Navigating New Marketing Technologies, Channels and Metrics

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The goal of this paper is to analyse the advantages of today's marketing technologies, marketing channels and marketing metrics and to identify the difficulties which companies face in navigating them. Modern technologies in all industries are drastically changing human lifestyle, interactions and expectations from the brands. Companies are directing more of their marketing investment into online, mobile, as well as combined online and retail channels, while traditional marketing channels become less effective. New retail and mobile technologies offer many possibilities for interaction with consumers and planning of an effective marketing strategy. A variety of marketing analytics tools helps the companies to measure digital marketing performance. The conclusion of the paper is that new marketing technologies, channels and metrics dictate new standards for managing of company's marketing in the 21st century market. Research methodology includes study of literature, scientific articles and online sources related to digital marketing, technology and consumer behaviour.

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Introduction

Today's technology is developing so rapidly that its continuous improvements are getting increasingly difficult to keep the pace with. It is changing the society and vice versa – the society is affecting the development of the technology and directing where it wants the technology to go, to match the needs of average consumers and improve their every-day life. Yet, some companies still fail to understand the significance which the technology has on the lives of the consumers and how important it is to design a memorable consumer experience and relevant personalized content which will attract them. The increased use of technology by consumers has led to market and product differentiation (Ampountolas 2018,

14) and there is a widespread assumption that recent advances in Internet technologies have transformed the previous pattern of human communication (Bannor, Asare, and Bawole 2017, 343) which has consequently led to a drastic change in personal interactions, relationship and lifestyle in general. With Internet as the first point of contact between companies and consumers, and mobile channel accounting for 57% of Internet traffic (Leuman 2018), companies today are affecting consumers' beliefs about the brand or the product by providing them interesting online/mobile consumer experience.

For the past 15 years digital transformation has been taking place in all aspects of businesses across all industries. Digitalization is one of the most significant on-going transformations of contemporary society and encompasses many elements of business (Hagberg, Sundstrom, and Egels-Zandén 2016, 694). Companies which have invested in modern technologies and which update them regularly, have set a new level of doing business as a standard for other players in their industry. Understanding and using new marketing technologies helps companies improve consumer experience in all marketing channels and at every point of contact with the brand. Companies which utilize them can achieve competitive advantage and plan a more effective marketing strategy. New online IT solutions and applications allow the tracking of marketing activities in online environment through marketing dashboards by providing easy and transparent measurement of their effectiveness.

The purpose of this paper is to analyse new marketing technologies, marketing channels and marketing metrics, to outline their positive effects on today's companies business and to identify some of the difficulties which companies face in navigating them. Research was conducted in the period from July 2018 to January 2019 through methods of collecting and studying of open access literature and scientific articles found in Library Catalogue of Zagreb University Faculty of Economics and Business, *Emerald Insight* database and *Hrčak Portal of Scientific and Professional Journals.* For this purpose the following areas were researched: marketing strategy, marketing channels, online advertising, mobile marketing, marketing metrics, marketing effectiveness, marketing performance, marketing measurement, multi-channel marketing, omni-channel marketing, retail marketing, digital displays, marketing technologies, mobile channel, and similar. However, not many sources provide overview of new marketing channels which have developed owing to modern technology possibilities and new metrics of marketing activities conducted through

those channels. Additionally, practical suggestions and implications on how to use new technologies to improve specific dimensions and metrics of marketing activities can seldom be found in books and other professional papers. Therefore, the author had to include in the research also Internet sources such as recently published online articles and YouTube videos which cover these narrowed research areas. The majority of found sources deal with the influence of modern-day technology on consumer behaviour patterns, which have radically changed in the past fifteen years which has affected traditional marketing in all aspects and the way of doing business in general. Therefore, as a source of information for some cases mentioned in the paper was author's knowledge gained at Marketing Management postgraduate study at Zagreb University Faculty of Economics and Business. Also, author's own experience from working at positions of *Marketing Investment Officer* in Samsung Electronics and *Marketing Analytics Manager* in Microsoft, present a foundation for expressing some personal viewpoints and for making general conclusions.

