Introduction

Technological boom in the United States in the 80s did not find a direct, rapid translate into an increase in profitability. At the end of the 80s, after the American companies had invested during ten years over one trillion US dollars in information technology, 85% of which in the services, industries, as well as profits and productivity, showed signs of stagnation [1].

Not all technologies take on the market, and those that have been successful, like any product, are subject to the cycle of life and over time disappear with use, so distinguished 3 stages of adaptation technologies. Core technologies are those that are widespread in the business field, because there are already at its inception. They were by all manufacturers well controlled, and their impact on competition processes has ceased to be decisive. Key technologies, have the greatest and decisive influence on the processes of competition, because their mastery prejudice the conquest by the company and the specific skills necessary to succeed in the field [2]. Emerging technologies are only in the stage of development, applicable only sporadically and they only incidentally affect manufacturing processes in the field, but their growth potential is considerable, and some of them may in time become the key technologies.

The development of new technologies meets the needs and expectations of society and as a result, over time they become a part of it. New technologies create new, virtual forms of space and time and include more recent communication interfaces [3]. Currently, we are becoming a mobile society. Technologies and mobile devices have been present on the market for many years. The first such devices were already constructed in the nineties of the twentieth century, and before that there were available electronic organizers or specialized portable terminals. Only in recent years, mainly due to mobile phone manufacturers, mobile technologies have entered a phase of rapid development and have become a part of everyday life. In recent years, one can observe a real boom, initiated by well-known visionary ideas from Apple, who created a truly mobile device in excess of the natural barriers and limitations of mobile phones.

There is no doubt that today mobile devices, in contrast to the first computers were designed for the consumer market. In this context, the mobile business would refer to only one side of the market: manufacturers and distributors of the same hardware, software, accessories and related services. However, the availability of technology and its widespread acceptance causes that more and more people are asking: how can you take advantage of mobile devices in business? And actually, what are these benefits and on whose side you can use them - customers or business? The main advantage defines the „mobile”, which is available „everywhere” and that on this aspect is based on the success of portable devices.

First, it would seem obvious that the application of mobile technology is communication. Access to your email on your smartphone or tablet is considered to be something obvious, convenient and even necessary. But communication in business and private life is not limited to e-mail. On the market there are advanced solutions, providing controlled communication of specific working groups, including video calling and geolocation. Communication is also a distribution of other data that you wish to access on-line: eg. If the investor information channels to reach potential customers. Responsibilities of the commercial representative require frequent trips outside the office, and providing permanent access to the CRM system can significantly raise efficiency.
Mobile devices consistently siphon off more areas reserved for personal computers and their business applications are getting wider. Until now, mobile solutions were mostly use by employees as a form to facilitate their work in the field, today more and more apparent trend in the use of mobile solutions in providing entertainment and marketing.

The article discusses the issues of the use of mobile devices in modern business. The paper is based on the literature presenting the results of secondary research conducted among others by the international research company Gemius [4], which examined the demographic structure of Internet users with particular emphasis on users of electronic purchases. The share sale and purchase transactions made on the network using mobile devices examined in turn mGenerator.pl portal in Poland. Based on the results of this research it can be concluded that the share of mobile devices across the network traffic compared to the global average puts Poland at the forefront in terms of the number of users of smartphones or tablets. The emergence of the information society and technological progress has forced entrepreneurs to adjust their offer and marketing efforts to a new type of mobile clients.

The technology will revolutionize trade in the world

M-Commerce is the use of wireless handheld devices such as cell phones and laptops to conduct commercial transactions online. Mobile commerce transactions continues to grow, and the term includes the purchase and sale of a wide range of goods and services, online banking, bill payment, information delivery and so on. Also known as m-commerce.

E-commerce and m-commerce are fairly contractual terms, about even vaguely marked borders. The difference lies in the fact that the user is shopping sitting at the computer, or reaching for their tablet or phone. Research shows that PayPal / Ipsos, for some people it is no longer just a matter of tools to buy, but a new way of shopping.

The range of devices that are enabled for mobile commerce is growing, having expanded in recent years to include smartphones and tablet computers. The increasing adoption of electronic commerce provided a strong foundation for mobile commerce, which is on a very strong growth trajectory for years to come.

The rapid growth of mobile commerce is being driven by a number of positive factors - the demand for applications from an increasing mobile customer and consumer base; the rapid adoption of online commerce thanks to the resolution of security issues; and technological advances that have given wireless handheld devices advanced capabilities and substantial computing power.

