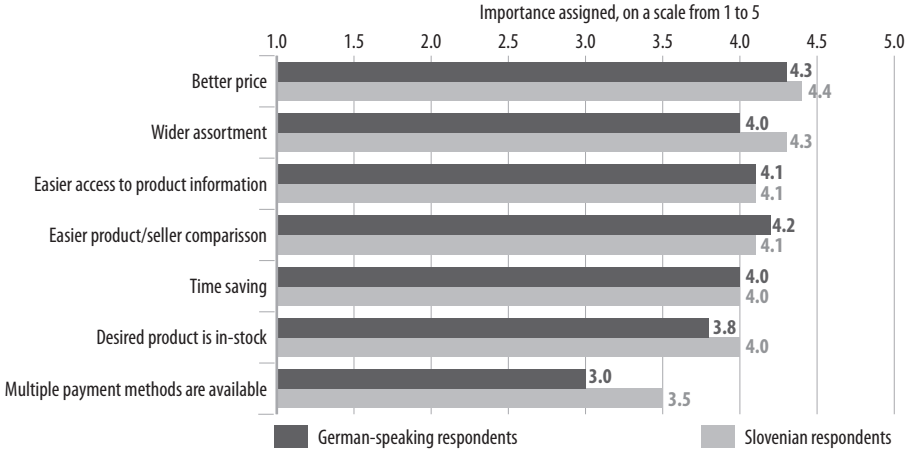


Source: Own Research, 2018, n = 432.

The majority of Slovenians make the final purchase on the web if this is where they gathered the information in the first place, however, this is even more evident in the German-speaking sample. Regarding show- and webrooming, the majority of Slovenians are more prone to do webrooming, meaning there is not much of a threat at the moment for brick-and-mortar retailers. Similarly, customers coming from Switzerland, Germany, and Austria practice more webrooming than showrooming. Slovenians are also more prone to searching and buying at brick-and-mortar retailers.

In order to understand the importance of factors that make online shopping attractive the participants were asked to evaluate them on a scale from 1 to 5 (1 = "does not matter at all" and 5 = "very important") (Figure 3).

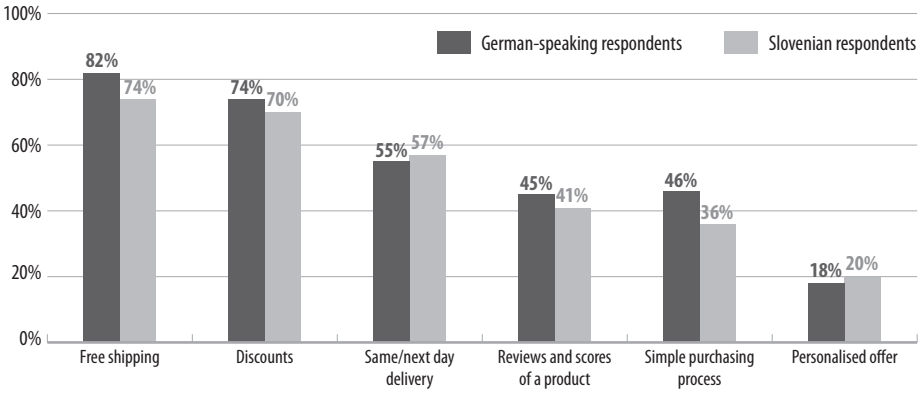
Figure 3. Importance of different factors in online shopping



Source: Own Research, 2018, n = 432.

Figure 3 represents mean values of answers. Better price is the leading factor in both samples, the German-speaking and the Slovenian one, when doing the shopping online. Most significant differences were recorded in the availability of multiple payment methods and a wider assortment, which were valued more in the Slovenian sample. Next, consumers indicated what would convince them into more frequent online shopping. As Figure 4 indicates, free shipping, discounts and quick shipping options are the most stimulating factors for more frequent online shopping.

Figure 4. Factors that would persuade consumers to buy online more often (% of respondents who selected a specific factor).



Source: Own Research, 2018, n = 432.

Table 2 represents shopping frequencies in the last 12 months, divided by type of mobile devices. The numbers might not add up to 100 percent due to rounding. It indicates that in our sample the majority of respondents do not shop online. When they do, they mostly use personal computers. This is not in accordance with other studies. However, our results show that in German-speaking countries people use mobile devices and do online shopping more frequently than in Slovenia.

Table 2. Frequency of online purchases by type of device in the past 12 months

		Type of device, % of respondents		
	Frequency	PC	Tablet	Smartphone
Slovenian respondents	Weekly	7	1	4
	Monthly	20	3	8
	6-11 times per year	30	4	15
	1-5 times per year	32	14	36
	Never	12	79	37
German-speaking respondents	Weekly	7	1	5
	Monthly	26	4	18
	6-11 times per year	30	11	14
	1-5 times per year	24	18	35
	Never	12	66	28

Source: Own Research, 2018, n=432.

Table 3 shows frequency of online shopping across multiple product categories in the last 12 months. The survey results also revealed that Slovenians most often buy books online and are more active in buying home accessories and pet related goods online, while German speakers are more active in doing grocery shopping online.

Table 3. Frequency of online purchases by product category in the last 12 months

Product category	Sample	Frequency, % of respondents				
		Weekly	Monthly	6-11 times	1-5 times	Never
Airplane tickets	SSR	0	6	24	38	32
	GSSR	0	7	19	49	25
Apparel and accessories	SSR	1	15	28	26	30
	GSSR	1	11	26	42	21
Books	SSR	0	43	38	12	8
	GSSR	1	11	26	42	21
Child care and toys	SSR	0	2	10	18	70
	GSSR	0	2	8	20	71
Electronics	SSR	0	5	18	42	35
	GSSR	0	2	27	47	24
Erotic goods	SSR	1	1	3	8	87
	GSSR	0	1	1	20	79
Food	SSR	1	2	7	20	71
	GSSR	8	5	10	17	61
Footwear	SSR	1	6	15	25	53
	GSSR	0	4	22	42	32
Hobby accessories	SSR	1	3	14	24	59
	GSSR	0	5	9	34	52
Home accessories	SSR	3	17	36	44	0
	GSSR	1	5	17	47	30
Pet care and accessories	SSR	2	5	11	14	68
	GSSR	0	2	5	7	87
School and office supplies	SSR	1	2	8	24	66
	GSSR	0	1	9	33	58
Sport and outdoor	SSR	1	1	12	38	48
	GSSR	0	2	11	49	39
Touristic arrangements	SSR	0	2	10	29	59
	GSSR	0	5	11	26	58

Note: "SSR" stands for "Slovenian sample respondents" and "GSSR" stands for "German-speaking sample respondents".

Source: Own Research, 2018, n=432.

3 Changes in consumer preferences and behaviour

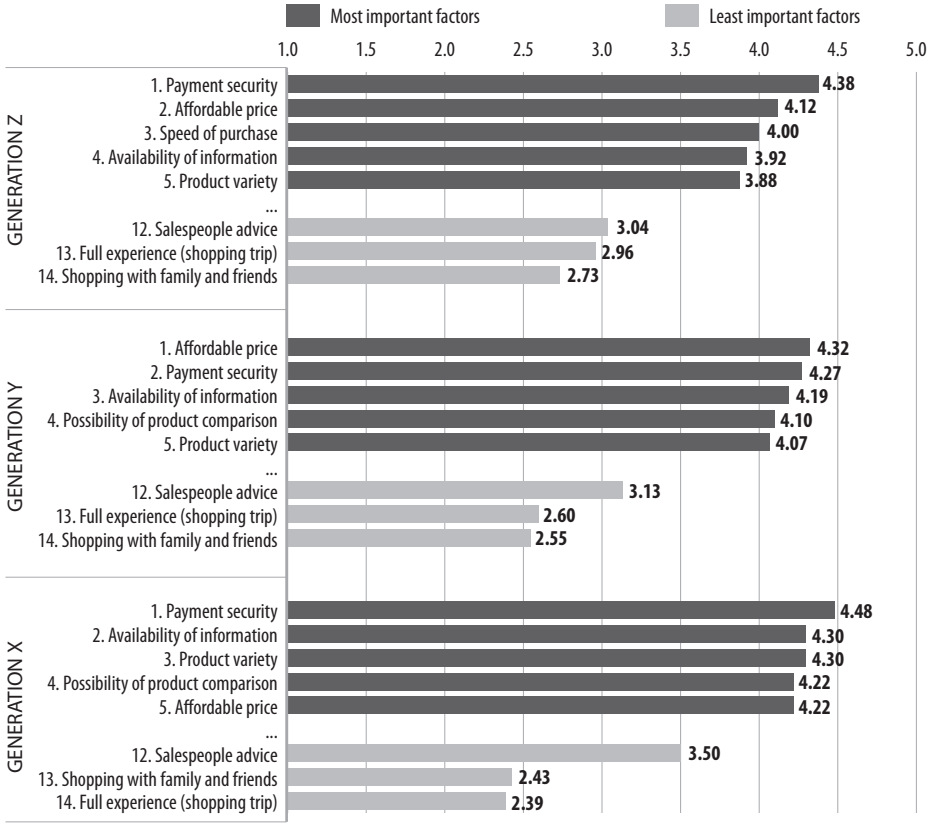
In the recent and upcoming years, millennials (Generation Y) and especially the new wave of Generation Z are becoming the driving force behind the changes in consumer behaviour (Criteo, 2018). Their population as well as their purchasing power is increasing yearly. The younger Generation Z is on the rise regarding their direct spending; however, due to their indirect spending influence their impact on retail is already massive. A US study found that this generation already influences 93 percent of all household purchases (Cassandra Report, 2015), which means that the values and habits of Generation Z are essentially changing the rules and trends in the retail industry.