Even though online has been the first point of contact with the brands for the consumers around the world, mobile communication channel is gradually taking over. Mobile is becoming the leading channel because unlike other channels, through it the companies are able to reach the consumers directly and communicate with them in real time, providing them benefits such as unique brand experience and opportunity for interaction with the brand whenever and wherever they want. Apart from interaction with the brand they are interested in, consumers look for unique brand experience so companies which know how to provide a memorable consumer experience via any marketing channel, don't face as many obstacles in gaining high positions in consumers' perception. Companies are challenged to provide compelling consumer experience across offline and online touch points (Hilken et al. 2018, 510). With so many brands in the marketplace fighting for consumers' attention, it is essential that brands ensure solid recognition in consumers' minds. To do that, they need to be different and better in all aspects of business, especially their approach to consumers. The objective of the paper is to attract attention of managers to competitive advantage possibilities which can be achieved by combining new technologies with marketing channels and greater possibilities than ever before for measuring marketing performance and return on investment.

The contribution of this paper in relation to previous published papers which have been written on similar subjects can be recognized in the form

of its progressive character where the authors is pushing of the 'pre-set boundaries' by analysing marketing-related terms and subtopics which had not previously been addressed often by too many other authors. In this paper the readers will be able to engage in progressive thinking about the future of marketing, combined with the vast possibilities which new technologies bring to humanity, opening a whole new world with modern marketing channels and consumer targeting possibilities.

This paper is structured in seven sections. After the Introduction, in the second section main concepts and terminology used in the paper are defined. Separate sections cover three main research areas of this paper, discussing marketing technologies, marketing channels and marketing metrics. The end of this paper contains sections concerning practical implications and conclusions.

Main Concepts and Terminology Definition

The term 'digital marketing' refers to promotion of products or brands via electronic media, digital marketing channels and methods (sas Software 2014). The term 'marketing technology' is used to describe a blend of two separate disciplines – marketing and technology – and defines all the technology which companies use to perform marketing activities in the second decade of 21st century. Since it would not be possible to conduct modern marketing activities without the use of technology, today these two concepts are bound together within the term 'marketing technology,' often also referred to as 'MarTech.' Except for online and mobile marketing technologies, there are many other types of digital technologies which have to do with retail marketing possibilities or outdoor advertising and consumer interaction via displays. The term 'marketing channels' encompasses all the routes, channels or platforms which companies use to reach the consumers. Marketing channels are a set of people, activities and intermediary organizations that play a role in the process of transferring the ownership of goods/products from point of production to the point of consumption. They are interdependent on each other and interact with each other (Bhasin 2018). The term 'omni-channel' is used to describe a form of retailing that allows customers not only to shop across channels but also to interact with the brand anywhere and at any time, providing them with a unique, complete and seamless shopping experience that breaks down the barriers between virtual and physical stores (Mosquera et al. 2018, 64). Omni-channel marketing allows the customer to experience a 'holistic' shopping experience, one in which a customer's buying

journey is smooth and seamless, irrespective of the channels used (Payne, Peltier, and Barger 2017, 189). The term 'multi-channel' means using two or more synchronized marketing channels (Payne, Peltier, and Barger 2017, 186) to deliver company's marketing message to the consumers and by doing so, to support the distribution of company's goods or services. As a result of technological advance, a new multi-device consumer has emerged, who uses several channels simultaneously (Mosquera et al. 2017, 65). The term 'marketing metrics' refers to numerous measures of marketing efficiency, effectiveness and success of performance of undertaken marketing activities of a company. The speed and immediacy of digital combined with advanced analytics make it possible to measure, monitor, and test digital campaign performance, to learn what works and what doesn't work, which helps companies achieve higher ROI and improve customer experience (SAS Software 2014).