Today in Poland, 2 to 3 sellers phones are smartphones, 5 million people use mobile Internet and and on 1 inhabitant average falls 1.4 SIM card. According to estimates, the value of domestic market m-commerce is expected to reach in 2015 0.5 billion [5]. Despite such positive information, the research shows that the Polish online stores do not keep pace with the imminent changes in the habits and preferences of customers [4].

M-commerce in the world

M-commerce is now 34% of all eCommerce transactions globally – based on an accurate weighting of eCommerce market size by country. Mobile share is slightly lower in the US than the global average with 29% of eCommerce transactions coming from mobile devices. For the first time ever, Japan and South Korea had the majority of their eCommerce transactions via mobile in Q1 2015. By the end of 2015, mobile share is forecast to reach 33% in the US, and 40% globally [6].
In terms of popularity, customers usually buy on mobile devices clothes, in contrast the share of mobile transactions are low in the Home category, which includes home improvement and interior design products. While these are less “impulse” purchases, we often find conversion rates are driven more by the quality of the mobile site experience.

The majority of mobile transactions in the US come from smartphones, more than the share of smartphone transactions in the UK and Germany. Even though the conversion rates on smartphone are lower than desktop or tablet, smartphones generate more transactions due to significantly higher traffic. With the introduction of larger screen-sizes, such as with the iPhone 6 and SamsungGalaxy, consumers are finding smartphones a convenient way to complete purchases [6].

Consumers are especially comfortable buying on tablets and order values on tablets have surpassed desktop in many categories. Smartphone order values are close to desktop for both the Health &Beauty and Mass Merchants categories. Products for these categories are low cost and drive repeat purchases, lending themselves well for smartphone convenience. Travel smartphone order value reflects the growth of a whole new segment of “same night” hotel booking.

**Fig. 1.** Mobile Share of e-commerce Transactions  

**Fig. 2.** Mobile Share of e-commerce transactions by category)  
M-commerce in Poland

The technological revolution is increasingly affecting shopping habits, although in Poland the resistance of the new is still strong, especially among older consumers. In Poland, the study on a group of 800 people was conducted by Ipsos, which has estimated the market size of mobile commerce and prepared sales forecasts to 2016. They show that while in 2014 Poles spent 2 billion zlotys using smartphones, in 2015 the expenditure will exceed 2.6 billion zlotys, and already in 2016 a turnover of m-commerce will amount to 3.4 billion zł. The dynamics of gains in the market is impressive - 30 percent on average. The e-commerce market is growing three times slower, but it is almost ten times larger. In 2015 in Poland commerce on the Internet will be worth 23.4 billion zlotys, and next year - 25.5 billion zlotys [5].

Of the 26 percent adult Poles, who in recent months have used cell-to-buy, 37 percent searched for the information of the shops, 27 percent read reviews and ratings, and 26 percent compared the prices being already in the store. In „show rooming”, the ability to quickly verify the prices on the internet, telephone gives a big advantage over the computer. In Poland, it is not yet especially appreciated. 32 per cent of respondents did not have to buy „on the go”. 25 percent considers phone device unfriendly, and 52 per cent states that it is a tool inconvenient for online shopping [4].

Interestingly, active users of m-commerce asked why they buy via the phone - in the first place put convenience- 45 percent gave this reason. 39 percent respondents appreciate the speed. Perhaps with respect to m-commerce decide generational issues - 59 percent of buyers are people between the ages of 18-34 [5].

Beacon. Smartphone. NFC.- new solutions suited for e-commerce and traditional commerce revolutionizing a trade

Until the end of 2015, it is estimated that almost one-third of the shops in the US and 15-20 per cent in the UK it will install beacons, or small transmitters that communicate with tablets and smartphones clients. At the same time, the world's 5 percent smartphones with NFC, which is a technology that enables communication between different devices, will be used to make mobile payments at least once a month [7].

Beacons enable precise location of the customer, understanding their buying habits and inform him about the promotions at the moment of crossing the threshold of the store. A quick NFC technology enables payments via mobile phone.

Digital technologies are a great opportunity for traders who, through their use, can help consumers to shop, and at the same time get their loyalty. In a study conducted in the UK 45 percent of smartphone owners declared that they want dealers to send them messages, and 33 per cent of them said that these personalized ones affect their purchasing decisions. Vendors should, however, be careful not to cross the fine line, because many customers still do not wish this type of contacts and perceive them as an invasion of their private sphere [6].

Showroom- new trends in trade

Group of people shopping online is growing rapidly, but the Internet and smartphone customers also do not part with purchases in stationary stores.

GfK study shows that before you buy in a traditional store, first they compare prices of products by telephone (27 per cent of customers), searching for the most attractive offer on the network. They also contact family and friends for consultation [8].

In addition to the tips close, they look also very keenly to comments posted on the Internet by users or customers of the product they are interested in the store. This behavior is troublesome for shops, because it can scare customers off.