Consumers nowadays are connected, mobile, open to sharing economy and digitally savvy. They expect seamless information on the product they are interested in and they demand more for their money (Criteo, 2018). Generation Z spends more time on their mobile devices than any other generation and is also the only generation with more time spent on mobile devices in comparison to desktop devices. However, their demands are not fully satisfied, neither online nor in brick-and-mortar store. The results of the research examining this generation showed that 67 percent use their phones in-store to search for additional information regarding the product they are considering while at the same time 65 percent do not like to buy products unless they can first touch them. They seem to like the whole experience of real-world shopping but still seek for options of enhancing and improving their experience (Criteo, 2018). On the other hand, a study based on more than 15,000 consumers aged 13-21 years from 16 countries found that even the digitally native group of Generation Z prefers shopping in brick-and-mortar stores (IBM, 2017).

Social media shopping is also gaining in the popularity as consumers are using it not only for purchasing but also for browsing, researching and for gaining inspirations. More than half of consumers are using it in their purchasing process, where Facebook, Snapchat and Instagram tend to be the main channels (Walker Sands, 2018).

In order to evaluate the changes in consumer preferences, we have examined the differences between various generations and indirectly evaluated the upcoming changes. The individuals were grouped into various generations based on their age: ***Generation X*** (38 – 51 years, n = 46), ***Generation Y*** (23 – 37 years, n = 140), and ***Generation Z*** (15 – 22 years, n = 27).

Figure 5. Importance of different factors when making a purchase (either in a brick-and-mortar store or online)



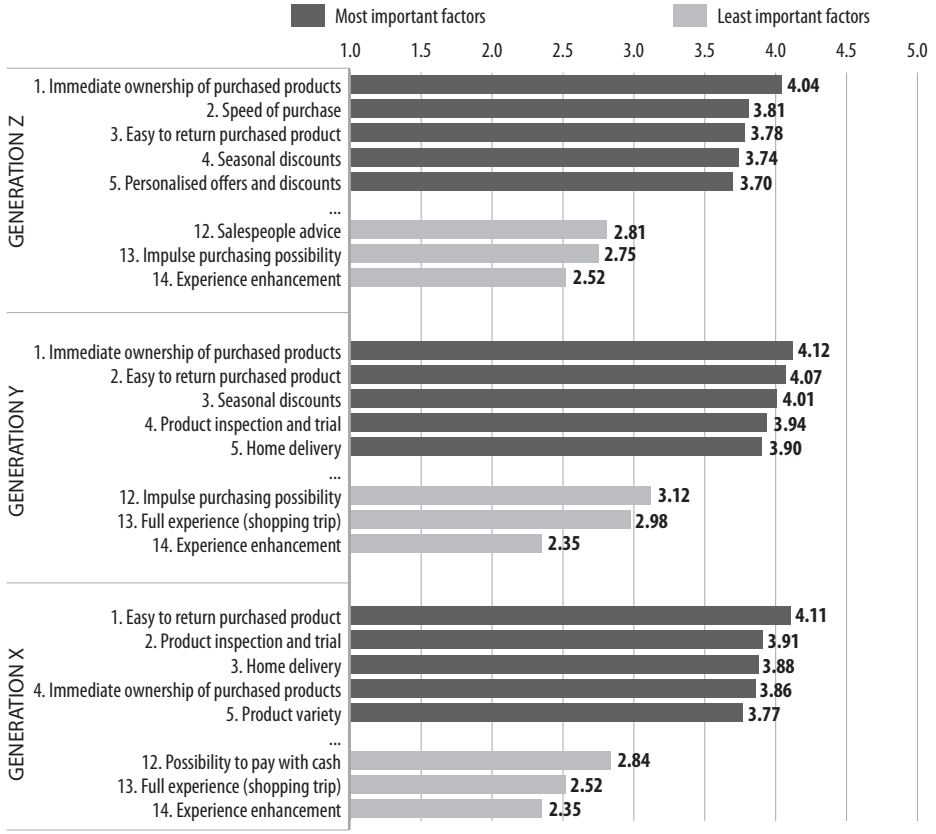
Notes: 1 = not important at all, 5 = very important; numbers represent mean values of answers.

Source: Own Research, 2018, n=432.

Figure 5 shows the importance of different factors for Generations X, Y and Z when they are considering making any purchase – whether in a brick-and-mortar store or online.

Transaction safety, attractive price, diverse offer, and information availability are all present in the top 5 of each of the three generations, however, the importance of the latter two is slowly descending among younger, digitally more skilled generations. Accordingly, the pace of the shopping experience is getting more important for the new, highly mobile Generation Z. Salesperson's advice, on the other hand, seems least important for Generation Z, but shopping with family and friends ranks higher if compared with older generations.

Figure 6. Importance of different factors in brick-and-mortar stores



Notes: 1 = not important at all, 5 = very important; numbers represent mean values of answers.

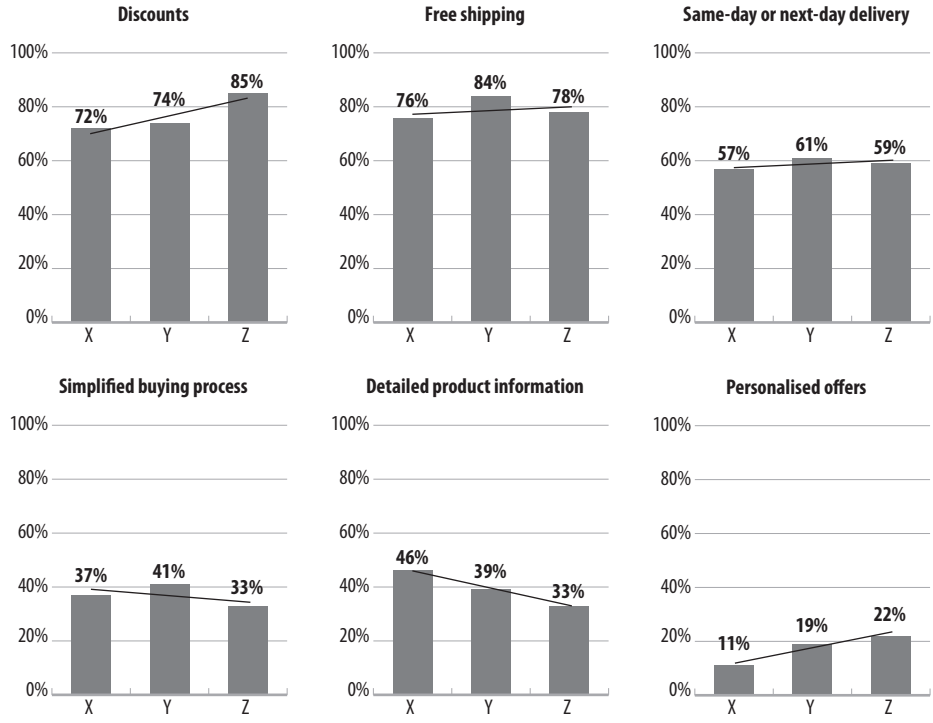
Source: Own Research, 2018, n=432.

Similarly, Figure 6 shows the importance of different factors for Generations X, Y and Z when purchasing in ***brick-and-mortar*** stores. The high importance of the ease of returning a product and immediate ownership shows that after years of optimizing the online shopping experience, factors regarding the delivery are still the main concern, especially for Generation X and may remain so in the following years. Physical inspection of the product seems to be less of a priority for the new generation, as pace of the shopping process and high personalization is what they really look for. Pricing and seasonal discounts are highly appreciated by Generations Y and Z, but not so much by Generation X. When looking at the least important factors it can be seen that, as opposed to the general assumption, the enhanced experience with mobile phone connectivity is not what the consumers are missing, even the Generation Z. Experi-

ence enhancement is the least important factor when considering a purchasing process at brick-and mortar stores for all three generations.

Figure 7 presents the frequency of a specific factor being chosen as a factor that would convince an individual to make more online purchases. After examining the changes between the generations, what can be observed is that their priorities are mutual and the order of the factor importance is barely different – discounts and shipping are the most favourite factors for all three generations. However, some interesting trends can be observed regarding specific factors. The importance of discounts, as well as the importance of personalised offers, both show a positive trend, which can suggest that the new generations tend to be more attentive to attractive offers, especially when they are personalised. The importance of detailed product information – which also includes presence of ratings and reviews – is declining among younger generations, indicating that digital natives have less problems of finding the wanted information by themselves and do not rely on the retailer to do the research for them.

Figure 7. Factors that would convince consumers to make more online purchases



Source: Own Research, 2018, n=432.

Conclusion

The aim of this chapter was to provide insights into the current state and the future of retail. Retailers are facing an uncertain future and are under the influence of several changes – from technological to operational ones. While innovation and technological trends disrupt modern business models, particularly within the retail industry, the ones aimed towards success shall accommodate these trends and force them to serve their business models through continuous upgrade processes. Ignorance towards these might cost businesses a competitive position within the dynamic market environment. Based on the review of literature and survey results we propose some recommendations for both types of retailers.