Marketing Technologies

It is a fact that an average consumer uses five different technological devices in a day, including: one or two smartphones, desktop computer/laptop at work, personal laptop, tablet and even Smart TV screen (Digital Marketing Institute 2016). The idea is not about seizing this opportunity and simply targeting prospects directly through all devices and all channels available (companies doing so are often perceived as intrusive or annoying, and are therefore ignored by consumers). The goal is to attract consumers' attention and interest and find a way to keep them for a longer period of time. This can be done either by engaging the consumers in a dynamic brand relationship characterized by interesting interaction and benefits, or by requesting from them to help build the brand with their recommendations and opinions, which will increase their loyalty and sense of pride because of their contribution to the world. The most important thing in marketing management is to remember that brands exist because of consumers and for the consumers so listening to them and empathizing with them is essential. It all comes down to the human note in doing business and the technology today is what can help leverage a brand-consumer relationship to the next level and make the companies thrive.

Research shows that in 2012, 65% of consumers had a digital experience affect a change in their opinion about the brand (Conversation, LLC 2012). In 2014, 30% of consumers were communicating with brands through their social media profiles (Digital Marketing Institute 2016) In

2016, 77% of world population owned at least one mobile device and most of the users habitually check their mobile device 150 times a day in average (Digital Marketing Institute 2016). In 2017, 74% of shoppers made a purchase based on a mobile device search and at the same time 79% of top advertisers didn't have a mobile optimized site (Prismaxel 2017). According to Internet World Stats, in June 2017, a 51% of world population – more than 3.8 billion people – were actively using Internet (Kostić-Stanković and Vukmirović 2018, 158). In 2018, social media has become a hugely important part of company's marketing communications so retailers which decided to invest in social media strategies perform better than the competition (Vend 2018). With advanced technology allowing mass usage of smart communication devices, a change in traditional consumer purchasing behaviour is affecting the society in a drastic way. Today, in 2019, over 6 billion people use mobile phones daily and mobile devices are changing purchasing patterns and buyer behaviour which used to exist over the last century.

Marketing capability requires the use of digital technology as digital technology determines the organizational capability to research customers, competitors and the broader market environment (Foroudi et al. 2017, 232). Depending on the industry, the aspect of new technologies in marketing will have a stronger or weaker role in creating a company's competitive advantage and better competitive position in the market. Digital technology adopted by the organization enhances the ability to respond positively to customer needs and, at the same time, improves customer-side operations. The most important contribution of digital technology is that it focuses on the consumers and businesses and helps drive sales and increase efficiencies by reducing costs (Foroudi et al. 2017, 239). Technological developments offer opportunities to SMES to achieve growth and innovation, which can be delivered through greater resources, and help SMES to attract and retain more customers (Foroudi et al. 2017, 242).

Technologies in marketing can be sorted into two groups: *must-have technologies* are those technologies which companies have to implement in order to maintain their existence on the market, most of the competitors have them and most of the consumers expect to find them. *Optional technologies* are technologies which can support everyday business and boost financial results, but are mostly used by large companies which can afford them. Standard marketing technologies include various technological solutions developed for marketing purposes, which most of today's

companies use, including: desktop website, live chat, e-Commerce platforms/web shop, social media marketing, search engine optimization, Pay-Per-Click advertising, Google display advertising, mobile website and web shop, mobile device applications, QR (quick response) codes, social media marketing for mobile devices, in-store Wi-Fi, video walls and in-store displays. Advanced marketing technologies imply the technologies which still many companies have not implemented, but which market leaders are already using, such as: mobile optimized websites and m-Commerce (mobile shopping) sites, 'Click & Collect' service, interactive digital video displays, beacon technology, security cameras with heat maps, sensors linked via Wi-Fi to consumers' mobile devices, *Near-Field Communication* (NFC) and *Bluetooth Low Energy* (BLE) linked to app on consumers' smartphones, CRM database on Cloud linked to consumers' smartphones for in-store ad targeting and linked to consumers' emails for invoice sending, outdoor interactive displays/signages, as well as m-Wallet POS payment solutions and applications, and e-Wallet payment solutions.