Experience stationary shops realizes that customers who are standing between the shelves, taking pictures of products, or scanning barcodes by their smartphones do not intend to make a purchase on the spot, and only check it against possible transaction online. As shown by the GfK data, every third client was
taking pictures at the mall store, and almost every fifth scans the codes. Mainly young people, aged 15-29 do so, but more and more seniors are willing to use this type of solution, looking for cost savings [8].

Even while still in the store, people buy merchandise online via their smartphone. It happened already to 17 per cent of surveyed Poles. Only the customers in Asian countries or the USA behaved in this way more often.

It happens that in some shops staff intervenes when they see the photographer of merchandise. Sesta Market Research Agency calculated that such a ban was introduced by 84 per cent of outlets. Lawyers argue, however, that consumers can’t be prevented to take pictures and compare prices, but the showroom may significantly affect the turnover generated by traditional trade.

**M-marketing**

The consequence of m-commerce has become an m-marketing, or mobile marketing, using technology mainly mobile phones and other mobile devices to communicate marketing materials. M-marketing is now one of the most effective forms very precise to reach the customer. It is a mass medium, giving you the chance to personalize the message. Messages in the form of SMS or MMS can be sent to strictly selected group of customers based on demographic or behavioral data and information reaches directly to a specific recipient. Such interaction with the customer is highly effective, and also allows you to quickly and cheaply importantly build a relationship with the customer.

Promotion and marketing of products that are traded is traditionally held by a direct approach to a potential client by mail, by a commercial intermediary, via a press release or other limited in terms of range of communication media. With a choice of the Internet, we have access to the global market including worldwide coverage. The result is that our commercial offer is available constantly for millions of users, for 24 hours a day and throughout the week. The Internet also allows for closer cooperation between e-traders. Increasingly popular are the so-called affiliate promotions[9]. They carry them out in companies from various industries, having similar target audience. Thanks to these shares the impact of promotional messages increases while sharing costs between the organizers [10]. One of the techniques of mutual cooperation in the promotion of e-business is a crosslinking involving a mutual promotion of websites, which may take the form of regular exchanges of banners or text links [11].

As the first manifestation of the Internet advertising were recognized graphic advertising strips published for the first time in October 1994 in the online magazine HotWired [12]. When it comes to traditional methods used in e-marketing, is currently the leader leads initiating the use of tools (acquisition), which are primarily used in the Internet to identify potential customers and gain their personal data [13].

Affiliate Programs Internet site (Affiliate) (ang.: affiliate marketing) - the content of the marketing message goes to a mass audience as exemplified by the site NaszaKlasa (www.nk.pl) and Google (www.google.pl), which generates 3 billion page views, where the advertising is matched to the content of the website (a website is visited previously by google works that examine and index content).

Advertising scene Advertising feedback response on the Internet, inviting you to visit the site, placed on different media, such as billboards, double billboards, wallpaper, toplayers, brandmarks, video billboards, boxes, rectangle, but tons.

Other contextual advertising network (extension SEM), the difference lies in the fact that in the case of SEM the user sees an ad for the query in a search engine, while in the case of contextual advertising campaign is displayed on a particular Web page and is linked to its content depending on the definition of target audience and advertising campaigns assumptions can be characterized by varying degrees of matching, for example, a marketer who wants to advertise dietary wafers may post advertising on sites of a female (broad targeting) or services closely related to diet and a healthy lifestyle (narrow targeting).

Advertising scene in instant messaging, eg. MSN (banners in the chat window, so that advertising reaches several million users and is effective in building a database on the basis of personal data submitted by the user at registration).
Mapvertising ("marketing in virtual maps) is an uncommon form of advertising that allows for assigning advertising offer to a specific location on a map, its main task is to help individuals locate a specific product or service, in the case of portal Google-Maps (www.maps.google.com) you only need to set up a free Google Account and add your location to the search engine by typing in the search shows the map with marked places that are registered in the system GoogleMaps.

Billboards, advertising strips or "pop-ups" or wallpaper blocking access to the website are often blocked by users with add-ons or plug-ins for web browsers, because they only irritate Internet users. The key to success in online marketing is personalization of promotional campaigns, so a big success and efficiency can boast of tools used in search engines and affiliate programs.

The most commonly used tool in m-marketing are sales promotions involving the placing of a unique alphanumerical code on the packaging of products so that customers can send an SMS, thus registering their participation in the contest or sweepstakes. Consumer encouraged by the chance to win prizes reaches for the product. It is a form of stimulation of demand which at the same time gives the possibility to the seller to collect phone numbers of clients to use thus created base for subsequent promotions. The added value for the seller is the ability to analyze geographical locations making purchases through special codes contained in the message. Maintaining continuous dialogue and learning about customer feedback on products and company are the foundation for building consumer loyalty. On the one hand, these activities allow you to build a database of customers, on the other, create loyalty programs, bearing in mind that customer retention is several times cheaper than its acquisition.