Our recommendation to brick-and-mortar retailers would be to observe the showrooming trends, even though the number of people currently doing showrooming is smaller. Brick-and-mortar retailers should therefore stimulate buyers through instant offers (e.g. discounts) and other measures to assure they terminate the shopping process in the store. The click-and-mortar business model might be a sound solution to meet the customers' needs but should seriously consider offer and discount personalization. The importance of this factor is increasing among the new generations and this feature is more difficult to be applied in brick-and-mortar stores.

Immediate product ownership, quick shopping process and fast delivery were shown to be the most important shopping factors among all respondents. As consumers, more than ever before, demand their products now, online retailers need to recheck their distribution channels and improve them if possible. Collection points, free shipping, next-day delivery and uninterrupted shopping experiences are slowly but surely becoming benchmarks. Moreover, cybersecurity should be a priority and subject of investment and development, as digital evolution is in a rapid development phase.

Identifying the opportunities for possible synergies and implied collaboration with other businesses should assist the today's enterprises, regardless of their physical, digital or combined nature in enhancement of their core competences and stimulate generation of value added to the customer and in economic terms.

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VI.

BROADER SOCIAL ISSUES AND POLICY PROPOSALS

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THE IMPACT OF E-COMMERCE ON SOCIETY

Introduction

As the Internet ecosystem evolves both technologically and in the number of users, it is becoming easier for countries, companies and individuals to participate in the Internet economy (Economics and Impacts of E-commerce, 2018). The growth of Internet users has created an environment for e-commerce to thrive, but imposed a painful profit squeeze on big-box retailers, resulting in layoffs, store closings, mall reconfigurations, and even bankruptcies (Braddock, 2018).

The purpose of this chapter is to study the impact of e-commerce on the welfare of the society at large, by focusing on the impacts on the consumers, companies and economies, and providing a comprehensive evaluation of the broader impacts of the new Internet economy.

This chapter comprises of three parts. The first part discusses the impact of e-commerce on GDP, economic structure, labour markets and international trade. Then the impact of e-commerce on business models and strategies is addressed, followed by the study of the advantages and disadvantages of e-commerce for the consumers' well-being.

1 Macroeconomic impacts of e-commerce

E-commerce is driven by the developments in the social networks and digital (or Internet) economy, and determined by the corresponding characteristics such as globalization, digitization, disruptive innovation and transformation of information into commodity (Turban et al., 2018). On the one hand, it benefits

the economies and international trade, while on the other hand, it creates pressure in labour markets and redefines the skills of the workforce (Table 1).

Table 1. Benefits and dangers of E-commerce on societal and economic development, economic structure, flow of capital, labour markets and trade

Benefits	Dangers / risks
Reduces price margins	Money contribution to local economy
Stimulates GDP growth	
Increases customer consumption and online sales	
Stimulates investments	Higher investments in business development
Accelerates innovation	Shifting labour skills
Increases international trade	Supply chain management and logistics
Cross-border e-commerce reduces trade costs	Causes dismissals
Increases wages and create jobs	Loss of jobs
Reduces income inequality	Large differences in wages / increases poverty

Sources: Willis, 2004; Qu and Chen, 2014; Zhao, 2015; Martceh Today,2015; Cardona et al., 2015; Kim et al., 2017; ECLAC, 2002; McKinsey Global Institute, 2011; Progressive Policy Institute, 2017; Bram and Gortan, 2017; OECD, 2014; Wesley and Peterson, 2017.

E-commerce stimulates GDP growth and parameters like employment and the number of Internet users. E-commerce enterprises and online shopping users have a positive correlation with GDP (Qu and Chen, 2014). Evidence show that an increase in online sales by 1 percent boosts the GDP per capita by 0.04 percent (Zandi et al., 2016). E-commerce provides a variety of products that meet consumers' material and cultural needs, which results in an ***increase in customer consumption and online sales*** (Zhao, 2015). Spending on e-commerce systems, purchasing new and upgrading the existing technology induces the rise in the overall expenditures and has a positive impact on economic growth (Martech Today, 2015).

The increase in e-commerce usage is also associated with the ***increase in international trade*** as a result of reducing the costs of finding the right supplier, specifying the product's quality and quantity, negotiating the price and arranging deliveries (ECLAC, 2002).

Cross-border e-commerce reduces trade costs compared to offline trade and has an overall positive effect on the economy from the societal welfare perspective. E-commerce boosts household consumption by 1.07 percent, of which 0.27 percent comes from the trade cost effect and the remainder from efficiency gains in distribution (Cardona et al., 2015). Consumers are buying more from abroad: every seventh online purchase was conducted as a cross-border transaction. The cross-border market is expected to grow by 25 percent annually by 2020, accounting for about USD 900 billion gross merchandise value, which is roughly a 22

percent share of the global e-commerce market and represents an enormous opportunity for retailers and manufacturers (DHL, 2016). The customers that shift from brick-and-mortar stores to cross-border e-commerce contribute to the decrease in domestic expenditure and increase in imports. This could potentially put pressure on brick-and mortar stores to ***reduce its price margins*** in order to become more competitive (Cardona, 2015). But cross-border e-commerce has several barriers, such as unreliable and lengthy transit time, complex returning processes, limited transparency on delivery and barriers related to customer trust (Kim et al., 2017).

Table 2 presents the overall impact of e-commerce on GDP compared to the baseline hypothetical scenario without e-commerce and compares impacts across countries. For all the observed countries, e-commerce boosts GDP by 0.14 percent, however, on average larger economies benefit more from this trade opening (Cardona et al., 2015).

Table 2. Macro-economic impact of e-commerce to GDP growth in percentage in selected EU economies

Countries	GDP impact from trade cost only (in %)	Total GDP impact (in %)	Share in EU GDP (in %)	GDP growth (in %)
United Kingdom	0.11	0.25	14.6	14.16
Slovenia	0.43	0.23	0.3	3.35
Spain	0.12	0.22	7.9	4.1
Austria	0.27	0.18	2.4	3.43
Germany	0.11	0.15	21	3.75
Italy	0.13	0.13	12	1.9
Czech Republic	0.69	0.04	1.1	7.54
Lithuania	0.30	0.03	0.3	2.34
Romania	0.12	0.01	1.1	6.54

Source: Cardona et al., 2015.

E-commerce has rationalized ***logistics and supply chain management.*** For instance, AliExpress has established a variety of collaborative models by developing diversified logistics, which provides the company all possible logistics options that help businesses to choose the most suitable ones (Yang, 2017).

The retailer in e-commerce is becoming an intermediary before the goods or services reach the final consumers, which is crucial for time and organizational management (Gomez-Herrera et al., 2014). For example, Amazon Locker System offers a place in convenience and grocery stores for customers to pick up the pack-

ages they have ordered. Recently, the company has started to open retail locations designed for picking up and returning the items for free (Business Insider, 2018).

As global markets become more saturated with companies, the ***innovation cycle*** is becoming ***shorter*** and companies ***invest more in business development.*** In the long term, it may have long term dynamic effects, such as ***shifting labour skills*** towards creative disruption and changing the quality and quantity of employees (Willis, 2004; McKinsey Global Institute, 2011). E-commerce ***creates new jobs and at the same time causes loss of jobs.*** According to Progressive Policy Institute (2017) research, focusing on the period from 2007 to 2017, the e-commerce sector in the U.S. created 400,000 new jobs while 51,000 jobs were lost in the brick-and-mortar industry over the same time period. For example, in 2017 Amazon hired 50,000 people at its fulfilment centres across the U.S. to work on positions such as packing, sorting and customer service and announced its plans to add more than 100,000 full-time jobs during 2018 and the first half of 2019 (CNN, 2017). Labour market restructuring is a consequence of the e-commerce business model and changes in the customer online purchase journey. All the tasks that were once reserved for customer, such as transportation, product search, bringing the product to the cashier, the payment of the product and returning the unwanted items are shifted towards the warehouse employees (PYMNTS, 2017).

Progressive Policy Institute (2017) also claims that the shift to ***e-commerce improves wages*** paid to high school graduates and therefore ***reduces the income inequality.*** For example, production and nonsupervisory workers in the e-commerce sector earn on average USD 18.07 per hour compared to USD 14.16 per hour in brick-and-mortar stores (Progressive Policy Institute, 2017). Between years 2012 and 2016, the annual average wage in the e-commerce sector increased by approximately 18 percent, while in brick-and-mortar there were no significant changes (Bram and Gortan, 2017). The ***differences in wages*** partly reflect (a) the fact that some jobs in brick-and-mortar are part-time, and (b) the differences between the skills needed for the two job categories (Bram and Gortan, 2017). Moreover, wage returns to ICT skills are twice as large compared to management and communication skills, and are continuously increasing (Grundke et al., 2018). For example, the wages of technology professionals in China are estimated to rise by 12-18 percent by the end of 2018 (Walters, 2018).

The illustrated wide spread of wages leads to an ***increase in income inequality,*** endangering growth and increasing poverty (Wesley and Peterson, 2017). The OECD (2014) found that a rising income inequality by three Gini points would lower the economic growth by 0.35 percentage points per year

until 2039 and result in an accumulated loss in GDP by 8.5 percent at the end of the period. Moreover, income inequality reduces education opportunities, social mobility and skills development (OECD, 2014).

The impact of e-commerce on local community is less significant than in the case of brick-and-mortar stores. Purchases in the brick-and-mortar stores tend to improve the local economy in the following key areas: local employment, local tax income, political advantages and loyal customers (Carranza, 2017). In e-commerce chains, recirculation of money within the local economy is close to zero. In fact, online stores with no local warehouse contribute around one percent recirculation of each dollar spent in the local economy, while brick-and-mortar stores provide recirculation close to 33 percent (B.C. Buy Local, 2015).