Marketing Channels

Marketing Managers in companies of all sizes are increasingly directing company's communication towards digital channels, meaning mobile and online. At the same time mainstream media (television, radio, newspapers and magazines) are slowly being put in second place because they are gradually losing their effectiveness (Bannor, Asare, and Bawole 2017, 343) and because new channels are relatively cost-effective compared to traditional ones and within reach of every business (SAS Software 2014). Traditional media are often too expensive and too complicated for an average (small or medium-sized) company. Digital marketing leveraging social media channels provides SMEs with a new innovative way to interact with customers, providing an alternative, cost-effective and attractive proposition (Foroudi et al. 2017, 236), a so-called 'online value proposition.' However, even more evident reason why companies move away from traditional marketing channels is because of the evident decrease in their effectiveness while new mobile marketing methods are getting more and more effective. New media is dominantly used to target younger population and traditional mass communication media will have more effect with older population (Bannor, Asare, and Bawole 2017, 352). Advertisers rely less on traditional media and more on Internet advertising, product placements, using of social media, buzz marketing, etc. (Kostić-Stanković

and Vukmirović 2018, 159). It is understood that companies don't fo-
cus all of their marketing activities in one channel and that the same
marketing message tends to be systematically driven through different
channels.

Successful marketing strategy will prioritize channels most used for
communication, direct contact and interaction with consumers and con-
sumer marketing will be directed through channels which are most con-
venient for the consumers and not the ones which are most convenient
for the company generating the message. Today, the consumers decide
by themselves which channels they wish to use and Marketing Managers
need to align their cross-channel communication programs with brand
messaging strategies that are consistent across consumer touch-points
(Payne, Peltier, and Barger 2017, 186).

Online media today is used to distribute all sorts of valuable infor-
mation to citizens, and not just marketing/sales messages. For an exam-
ple, it allows for health institutions to reach a wider audience and de-
liver health information and health-related issues to patients (Bannor,
Asare, and Bawole 2017, 342). Online as a must-have channel is a medium
through which various campaigns can be conducted which don't neces-
sarily have to do with marketing and/or sales campaigns but can address
large groups of population, educate them, motivate them to a certain ac-
tion and distribute valuable information which are relevant for various
aspects of their lives. However, even though online channel is the first
point of contact, consumers prefer to use the mobile channel because
smartphones and/or tablets are always within arm's reach even when con-
sumers are 'on the go.' Consumers use smartphones to gather information
anytime, anywhere, from multiple sources, and execute transactions in-
stantaneously, they are personal and handy (Mahapatra 2017, 930). That
is why mobile is becoming the number one marketing channel which is
slowly but surely replacing other traditional channels. Mobile shopping is
a natural extension of e-Commerce and has more advantages when com-
pared to e-Commerce, with accessibility, instant connectivity and access
to real-time information being some of them (Phong, Khoi, and Le 2018,
188). Since online and mobile marketing channel have a lot in common,
a lot can be achieved by combining these two channels. Considering that
desktop and mobile versions have been optimized and adjusted to be used
on various electronic devices, most of the service elements are the same:
website, web shop, social media networks, display ads, live chat, videos,
blogging platforms, email services, etc. The differential advantage of mo-

bile channel are mobile applications which in combination with new technologies have no limits.

In digital environment, marketing mix consists of five elements – besides product, price, place and promotion, the fifth element refers to people. People are an immensely important factor which drives digital marketing strategy, which is why it is essential for companies to take into account everything related to their consumers, the existing one or the potential ones. Today it is possible to gather and store personal consumer data in large databases, and the data collected allows the companies to shape their marketing strategies and tactics better than before. Such data includes consumers' personal data, purchasing patterns, details of purchasing transactions, favourite sales channels, purchasing history, list of complaints, and other demographic, economic, psychographic and behaviouristic characteristics of consumer segments. Smart management of this data will allow the companies to predict future purchases of each consumer segment and plan production, orders, procurement, sales volume, forecast revenues and profit. Marketing Managers need to know how to use the huge potential of big data and information technologies in order to collect data which is important for the company (da Gama 2012, 219) including data on consumers' attitudes and perceptions of the brand, perceived quality of service, appropriateness of prices, distribution channels, brand position compared to competition, brand awareness, etc. For an example, companies can design the optimal communication strategy based on consumer data extracted from their databases, afterwards choose the most appropriate channel and then personalize the marketing message to a particular consumer segment.