Mobile advertising which is a form of mobile marketing was limited so far to send SMSs or MMSs to promote services, products or special offers. The advent of smartphones has caused that this ad is more and more often is displayed directly on the screen of mobile phone in the form of a banner in a search engine or received when downloading the file. At the same time sending marketing content uses already known bluetooth, through which you can send to the receiver objects such as images, videos, music files or games and mobile applications.

Another tool of m-marketing are coupons which take the form of alphanumerical codes or 2D. The coupon entitles the consumer to the purchase at a discount or receiving free services in retail outlets. Just find the code seller who has a GSM terminal authentication code or enter the code in the form of digits in order to verify the authenticity and correctness of the code, and consequently the bonus. It is important that such code is disposable and after the authorization it is disposed so as not to be used again. The most popular mobile coupons are cinemas and restaurants, and closed events, for example concerts.

A notable trend will also be trespassing e-stores to the real world, which will be possible thanks to mobile technologies that are available today, but still rarely used in support of e-sales. It is here, among others, about QR codes and NFC tags, as well as dedicated for m-commerce sales applications using, among others, gamification. They will allow for the presentation of the offer of e-shop for example special temporary stands deployed in urban space.

Summary

Over the last few months we show that native e-shops slowly but consistently implement mobile solutions. The growing importance of mobile e-commerce has meant that shops which first invested in mobile solutions, today can no longer count the profits. In this situation the trader to date from a distance glancing in the direction of mobile begun to appreciate its importance and seek tools to acquire traffic through it.

In 2010 mobile customers they generate only 0.3 percent. orders. It can be regarded as a breakthrough in 2013, when the total number of orders placed on our website via smartphones and tablets was 5.7 percent. This year, almost one in 10 customer He made the reservation online via mobile devices.

However, the situation does not look so good in the case of Polish companies focusing on e-commerce, which seem to be oblivious to the potential of mobile users. The biggest changes concern, however, users themselves. Already 50 percent. Poles have a smartphone, and one-third of the tablet. The steadily growing...
group of users actively using the Internet and applications via mobile devices. Increasingly, it makes shopping in this way. This is what our country has to grow rapidly in Europe, reaching in 2015 a growth of 113 per cent., So that the m-commerce market in Poland reaches billion [14].

Abstract

Technology is a part of the environment in which each company operates. It reflects the current level of knowledge about the production of products and services. It is one of the strongest elements affecting the business environment due to the continuous development and progress. The universality of the Internet resulted in the transfer of a business into a virtual arena, in particular, contributed to the development of e-commerce. On the Internet you can buy almost everything - from food to a car - and every year more and more Poles are buying things, sitting in front of a computer. According to experts, the forthcoming years will be dominated by m-commerce, or purchases using a smartphone or tablet. The paper is a review of literature and cited the results of global and Polish market research on the popularity of m-commerce. This article aims to answer the question of how rapidly growing market for mobile devices and applications has the opportunity to change the way of doing a trade.

Keywords: e-commerce, m-commerce, smartphone, e-trade

ROZWOJU I PRZYSZŁOŚĆ HANDLU MOBILNEGO W POLSCE I NA ŚWIECIE

Streszczenie

Technologia jest elementem środowiska, w którym funkcjonuje spółka. To ona odzwierciedla aktualny poziom wiedzy o produkcji wyrobów i usług. Jest to jeden z najmocniejszych elementów wpływających na warunki prowadzenia działalności gospodarczej ze względu na ciągły rozwój i postęp. Powszechność Internetu doprowadziła do przeniesienia działalności wirtualny rynek, w szczególności do rozwoju e-commerce. W Internecie można kupić niemal wszystko - od żywności do samochodu - i co roku coraz więcej Polaków kupuje rzeczy, siedząc przed komputerem. Zdaniem ekspertów, nadchodzącce lata będą zdominowane przez m-commerce, czyli zakupy za pomocą smartfona lub tabletu. Artykuł ma na charakter przeglądu literatury oraz przedstawia wyniki światowych i polskich badań rynku na temat popularności m-commerce. Artykuł ma na celu odpowiedzieć na pytanie, jak szybko rośnie rynek urządzeń i aplikacji mobilnych i czy ma szansę zmienić sposób prowadzenia handlu.

Słowa kluczowe: e-commerce, m-commerce, smartphone, e-handel

References