Potential benefits for (developing) countries, companies and consumers include greater efficiencies, deeper socialization and division of labour, greater gains from variety and predictability for all players, lower costs and prices of inputs and final products. To achieve such gains, the support of trade and investments in ICT infrastructure should be complemented by suitable regulations and institutions, and support for skills development (UNCTAD, 2018).

2 Impacts of –e-commerce on companies and industries

Emerging technologies are constantly pushing businesses to rethink their strategic business models, processes and relationships (Economics and Impacts of E-commerce, 2018). The effects of digital revolution are yet to be seen, as the Internet disrupts traditional businesses leading to "all sorts of industries and walks of life" (Jack Ma in Oxford Martin School and Citi, 2017, p.3). Companies can benefit from the advantages of e-commerce because of cost reductions and increased productivity. However, there are also disadvantages to consider (Table 3).

Traditional businesses that want to incorporate e-commerce in their business model may incur ***high switching costs*** in order to benefit from the new channels for promotion and distribution of their products (B.C. Buy Local, 2015; Duch-Brown et al., 2015). But even if the need for physical stores may be decreasing, which would cause inventory and labour costs to decrease, companies have to invest more in ***infrastructure and warehousing facilities.*** Online business models need 300 percent more warehousing space compared to store-based fulfilment, and by 2035, over 213 square meters of new warehousing space will be required (Oxford Martin School and Citi, 2017). Apart from the costs of shipping

and managing inventory, the initial investment in setting up a digital presence consists of ***costs of service providers, fees for digital tools and applications, transaction fees and time investment*** (B.C. Buy Local, 2015).

Table 3. The benefits and dangers or risks of e-commerce for companies

Benefits	Dangers / risks
Better promotions and distribution	High switching costs
Lower inventory and labour costs	Investments in infrastructure and warehousing facilities
Establishes digital presence	Costs of service providers, fees for digital tools and applications, transaction fees and time investment
Breakthrough innovation	Cost pressure and risks
New products, services and business models	Facilitating innovation, cost pressure and risk
Virtual teams and collaborative online work	Productivity of workers
Increases revenue and lower end-consumer prices	Shipping and handling charges
Productivity gains	Financial loses and negative operating profits, lower prices and degraded service quality

Sources: Duch-Brown et al., 2015.; B.C. Buy Local, 2015.; Oxford Martin School and Citi, 2017; Turban et al., 2018; Oliva et al., 2003.; PWC, 2015.; Kacen et al., 2013.

E-commerce is the driver of ***strategic and structural changes***, and to survive, companies have to learn and adapt quickly to the new technologies by experimenting with new products, services and business models (Economics and Impacts of E-commerce, 2018). Such ***constant innovation*** requires from companies the implementation of unique business models and environment that would facilitate innovation in order to stay competitive, and brings the ***pressure on costs*** (Turban et al, 2018; Steinfield et al., 1999). "Companies have begun spending less on incremental innovation and ***allocating more of their declining research and development budgets to breakthrough innovation***" (PWC, 2015, p. 5). ***Innovation carries substantial risks*** and requires that companies develop unique capabilities to manage the risks, reduce product costs, drive growth, and expand margins (PWC, 2015).

Terzi (2011) developed an index of Internet intensiveness by weighing the effect of cost savings, increases in productivity, industry readiness and product fitness to e-commerce. The most Internet intensive sectors and industries in the EU and USA that will be affected by e-commerce are electronic components, food, pharmaceuticals and forest/paper products (Terzi, 2011). E-commerce, as the main ***driver of automation,*** will also shape ***future jobs and specific industries***. Sixty-four percent of jobs in sales and 80 percent of jobs in t***ransportation, warehousing*** and ***logistics*** are likely to be ***influenced by automation***,

especially the ***retail industry*** that will face a downfall trend of employment, which will affect every city and region (Oxford Martin School and Citi, 2017).

Another aspect is the organizational structure, where e-commerce brought the opportunity to create ***"virtual teams"*** (Economics and Impacts of E-commerce, 2018) and f***oster remote and collaborative online work*** where the importance of distance is reduced and people can work from home, which can improve productivity (Konsbruck, 2008; Bertschek et al., 2004).

The ***costs of information processing, storage and distribution are lower*** since many of the goods and services can be produced anywhere and either delivered electronically or physically to consumers (Turban et al., 2018).

Exchange-refund policy, shipping and handling charges, put a pressure on online stores to lower their prices in order to gain competitive advantage over traditional stores (Kacen et al., 2013). Authors have contrasting opinions on the impact of e-commerce on brick-and mortar stores. On the one hand, Oliva et al. (2003) explain that rapid growth and low prices can make companies suffer from degraded service quality, ***financial losses and negative operating profits***. On the other hand, Turban et al. (2018) indicate that e-commerce imposes pressure on retail companies to ***provide a better service*** to their customers and ***gain an improved brand image.***

3 The impact of e-commerce on the consumers

The adoption of the Internet has brought many benefits but also introduced new dangers for the consumers (Table 4).

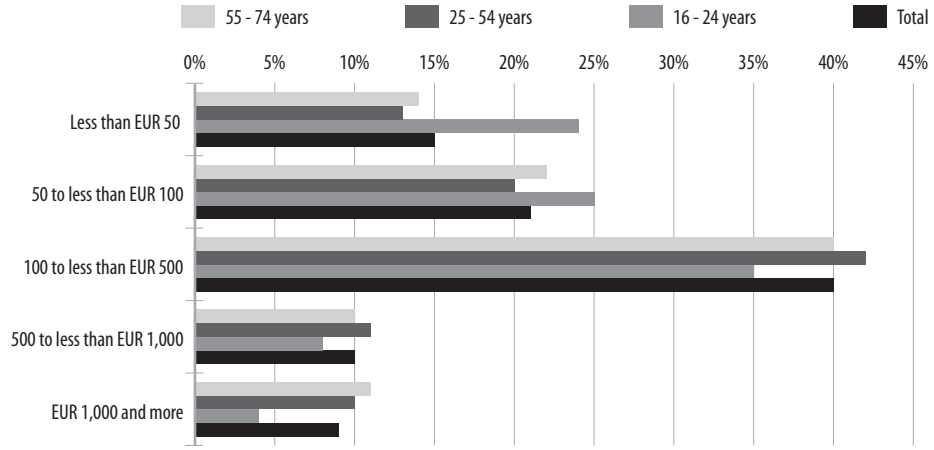
Table 4. E-commerce and consumers: Benefits and dangers

Benefits	Dangers / risks
Accessibility and availability	Lack of social interaction
Distance is irrelevant	Trial not possible
Reduces search costs	Vulnerable to fraud
	Lack of trust
	Intellectual rights and privacy issues
Quick price comparison	Additional cost of returning the order
More informed consumers	Sheer amount of information
	Vulnerable to addiction

Source: Konsbruck, 2008; Duch-Brown et al., 2015; Steinfield et al., 1999; Economics and Impacts of E-commerce, 2018; Rose and Dhandayudham 2014.

E-commerce represents a distribution channel (Duch-Brown et al., 2015), enabling 24/7 ***accessibility and availability*** of products from different vendors (Konsbruck, 2008) to both companies and consumers. In 2017, more than 1.77 billion people purchased consumer goods via e-commerce and roughly 45 percent of all internet users use e-commerce sites (We Are Social, 2018). Four out of ten consumers spent EUR 100–499 (Figure 1), creating an e-commerce market of 1.47 trillion USD (We Are Social, 2018).

Figure 1. Money spent on online purchases in EU-28 in 2017 (percent of individuals who bought or ordered goods online in the previous 3 months)



Source: Eurostat, 2017.

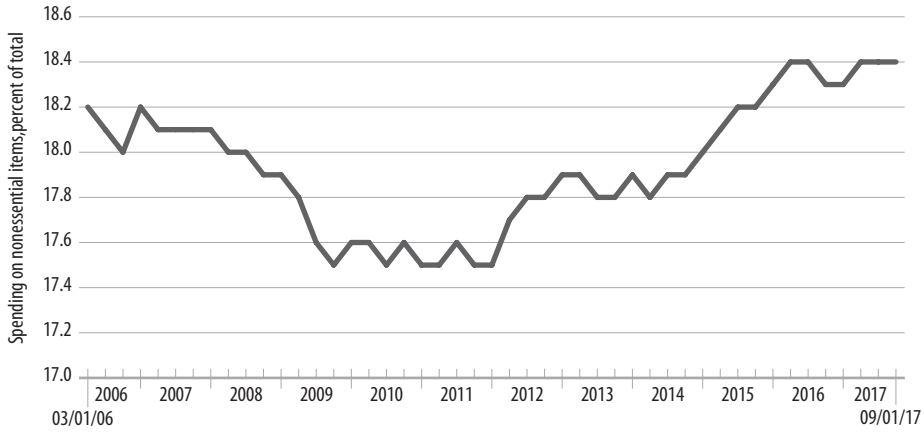
However, a lot of this spending (18.5 percent in the U.S. in the third quarter of 2017) is nonessential (Figure 2) since advertising encourages the consumers to buy goods that they do not need (Bloomberg, 2017).