After conducting a market segmentation and a detailed analysis of consumer segments, a company will find out which segments recognize and use technology more and which technologies in marketing they value the most. Mobile channel is becoming the leading channel because it allows companies to get through to consumers directly, providing them benefits such as unique brand experience and greater real-time interaction, which will subsequently result in greater brand recognition and higher brand loyalty on consumer side. Even though there are some companies which are not able to successfully integrate digital online and offline consumer experiences (Hilken et al. 2018, 510), most of today's large companies implement a multi-channel marketing strategy in order to deliver a more persuasive message to consumers. Today's consumers are ready to embrace the next level newsletters as main direct marketing tool, and

would like direct mailing to be high-tech, more useful than it is and not so generic. Direct mailing is still considered the best tool for reaching the consumers directly, especially *Generation X* consumers (born approximately 1965–1979) who prefer email communication in general. However, it has a slightly different effect on older and younger generations of consumers. For an example, *Generation Y* consumers, so called 'The Millennials' (born approximately 1980–1994), prefer to be reached by text messages rather than by emails, so email newsletters will not have the same impact on them. Another modern marketing channel is outdoor advertising on interactive digital displays and signages in all sizes. Since *Generation Z* consumers (born approximately 1995–2015) prefer communication using photos, videos and other visual media, it is understandable why interactive digital displays appeal to them the most and why we can expect to see them dominating the streets and shopping centres in the future.

The efficiency of new technologies in retail marketing can be proved in real time. New technologies offer a range of possibilities for interacting with consumers at every moment while they are inside of a 'brick & mortar' store. Technologies such as indoor positioning systems based on BLE beacon devices and NFC offer a wide range of opportunities for reaching consumers via brand's mobile application in consumers' smartphones. Digital technologies allow the consumers to connect to Internet through their mobile devices inside of the physical store, which has been changing the way they shop, the way they gather information about the products, and their entire in-store shopping behaviour (Hagberg, Sundstrom, and Egels-Zandén 2016, 697). It is a fact that 70% of consumers use smartphones while in the store and 79% of consumers use smartphones to help them with shopping (Prismaxel 2017). Tech-savvy consumers bring their smartphones to every shopping as a shopping companion (StarMobileSolutions 2013).

If a retailer wants to provide a more enjoyable and easier shopping experience to consumers, more attention will have to be paid to consumers' needs and suggestions on what should be improved in the stores. Some consumers probably want to spend more time in-store but are lacking fun and motivational elements so they leave the store disappointed. Consumers are ready for next level technologies so retail stores which use newest and more interesting technologies are perceived as more attractive. Consumers show an increasing desire to have a more engaging experience while shopping because they have high level of expectations to-

wards technology-based innovations able to support them while entertaining them at the same time (Papagiannidis et al. 2017, 166). Also, in order for the retailers to be able to upgrade consumers' satisfaction and boost own sales results, they will have to make an effort to find out why they use mobile devices when they are physically inside their store and what technology they would like to have at disposal at that moment. Except for the goal of reaching the consumers and offering them a certain product or a service to buy, the retailer might prefer to invest efforts in providing them information and by doing so, assist them to make a purchasing decision. Perhaps some consumers would like the product tags (on clothes or shoes) to have QR codes which would help them. For an example, after scanning the tags with their mobile app, the app would inform them if the product is available in other sizes, what quantity of the same product is available in warehouse, or if the product can be bought at a lower price in another shop of the same brand. This will make the consumers happy because it will help them find the information they are looking for quickly and without having to ask the sales personnel for assistance, or without having to wait in line, which will save them time. Other group of consumers will appreciate interaction via their mobile device – for an example, receiving a greeting message when they enter the store or user specific ads sent to their messaging app as they stroll down the store aisle. If retailers combine Cloud service, *Internet of Things* (IOT) technology, mobile applications, positioning systems and smart home technologies, systems and services (under the assumption that consumers are using them), retailers' marketing messages will be consistent and seamlessly delivered to consumers.

In retail, in-store Wi-Fi and digital video displays have become a general standard and are the basics of what all consumers expect to see when they enter the store. Stores which don't have Wi-Fi are not able to interact with consumers via their mobile devices and because of that the total buyer experience is perceived as less in quality in the eyes of consumers. Still, this doesn't mean that the retailers are not investing in advanced technologies for their stores because some technologies go unnoticed by consumers, but are highly valued by retail managers because of their usefulness for the business. Retail store technology, for instance, beacon technology allows real-time monitoring of products on the shelves, which helps the retailer to find out which products are most popular among the consumers, and to place new orders on time to keep up with the demand and avoid possible unexpected stock-out. Some retailers are al-

ready connecting consumers' mobile devices to CRM database via NFC and BLE. The system can be set up in a way that the database 'communicates' directly to with the consumer, and that no one else has access to their personal data. In CRM database customers' purchasing history can be found, customers' preferences, regular shopping items (or shopping list), filled out satisfaction questionnaires, complaints list, contact information as well as their purchasing patterns. Having at disposal databases, marketing decision support systems, applications and software can result with long-term positive effects to marketing function and business because they allow synthesis and analysis of marketing data and gathered consumer data (Prismaxel 2017), as well as creation of comprehensive reports on market trends. Without databases, operating and coordinating marketing activities would be much more difficult for the company.

Next, there are technologies such as sensors which monitor and analyse consumer buying behaviour and patterns of their movement while they are in store. General visitor data is collected without the consumers knowing about it, such as their age group, sex, average duration of one visit to the store, isles (product categories) which certain consumer segment prefers, their way of moving around the shop, where they spend most time, how much store do they cover during one visit, how long do they wait in line, when the consumer again visited the shop and the time between two visits, etc. The idea is to collect the data on consumer behaviour and to adapt future marketing activities and shelf merchandising activities accordingly (Rieland 2013). Retailers have been collecting such data for the past five years, inspired by similar data on consumer behaviour which is continuously being collected in the online channel. Other technologies used for the same purpose include security cameras which create heat maps and in this way identify the best in-store locations to place products and/or product display stands, and which to avoid since they appear to be 'blind spots' for the consumers (Rieland 2013). Except for devices which allow customers to perform automatic checkout, there are also technologies that make it easier for customers to locate specific products quickly in the store (Mosquera 2017, 66).

Consumers like the combination of online/mobile channel and retail channel because of the convenience it provides them. Many retailers have adopted delivery innovations such as buy-online-pickup-in-store (Lim, Jin, and Srai 2018, 308), fashionably referred to as 'Click & Collect' service. This e-Commerce/m-Commerce & retail trend has been readily welcomed by millions of consumers around the world because consumers

TABLE 1 New Marketing Technologies per Channel(s)

Marketing channel(s)	New technologies in marketing
Mobile	m-Commerce, Mobile applications, mobile optimized websites and web shop sites
e-Retail	e-Commerce platform (web shop), e-Wallet payment solution
Online/Retail	'Click & Collect' service
Retail	Interactive digital video displays, beacon technology, security cameras with heat maps, CRM database on Cloud linked to consumers' smartphones for in-store ad targeting
Retail/Mobile	NFC and BLE linked to app on consumers' smartphones, sensors linked via Wi-Fi to consumers' mobile devices, m-Wallet POS payment solutions
Direct	CRM database on Cloud linked to consumers' emails for invoice sending
Outdoor	OOH interactive displays/signages