The society is ***vulnerable to addiction*** at the stage when a new substance or behavioural activity is first introduced into the culture. Emotional instability and materialism have a positive effect upon Internet addiction which influences impulsive online buying. Due to the lack of rational and economic consideration, some consumers could potentially run into financial problems. Here the question arises whether the Internet addictions actually do exist or is the Internet just the medium through which pre-existing addictive behaviour is carried out (Rose and Dhandayudham, 2014).

E-commerce has made ***distance irrelevant*** and enabled customers to search for and locate products that match their desired features and prices (Steinfield

et al., 1999). The Internet contributed to the existence of ***better informed consumers*** who are more likely to find a product that matches their preferences (Duch-Brown et al., 2015). Consumers are more empowered to make a purchase decision due to the availability of information, product reviews and evaluations (Hecker, 2001). Consumers see online review sites as accurate and trustworthy as personal recommendations (Menfors and Fernstedt, 2015), and in the U.S. about 26 percent of the adult Internet users (approximately 33 million people) have already rated a product, service, or person by using an online rating system (Ecommerce Europe, 2017). In 2017, every second consumer searched the Internet for reviews and recommendations (Ecommerce Europe, 2017).

Figure 2. Spending on nonessential items, as percent of total U.S. consumer spending (2006-2017)



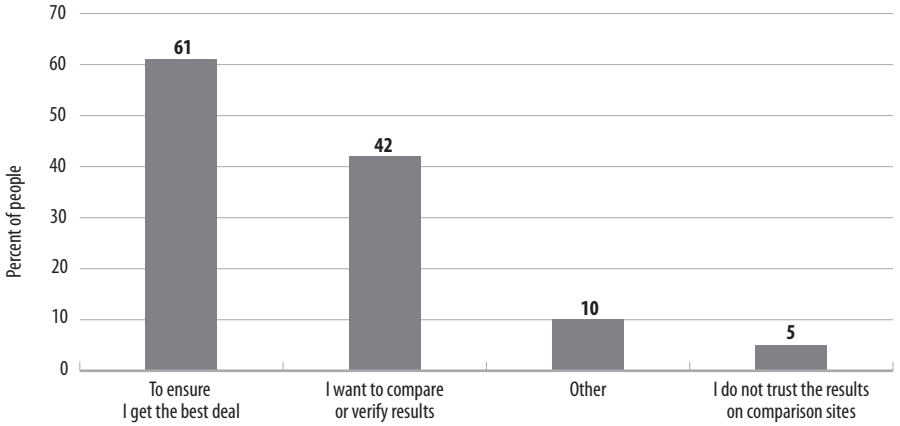
Source: Bloomberg, 2017.

Purchasing through e-commerce reduces the product or service ***search costs*** (Konsbruck, 2008), but on the other hand, it can also increase it. In 2009, close to 35 percent of the respondents of a survey done in Turkey said they read between 4 and 7 reviews before purchasing an electronic good product (Yayli and Bayram, 2009), which certainly takes a portion of time, and results in an increase of search costs.

In addition to product reviews, consumers can perform a ***quick price comparison*** (Economics and Impacts of E-commerce, 2018) by using search engines and price comparison sites (European Commission, 2017), such as Ceneje.si or Pricegrabber.com. The majority of consumers (83 percent) use price comparison sites (RS Consulting, 2013) and 57 percent use two or three of them before

making a purchase decision. Around 17 percent of consumers use four to five price comparison sites before making a decision and around 9 percent use more than five, which also raises the search costs. For the majority of the consumers, the main reason for using multiple price-comparison sites is to ensure they get the best deal (Figure 3).

Figure 3. Reasons for examining multiple price comparison websites

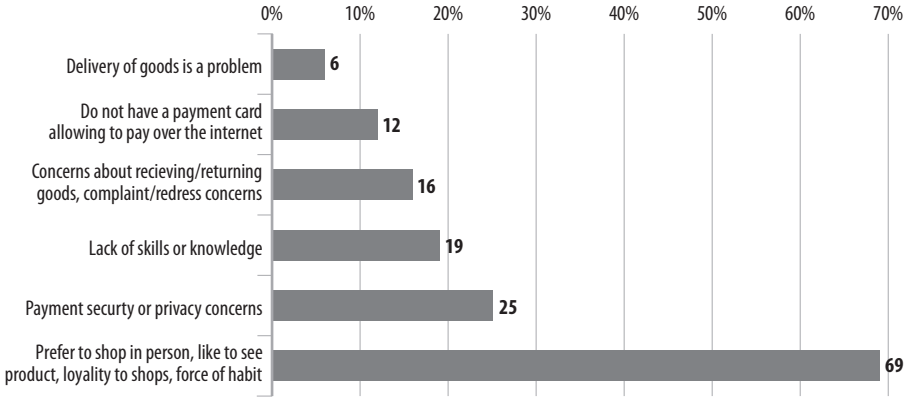


*Sample: 815 – All respondents who looked at more than one price comparison website before making a decision. Source: RS Consulting, 2013.

A lack of physical clues makes e-commerce vulnerable to ***fraud*** (Konsbruck, 2008) and the cost of fraud represents an increasing and widespread trend. As portrayed below (Figure 4), payment security and privacy concerns are the second most common reason why consumers do not make an online purchase.

Forrester (2018) states that the most common type of fraud is account take-over – unauthorized access and control of another user's personal information online. It takes place every three seconds in the United States alone and it represents nearly 40 percent of e-commerce fraud (Leyde, 2014). Even though information can be easily distributed and duplicated, there is also a challenge when it comes to regulations with regards to ***intellectual rights and privacy issues*** (Konsbruck, 2008). Recently, a step has been taken with regards to privacy concerns. The right to data portability is one of the novelties within the EU General Data Protection Regulation (Hert et al., 2018). A person has to give consent to the use of their data, and the consent has to be obtained in the way that is understandable and accessible (Cornock, 2018).

Figure 4. Percent of respondents choosing a specific reason for not making an online purchase in the previous 12 months in the EU28 in 2017



Note: multiple answers were available for choosing. Source: Eurostat, 2017.

However, the variety of products available and the ***sheer amount of the information*** on the Internet may leave consumers lost while choosing the product (Konsbruck, 2008). Regardless of all the available information, the ***lack of trust*** in e-commerce is mainly caused by the impossibility of ***product testing*** which potentially increases the chances of wrong orders and raises the costs of returns (Steinfield et al., 1999). The ***lack of social interaction*** (Steinfield et al., 1999) certainly contributes to the issue of trust. This was also confirmed in the Eurostat survey (2018), where the majority of respondents who do not shop online do so because of their preference to personal contact (Figure 4).

Conclusion

E-commerce has an impact on consumers, companies and economies. Therefore, it affects a significant portion of the world. The new business models provide an option of buying and selling over the Internet, affecting electronic innovation, communication, collaboration and information search. E-commerce enables companies to, regardless of their size, participate in the global trade flows and compete. Companies do not have to invest in physical facilities; however, if they want to become digital, they have to pay the costs of service providers, various fees and knowledgeable personnel. The environment of constant innovation increases competitiveness of different industries and makes the

global economy more dynamic, yet it imposes certain cost pressure and risk on companies. The societal well-being has also been impacted by the e-commerce changes. On the one hand, consumers can enjoy accessibility, availability and quick price comparison to ensure the best deal, while on the other hand, some consumers are resistant to use e-commerce because of the lack of physical contact, interpersonal communication with shop assistants and security concerns. To address these problems, e-companies are integrating their online and offline channels to meet customers' needs better. Lastly, even though e-commerce used to be considered as a threat to jobs, it nowadays generates many jobs and creates a new workforce with a different set of skills.

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CREATING SUPPORTIVE DIGITAL ENVIRONMENT TO PROMOTE INNOVATION, INCREASE VALUE ADDED CREATION AND STIMULATE GROWTH

Introduction

E-commerce has in recent years significantly impacted the way customers, both B2B and B2C, shop. E-commerce changed customers' behaviour in both stages of shopping – the decision-making as well as the actual purchase. "The traditional consumer journey was originally a three-stage model, comprising a stimulus, the first moment of truth (possible purchasing help), and the second moment of truth (experience). Today, consumers are digital explorers…" (Torben, 2013), who extensively use online content (reviews, descriptions, even movies) when making their purchasing decisions. While the first part primarily impacts the B2C market, both B2C market and B2C are changing due to "buying on the web" (Harrisson-Boudreau, 2017). For example, in the US up to 10 percent of retail sales are done on-line and the share has been increasing fast, by up to 15 percent yearly (Harrisson-Boudreau, 2017). The rise of e-commerce accompanied by the digital transformation and other technologies of Industry 4.0 is a Schumpeterian process of creative destruction, which causes disruptions in the economic structure, changes the comparative importance of different (services) sectors, impacts the patterns of employment and value creation, the structure of (global) value chains, patterns of international trade, as well as economic growth (European Commission, 2015; Koh et al., 2017; Ceraolo and Dolega, 2016).

To promote further development (technological, economic and social), but at the same time trying to avoid possible negative consequences, regulatory and policy support is extremely important. While social issues have already been addressed, the purpose of this chapter is to highlight the existing and planned regulatory and policy changes that promote further technological developments, primarily digitalization, and also their broad implementation and use.

To do so, we first discuss digitalization and e-commerce in the broader context of Industry 4.0 and also present the current level of readiness and the use of certain technologies. Next, the EU plans and policies in the fields related to the supporting digitalization and technological development, from technology to education and skills development, are discussed.