like to search for information about the products online when they have time and order them from home, and then pick them up later at the retail store's point of collection. After finding the best offer for the product which can be bought in a particular store in their city, consumers will also check product reviews, and the research shows that 88% of them will take action within the same day, be it calling or visiting the store (Star-MobileSolutions 2013). When it comes to mobile payments applications, consumers value more the usefulness which this payment solution offers, while at the same time, it doesn't have to be easy to use, and they will still use it because of its practicality (Aslam, Ham, and Arif 2017, 171). Digital retailing, also called Internet retailing, has become a multi-billion pound industry which continues to experience double-digit growth rates, and is characterized by intense competition and consumers demanding high-quality service (Hooley et al. 2017, 352). There are many digital retailers such that engage only in online trading and are therefore referred to as *e-tailers.* Today's e-tailers place a strong emphasis on delivering a superior *e-service* to online consumers which includes the new payment solution such as digital wallet or *e-Wallet.* Also, one of the main concerns is how to communicate effectively by conveying a lot of information (such as product specifications) in a concise and relevant way and in a consumer-friendly format (p. 353).

In order to be able to implement specific new marketing technologies

in chosen marketing channel(s), a company has to have at disposal certain level of technological prerequisites. Table 1 shows a brief overview of new technologies in marketing which are used in new marketing channels and which present the new way of doing business. Even though these technologies may still be perceived as futuristic by many business owners or company managers, in several years from now some of these technologies will be considered outdated and will be replaced by even newer technologies, which are not yet on the horizon. Another option is that these technologies will become the basis which will only get more and more upgraded in the upcoming years. In any case, companies which are resisting to implement these new technologies, are only hurting their business in the long run by doing so.

Marketing Metrics

When consumers use digital channels, they leave behind a huge trail of data (sas Software 2014). For an example, social networking sites collect large streams of detailed user data, and to be able to understand it, they deploy data mining and data analytics tools. These technologies allow for various behavioural patterns to be discovered and users to be served with tailored, localized content which is more relevant to them (Jones 2017, 915). When consumers visit certain website or search for certain terms by using certain search words, their online activity is recorded, stored and analysed. The term 'analytics' often involves finding patterns and correlations in the data which have to do with consumers, their responses or purchases, in order to produce a deeper understanding of the consumers (Stone et al. 2017, 218). Besides the latter, companies today have at disposal a variety of marketing analytics tools for they use for tracking of daily, weekly, monthly, quarterly and yearly online and mobile marketing performance at chosen markets. A company which integrates marketing analytics tools and techniques in its strategy, has the advantage of better forecasting its cash flow dynamics and making necessary adjustments of marketing efforts in a timely manner. If company's cash flow is at a critical point, sales needs to be boosted in a rather short period of time in order to attain financial liquidity. In such situation, marketing team will have to choose the best tactics and direct them towards the right target group and adjust certain elements of marketing mix. If the company has readily available actual data about the market, previously gathered and systemized, it will know which tactics to use, which sales/distribution channels to use, which prices to set and how to reach the consumers in the best possible way.

Often, investment in marketing is perceived as risky investment due to insecure return on investment from marketing activities. Because of that, it is not possible to determine what effect on sales increase marketing activities actually have. In spite of that, modern Marketing Managers manage marketing metrics and marketing investment better than the previous generation. At the beginning of each calendar year many of them make reservations of budget for measuring of marketing and determining the effectiveness of marketing activities because by doing so, they ensure credibility of marketing business function (Marshall 2007). Development of marketing strategy which will motivate consumers to buy a certain product, decisions on optimal combination of communication channels, and profitability calculations should be based on figures. In order to ensure profitability for the company, customer portfolio has to be analysed in detail and decisions on marketing investment should be made in a strategic manner (Beasty 2007). It is recommended that once in a while companies do a critical review of achieved marketing goals and marketing profitability and to examine market approach strategies. This is done by marketing effectiveness review, regular marketing activities control and analysis, and by auditing of the marketing plan. For Marketing Managers and company management, the areas of marketing profitability and marketing effectiveness are the main marketing areas of interest (Ferrell and Hartline 2008). A company can learn about the effectiveness of a marketing strategy by analysing marketing costs and by comparing sales results with related marketing costs and profit margins. By doing this, Marketing Managers will be able to allocate available financial funds for future marketing activities in a more adequate way.