1 Industry 4.0, digitalization and the role of e-commerce

The rise of computers, Internet 2.0 and primarily new technologies, which are today embraced under the term Industry 4.0, have significantly changed practically all aspects of our lives. Technology has historically been shown as the major driver of productivity growth, economic growth and consequently also the source of improvement in living standards. But to be able to develop, use and implement new technologies, societies must have the required capacities.

1.1 Digitalization, Industry 4.0, e-commerce and economic growth

Technology has long been one of the major sources of economic growth. Up to a third of growth remains unexplained in growth decompositions and has been systematically attributed to technological impacts. For example, during the fast development of the consumer society in the US, 1.9 p.p. out of 2.9 percent growth was attributed to total factor productivity (TFP) growth. The massive effects, for example of the Second Industrial Revolution during the first half of the 20th century, contributed to over 5 percent growth in manufacturing (Field, 2007). In the 2000s, the main source of TFP growth was IT and it contributed about 1.5 p.p. to the overall growth (Shackleton, 2013) , which was between 1 and 3.8 percent (excluding 2.8 percent downturn in 2008) in 2000 and 2017 in the USA (Statista, 2018). This indicates a significant contribution of technology to the overall economic performance.

The impacts of the Fourth Industrial Revolution on economic growth are yet to be observed in full scale, but the historical experiences show that the wide-spread use of ICT, digital technologies, and a number of other Industry 4.0 technologies, such as robots, artificial intelligence, augmented and virtual reality, the Internet of Things and the Industrial Internet of Things, platforms, and many others, will significantly impact both the nature of processes in manufacturing and services, as well as the sectoral structure of the economy (Prašnikar et al., 2017). The selected estimates show that productivity in manufacturing could increase between 5 to 8 percent, but due to sectoral variations, productivity gains could reach up to even 30 percent (Rüßmann et al., 2015). For developed economies, which are facing increasing competition in the global markets, implementing technologies with such marked productivity increase potential is crucial in order to sustain long-term development and promote growth.

Digitization has a significant impact on the development of e-commerce. E-commerce is at the moment still a minor part of total retail. In 2017, it was around 13 percent in the US and 18 in the UK. However, at the worldwide level the number of digital buyers is continuously growing; in 2016 the growth was 10.4 percent, a year later only a percentage point less. It is expected that at the global level the number of digital buyers will continue to growth above 5 percent till 2020. Retail e-commerce is expected to grow in volume at the global level by around 20 percent until 2020 (Chaffey, 2018). Due to the uneven distribution of e-commerce, it is expected that the growth of e-commerce will continue to be intense in the developed economies.

E-commerce is currently dominated by few big players, diversifying into several sectors of economy and growing with significant pace. Amazon, one of the first major global e-commerce players, is responsible for over 35 percent of global e-commerce and is expected to grow even further to 50 percent (Lui, 2018). To remain competitive, companies will have to follow the global retail trends, which rely heavily on the new trends in e-commerce. The literature lists several trends. The first is digitalization. Digitalization will first impact not only e-commerce but both e-commerce and brick-and-mortar stores. The existing traditional retail channels are being transformed and in the future an increased use of digital support to enhance consumer experience is expected. For example, a combination of showrooming and webrooming is going to be more frequent. It is also expected that the division between e-commerce and traditional brick-and-mortar shops will be more blurred than today, primarily due to omni-channel retailing and the on-line to off-line (O2O) or click-and-mortar trend (ShopifyPlus, 2018). Over 80 percent of retail will in 2020 still be

conducted in a traditional manner and the O2O trend will blur the division between the two, but at the same time provide shoppers with the digital experience before, during and after the shopping, which is what they expect (Harrisson-Boudreau, 2017). B2B is expected to change, primarily to offer functionalities similar to B2C, both from the perspective of purchasing and ordering experience as well as being on-line and mobile. New Industry 4.0 technologies are expected to become blended with e-commerce, offering better pre-shopping experience as well as increase efficiency of the shopping process.

Mobile technologies will increase efficiency of traditional shopping. Example of this trends are mobile check-out, brick-and-mortar stores with no personnel, such as the Amazon Go store (Amazon, 2018). Also new technologies such as virtual and augmented reality, machine learning and big-data analysis will change the traditional approach to shopping. For example, Carrefour introduced "beacons", which are small communication devices that communicate with shoppers via a mobile app and enhance the shopping experience. Greetings, personalized advertising in the store, personalized coupons and the advantage of digital personalized marketing in the proximity of products have led to a soaring number of users (Onyx Beacon, 2015). Technology is expected to help shoppers obtain better information about products in-store as well as locating them more easily (or deciding where to buy), primarily also using photo-search and voice technologies (Harrisson-Boudreau, 2017). These and other trends will also lead to the "re-birth" of brick-and-mortar stores (Lui, 2018).

In order to be able to succeed and keep pace in the fast changing world, where not only the actual efficiency and performance of technologies but also consumer acceptance of technologies is far from certain, companies must continuously invest, while countries must build and invest in the infrastructure (in the broadest sense), which is a prerequisite for the companies to develop. In the following section, we first present the existing digital readiness data and the use of e-commerce and related technologies in the EU to provide insights for policy discussion.

Digital transformation has contributed to a range of e-commerce players that have emerged in the recent years, offering new payment solutions, e-commerce platforms and innovative logistics. As shown in the previous chapters of this book, the retail industry is the example of industry that has been under a tremendous pressure. The most evident case of disruption in the industry, Amazon, currently offers more than 500 million products and in-home delivery within two hours. If customers in the B2C market used to come to stores to get infor-

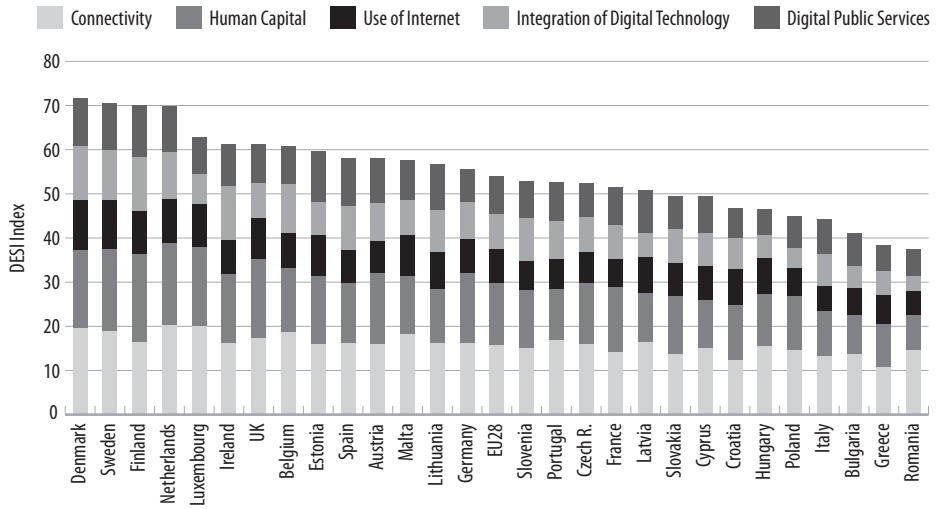
mation about products and prices, physical retail has now lost that monopoly as shoppers come into stores well-informed. It has to offer something else instead. Countries should deepen their understanding of the interface of trade logistics, digitalization and e-commerce. New technologies may help overcome logistical bottlenecks; for example, they can help navigate traffic by calculating the fastest routes or identifying the most fuel- and time-efficient pick-ups. International Post Corporation (2018) conducted a survey of cross-border shopping behavior, identifying the most important delivery elements being "clear information about delivery charges", "simple and reliable return process" and "free delivery". Based on 31 markets surveyed, Amazon, eBay and Alibaba accounted for 56 percent of the most recent cross-border e-commerce. A recent research by International Trade Center and AliResearch (ITC, 2018) reports that online and offline trades share similarities in terms of the main products and markets, whereas e-commerce focuses on higher value-added and innovative products and offers opportunities to expand and diversify export. MSMEs that use online platforms are around five times more likely to export than those in the traditional economy.

1.2 Digital readiness and the use of new technologies in the EU

Enabling a digital environment in many countries remains deficient and disables translating the benefits of new technologies into tangible and inclusive trade and growth opportunities. Moreover, poor infrastructure and a lack of economies of scale, due to fragmented cross-border markets, substantially affect the ability of micro, small and medium-sized enterprises to participate in digital market places and global value chains. The European Union monitors the digital readiness and state of development of its economies using the DESI indicator[1] ("The Digital Economy and Society Index (DESI)," 2018). DESI summarises countries' digital performance and monitors progress in digital competitiveness. The index studies the following aspects: connectivity development, human capital development, the use of Internet Services and digital public services. Data (Figure 1) shows that digital readiness and the use of new technologies are most intense in Northern Europe, while the Mediterranean economies and the new EU members are mostly ranked below the EU average, with some exceptions, like Estonia, Spain, Malta and Lithuania.

1 DESI indicator monitors the following: (1) Connectivity development: Fixed broadband, mobile broadband, broadband speed and prices, (2) Human Capital development and presence of skills: Internet use, basic and advanced digital skills, (3) Use of Internet Services in the country: Citizens' use of content, communication and online transactions, (4) Integration of Digital Technology: Business digitisation and e-commerce, (5) Digital Public Services: eGovernment (European Commission, 2018i).

Figure 1. DESI Index in the European Union countries, 2017



Source: European Commission, 2018a.

In the EU, both EU15 and EU28, almost 100 percent of companies have Internet access and use computers (Table 1). Only three percent of all enterprises (five percent in EU28 on average) report that their internet connection is not fast enough. Almost 70 percent of companies use mobile broadband connections in the EU15, whereas this share is over 90 percent among the large companies in both EU15 and EU28. Companies also use mobile Internet. Around 80 percent of companies have their own websites and over 40 percent use also social media. Websites are mostly used to build corporate image and communicate with customers.

The use of ICT and advanced technologies (including Industry 4.0) is still rather weak overall (although the situation is significantly different in large companies) and many of the functions are outsourced directly to ICT companies – 50 percent of companies outsource ICT functions, even more in maintenance (Table 2). Interestingly, 95 percent of companies report difficulties in finding ICT specialists, which could also explain the relatively low use in primarily smaller companies as well as outsourcing.

Table 1. Infrastructural characteristics in the EU in 2016 and 2017 (where stated)

	EU28 (percent of all enterprises)
Enterprises with Internet access	97
The speed of the fixed Internet connection is sufficient for the actual needs of the enterprise (2017)	77
Enterprises connecting to the Internet via a mobile broadband connection (3G modem or 3G handset)	67
Enterprises having a website	77
Enterprises with a website providing product catalogues or price lists	56
Enterprises with a website providing advertisement of open job positions or online job application	27
Enterprises with a website providing online ordering or reservation or booking, e.g. shopping cart	18
Enterprises with a website providing online order tracking	8
Use of social networks (e.g. Facebook, LinkedIn, Xing, Viadeo, Yammer, etc. as of 2014)	42
Use of the enterprise's blog or microblogs (e.g. Twitter, Present.ly, etc. as of 2014)	14
Use of multimedia content sharing websites (e.g. YouTube, Flickr, Picasa, SlideShare, etc. as of 2014)	15
Enterprises using the Internet and webpages to:	
Develop the enterprise's image or market products (2017)	40
Obtain or respond to customer opinions, reviews questions (2017)	27
Involve customers in development or innovation of goods or services (2017)	12
Collaborate with business partners (e.g. suppliers, etc.) or other organisations (e.g. public authorities, non-governmental organisations, etc. 2017)	12
Recruit employees (2017)	23
Exchange views, opinions or knowledge within the enterprise online (2017)	13
Use social media for any purpose (2017)	45

Source: Eurostat, 2018.

Table 2. Organization of ICT related functions in-house or outsourced

	EU28 (percent of all enterprises, 2016)
Buy cloud computing services used over the Internet	21
Buy only low CC services (e-mail, office software, storage of files)	7
Buy only medium CC services (e-mail, office software, storage of files, hosting of the enterprise's database)	10
Buy high CC services (accounting software applications, CRM software, computing power)	11
Enterprise had no hard-to-fill vacancies for jobs requiring ICT specialist skills	5
The maintenance of ICT infrastructure is mainly performed by own employees	30
The support for office software is mainly performed by own employees	45
The development of business management software/systems is mainly performed by own employees	15
The support for business management software/systems is mainly performed by own employees	19
The development of web solutions is mainly performed by own employees	15
The support for web solutions is mainly performed by own employees	19
The security and data protection are mainly performed by own employees	25
The maintenance of ICT infrastructure is mainly performed by external suppliers	57
ICT functions are mainly performed by external suppliers	50

Source: Eurostat, 2018.

With regards to e-business, the overall share of companies conducting electronic business is low (Table 3). For example, less than 20 percent of companies are sending e-invoices, or use the web or e-sales. If companies do use electronic sales, this is primarily oriented to the domestic market, with again around a fifth of companies involved. But on the overall, the share of companies with significant web sales (over 1% of turnover) is low, only around 7 percent.

Table 3. E-commerce in the EU15 and EU28 in 2016 and 2017 (where noted)

	EU28 (percent of all enterprises)
Enterprises sending e-invoices B2BG, suitable for automated processing	18
Enterprises receiving e-invoices, suitable for automated processing	26
Enterprises selling online (at least 1% of turnover)	18
Enterprises having received orders placed via EDI-type messages	7
Enterprises having received orders via a website or apps (web sales)	16
Enterprises which sold via a website or apps - B2B and B2G	12
Enterprises which sold via a website or apps - B2C	13
Enterprises where B2C web sales are 10% or more of the web sales	11
Enterprises where B2C web sales are more than 1% of the web sales	12
Enterprises where web sales are more than 1% of total turnover and B2C web sales more than 10% of the web sales	7
Enterprises with web sales to the own country (2017)	16
Enterprises with web sales to other EU countries (2017)	7
Enterprises with web sales to the rest of the world (2017)	5
Enterprises having done electronic sales to the own country (2017)	20
Enterprises having done electronic sales to other EU countries (2017)	9
Enterprises having done electronic sales to the rest of the world (2017)	5
Enterprises having done electronic sales to other EU countries and the rest of the world (2017)	5

Source: Eurostat, 2018.

Companies that do not sell over the web face several problems in the implementation of e-sales (Table 4). These are primarily related to the characteristics of the goods and the high costs of starting selling on-line, followed by the issues surrounding logistics. Issues like payments, security and others are less important.

While there are almost no differences between the average situation in the EU15 and EU28, there are significant differences between companies of different sizes (Table 5). Large companies use mobile broadband significantly

more – 93 percent in comparison to 67 percent of all companies (regardless of size). Large enterprises also use websites more intensely, among other things for providing product information, gathering opinions, tracking products, offering advertising, and using social media. Almost 40 percent (in comparison to the 18 on average) also sell online. Large companies sell also more electronically or via the web across the border. Larger companies face significantly less difficulties when establishing web sales, due to the cost, regulatory, logistics and other reasons, and have significantly less problems in employing IT specialists. On average, 21 percent of large companies have no problems employing ICT specialists, compared to only 5 percent of the companies on average. Large companies also use new technologies (RFID) as well as electronic processing of documents more intensely.

Table 4. Problems in conducting web-sales

	EU28 (percent of all enterprises)
Problems related to logistics (shipping of goods or delivery of services) - enterprises selling via website	2
Problems related to payments - enterprises selling via website	2
Problems related to ICT security or data protection - enterprises selling via website	2
Problems related to the legal framework - enterprises selling via website	1
The costs of introducing web sales too high compared to the benefits - enterprises selling via website	2
Not selling	
The enterprise's goods or services are not suitable - enterprises not selling via website	48
Problems related to logistics (shipping of goods or delivery of services) - enterprises not selling via website	21
Problems related to payments - enterprises not selling via website	15
Problems related to ICT security or data protection - enterprises not selling via website	14
Problems related to the legal framework - enterprises not selling via website	13
The costs of introducing web sales too high compared to the benefits - enterprises not selling via website	21

Source: Eurostat, 2018.

Overall, the data for the European Union shows that there are several issues that need to be tackled. First, with regards to the common internal market and its efficient performance, the digital differences between the countries are large, as shown by DESI indicators. Generally, it is also clear that companies are still very slow at implementing new technologies; they primarily use a webpage and other basic elements. Data also shows that the challenges and consequently the use of new digital technologies are larger in the smaller and medium-sized

Table 5. Share of companies using e-tools by size class in 2016

Enterprises connecting to the Internet via a mobile broadband connection (3G modem or 3G handset)
Enterprises having a website
Enterprises with website providing product catalogues or price lists
Enterprises where the website provided advertisement of open job positions or online job application
Enterprises where the website provided online ordering or reservation or booking, e.g. shopping cart
Enterprises where the website provided order tracking available online
Use social networks (e.g. Facebook, LinkedIn, Xing, Viadeo, Yammer, etc.) (as of 2014)
Buy cloud computing services used over the internet
Buy only low CC services (e-mail, office software, storage of files)
Buy only medium CC services (e-mail, office software, storage of files, hosting of the enterprise's database)
Buy high CC services (accounting software applications, CRM software, computing power)
Enterprise had no hard-to-fill vacancies for jobs requiring ICT specialist skills
ICT functions are mainly performed by external suppliers
Enterprises using Radio Frequency Identification (RFID) technologies (as of 2014) (2017)
Enterprises sending e-invoices B2BG, suitable for automated processing
Enterprises receiving e-invoices, suitable for automated processing
Enterprises selling online (at least 1% of turnover)
Enterprises having received orders placed via EDI-type messages
Enterprises having received orders via a website or apps (web sales)
Enterprises which sold via a website or apps - B2B and B2G
Enterprises where B2C web sales are 10% or more of the web sales
Enterprises where web sales are more than 1% of total turnover and B2C web sales more than 10% of the web sales
Enterprises with web sales to the own country (2017)
Enterprises with web sales to other EU countries (2017)
Enterprises with web sales to the rest of the world (2017)
Enterprises having done electronic sales to the own country (2017)
Enterprises having done electronic sales to other EU countries (2017)
Enterprises having done electronic sales to the rest of the world (2017)
The enterprise's goods or services are not suitable - enterprises not selling via website
Problems related to logistics (shipping of goods or delivery of services) - enterprises not selling via website
Problems related to payments - enterprises not selling via website
Problems related to ICT security or data protection - enterprises not selling via website
Problems related to the legal framework - enterprises not selling via website
The costs of introducing web sales too high compared to the benefits - enterprises not selling via website

Source: Eurostat, 2018.

(where indicated data for 2017, number of employees in brackets)

	All	Small (10-49)	Medium (50-249)	Large (250+)	Large - all
	67	64	81	93	26
	77	74	89	94	17
	56	54	66	70	14
	27	21	49	74	47
	18	17	23	29	11
	8	7	12	19	11
	42	40	50	63	21
	21	19	29	45	24
	7	6	9	12	5
	10	9	13	19	9
	11	10	14	23	12
	5	4	9	21	16
	50	51	46	28	-22
	12	9	27	44	32
	18	16	24	38	20
	26	25	30	41	15
	18	16	24	38	20
	7	5	13	26	19
	16	15	20	27	11
	12	11	14	19	7
	11	10	11	14	3
	7	7	7	9	2
	16	15	20	27	11
	7	7	10	12	5
	5	4	6	8	3
	20	18	28	41	21
	9	8	14	23	14
	5	5	8	14	9
	48	48	49	47	-1
	21	21	18	15	-6
	15	15	12	9	-6
	14	14	12	9	-5
	13	13	11	10	-3
	21	22	18	14	-7

companies. But in general, companies face problems in finding suitable ICT specialists (over 90 percent of them), which could to a great extent explain both slow implementation of the new technologies as well as large outsourcing.

2 Policies to support digitalization, Industry 4.0 and technological development

The European Commission is trying to develop a modern, competitive, technologically advanced, clean and inclusive economy. The industrial policy at the EU level focuses on a number of issues, the main ones being digital transformation, smart specialization, skills development, cluster development and development of key enabling technologies, as well as standardization (European Commission, 2018e).

In 2017, the European Commission set the D4D (Digital for Development) policy dedicated to mainstreaming digitalization and promoting the principles of the European Digital Single Market in developing countries. Four main priorities within D4D are: assuring affordable broadband connectivity, digital literacy and skills, promoting digital entrepreneurship, and using digitalization as an enabler, among others deploying also e-commerce. Trade promotion organizations should embed digital tools in the services they offer to small businesses. For instance, online platforms could be better leveraged to present businesses internationally and reach desired communities, facilitate data collection and analysis, and assess customer needs. There should be a greater use of e-market solutions and social media platforms in events such as trade shows and in other efforts to facilitate e-commerce. Public-private partnerships can also be useful in such a context (European Commission, 2017).

The evolving e-commerce and digitalization have raised many questions at the policy level, mostly related to the concerns of whether the widespread use of new technologies, automation and online platforms will lead to job losses, growing income inequality and greater concentration of market power and wealth. There is also a risk that they will have negative impacts on the bargaining power of users and consumers and will result in the loss of privacy. Online platforms largely influence the rules of engagement in the e-marketplace, affecting inclusion, competition, consumer trust, applicable norms and dispute resolution. Moreover, new business model raise difficult questions about competition policy. Because platforms often do not charge for a service, they do not actually exert monopoly power over users. But they could do so over vendors

buying advertising space. Just four companies – Google, Facebook, Baidu, and Alibaba – now account for half of all digital advertising revenue. Furthermore, dominant platforms could exert monopsony power (because there is only one or just a few buyers). For instance, book publishers depend on Amazon for a crucial share of their total sales. Therefore, the key for global policy makers is to understand how the ICT ecosystem works in practice and drive well-informed and future-oriented policy approaches based on identifying not only the opportunities and barriers for digital trade but also potential threats at supra-national, international and national levels.

To promote digitalization and e-commerce, European policy-makers must address the issues that are at the moment inhibiting faster introduction and use of new technologies. These are the following (as identified earlier in the data):

1. Infrastructural development (primarily the speed of broadband access and mobile access);
2. Large disparities between countries as well as regions;
3. A slow pace of adoption of the Internet and company webpages other than for presenting the company;
4. Slow digitization of business processes;
5. Many obstacles in the implementation of e-commerce and e-commerce across borders, including skilled (ICT) specialists;
6. A significant lag of small and medium-sized companies in both implementation and use of new technologies.

The European Union has in its industrial policy clearly set up the priorities and prepared a comprehensive policy set which could efficiently address the existing problems. With regards to the development of the digital society and the broad use of new technologies in the companies, the digital transformation policies, ICT standardization, and smart specialization represent an efficient mix of policies, all targeting different problems but with a joint goal of promoting the development of the digital society and a competitive economy. The digital transformation policies promote the development of the single market, the use of new technologies, as well as innovation activities, primarily in SMEs. Standardization is the cornerstone for the successful use and spread of new technological solutions, and the wide use and interoperability of the new technologies. Due to the standardization, the wide market for new solutions promotes both development and the use of new technologies, which in turn strengthens competitiveness. Smart specialization policies, accompanied

by key technologies and cluster support, offer an additional stimulus for the technological development and a wider use of new technologies. Overall, these policies are accompanied also with a plan to promote skills development, which provides an efficient and comprehensive policy mix (Table 6).

Table 6. Summary of the main policies related to digitalization and promoting Industry 4.0

Policy area	Purpose/goal	Measures
Skills for industry	Ensure workforce properly educated and skilled to suit the needs of technologically advanced industries.	New Skills Agenda for Europe (2016, upskilling), Blueprint for Sectoral Cooperation on Skills (2018, high-tech sectors), Digital Skills and Jobs Coalition (2016), IT skills development and development of e-competence framework, KETs and STEM competence development and leadership skills.
Digital transformation	Digital B2B platforms and data-driven business models, Digital cities and smart cities, Smart use of ICT for SMEs.	Digital Single Market Strategy, Big Data public-private partnership, H2020 projects, COSME, European Innovation Partnership on Smart Cities and Communities, Fostering SMEs' Growth through Digital Transformation.
ICT standardization	Unified ICT standards for achieving interoperability of new technologies.	Communication on ICT Standardisation Priorities, European Multi Stakeholder Platform on ICT Standardisation, 2018 Rolling Plan for ICT Standardisation.
Key enabling technologies*	Applications in multiple industries address economic and societal challenges, stimulate growth and competitiveness.	2012 Communication on KETs, supporting investments in KETs, KETs Observatory, help SMEs get KETs technology platforms, activities on trade, skills, facilitation of large industrial projects.
Clusters	Promote cluster development as core of industrial development.	The European Cluster Observatory, Cluster Excellence; Cluster Internationalisation, Clusters in Emerging Industries.
Smart specialization	Smart specialisation and interregional cooperation to promote competitiveness and innovation.	Different thematic areas, regional leaders, inter-cluster cooperation, industrial partnerships.

*KETs: micro and nano-electronics, nanotechnology, industrial biotechnology, advanced materials, photonics, and advanced manufacturing technologies).

Source: European Commission, 2018b-h.

Digital transformation is at the core of the EU's industrial policy, since the Commission perceives that it represents a major growth potential. The potential is claimed to be primarily in technologies, such as "the Internet of Things, big data, advanced manufacturing, robotics, 3D printing, blockchain technologies and artificial intelligence offer" (European Commission, 2018b). But digital transformation does not refer only to the implementation of new technologies, but also to an efficient merger of the new technologies into the existing and upgraded systems, accompanied by a change in the business models as well as the lives of people. To promote digital transformation, the EU has undertaken

several activities and prepared strategic priorities within the Digital Single Market strategy, Big Data public-private partnership, H2020 projects, COSME, European Innovation Partnership on Smart Cities and Communities; Fostering SMEs' Growth through Digital Transformation' (European Commission, 2018b).

To promote the development of the digital society, ICT standards are crucial. With regards to ICT standardization, it should be mentioned that the priorities are set in the following areas: 5G, Internet of Things, cloud computing, cybersecurity and data technologies. These are considered especially important factors of competitiveness but will also promote development in other areas, such as eHealth, intelligent transport systems, autonomous vehicles, smart homes and cities, and advanced manufacturing (European Commission, 2018b and 2018d).

Digitalization is one of the ways to promote growth of higher value added. But on the other hand, it is also important to focus on growth in countries/regions which have advantages and in industries with higher value added. To achieve this broad goal, the EU has been promoting smart specialization. It also focuses on KETs (micro and nanoelectronics, nanotechnology, industrial biotechnology, advanced materials, photonics, and advanced manufacturing technologies), areas that are closely related to high-tech or high value added industries. Strengthening of companies is further promoted with cluster development. To achieve these three ambitious goals, the EU has introduced a number of projects and measures, including supporting investment in the KETs Observatory. To help SMEs in this context, the EU facilitates large industrial projects and supports projects such as the European Cluster Observatory, Cluster Excellence Programme, internationalisation, and many others (Table 6, European Commission, 2018b, 2018c, 2018d, 2018, d, 2018e, 2018g).

Skills are on the top of the European future oriented industrial policies. The Commission considers primarily high-tech skills and also leadership skills to be crucial. However, it is also aware of the need for a match between skill needs and availability. Its focus is therefore also on curriculum development and promotion of specialized skills development (big data, the Internet of Things and cybersecurity). Successful skills development requires cooperation with the corporate sector, which has been achieved with the Blueprint for Sectoral Cooperation on Skills and the Digital Skills and Jobs Coalition (European Commission, 2018g).

Conclusion

Although the EU is becoming more digital, its pace of digitalization is at present too slow to catch up with the global leaders. To speed up the process, a quick completion of the Digital Single Market is a necessity. Moreover, increased investment in digital economy and society is also required. However, all this investment will not be useful if people do not have proper digital skills. So, the EU needs to spend more effort to equip its workers with adequate skills, especially since there is still a substantial skill gap present.

How successfully the EU implements the policies presented in this chapter will determine if the EU can become a global digital leader in the upcoming years.

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