There are many standard metrics which can be used to measure the effectiveness of offline marketing activities. The most important marketing metrics which today's companies use are: relative market share, return on (marketing) investment, relative price, product availability, ad reach or campaign reach, total revenue per month, market share, total number of consumers, relative perceived quality, relative price, customer retention rate due to brand loyalty, customer satisfaction, customers' complaints (Farris et al. 2014; Belch and Belch 2015), brand awareness, product availability (Hooley et al. 2017), profitability and sales growth (Faridyahyaie, Faryabi, and Noubar 2012). With the rise of digital technology and digital marketing, a variety of new marketing metrics have also appeared, including: traffic on website, number of unique visitors, number of visits, average time on site, webpage eye tracking, average revenue per lead, total

TABLE 2 Some of standard marketing metrics vs. some of new marketing metrics

Standard marketing metrics	New marketing metrics
Relative market share	Traffic on website
Return on (marketing) investment	Number of unique visitors
Relative price	Number of visits
Product availability	Average time on site
Ad reach or campaign reach	Webpage eye tracking
Total revenue per month	Average revenue per lead
Brand awareness	Total revenue per month
Total number of customers	Number of impressions
Customer retention rate	Advertising exposure time
Customer satisfaction	Click-rate
Customer complaints	Cost per conversion

NOTES Adapted from Farris (2014, 13–20) and Belch and Belch (2015, 521).

revenue per month, number of impressions, advertising exposure time, click-rate, conversion rate, cost per conversion, etc.

Marketing Managers must have a clear understanding of the potential of information technologies and the best ways to use them, in order to gather the relevant data which is important for company's marketing (da Gama 2012, 219). Collected information about consumers and from the consumers, should be analysed and synthetized into 'easy to use' reports which will guide the management in decision-making process. The principles of big data allow the companies today to integrate all the collected data and use sophisticated analytics to generate consumer insight (Stone and Woodcock 2014, 8–9). The term 'big data' refers to the ability to collect, store and use massive volumes of data, some of which arises from increased use of mobile technology and social media (Stone et al. 2017, 223). Thanking to the widespread and continuous utilization of Internet as the main platform for all digital marketing channels, marketing dashboard has been developed. This tool enables the analysis of online activities marketing metrics and a superb overview of them all gathered in one place. Standard marketing metrics include a number of total website visitors, the ratio of number of visitors who clicked on an ad and the number of visitors who saw the ad, the ratio of visitors who made a conversion/purchase transaction online in a certain period and the total number of visitors in that period, and other analytics which can be

used to measure effectiveness and strength of implemented marketing tactics. Another advantage of online marketing is the fact that it allows even small companies which don't have many employees, large shops nor modern IT equipment, to conduct marketing activities in certain digital channels for small amount of investment and successfully measure return on investment for these activities.

Beside the mentioned activities, Internet allows the companies the insight into competitive digital marketing activities and comparison of marketing metrics through a variety of available marketing reporting tools which analyse the content on websites of interest. Many companies would find it difficult to imagine implementing their digital marketing strategies without online marketing dashboards which they use on a daily basis to monitor activities that take place online. Marketing trends and data analytics platforms such as Google Analytics, Jumpshot, Similar-Web, SEM Rush or Klipfolio are excellent for tracking of digital marketing performance through statistical data and trends overview, key performance indicators, share, ratios, and various mathematical calculations, according to company's needs and preferences. Additionally, these tools allow Marketing Managers understanding of marketing performance in a visually attractive and simple way by presenting the data in many different (pre-set) graphic options. Owing to them, Marketing Managers have a clear knowledge of company's position when compared to the competition, which serves them as a basis for making decisions on appropriate marketing tactics and channels in the shortest period of time. All the data which refers to online marketing are automatically found, collected and analysed by the software in a matter of seconds. However, for offline channels there isn't a tool or a dashboard which would allow such easy collection of data in a single place, and marketing metrics for offline activities often require Marketing Managers to have extensive knowledge to be able to interpret them correctly and accurately. Often such data cannot be gathered quickly, easily and at low expense of company's resources so the companies usually outsource the measurement of offline marketing activities performance to specialized agencies or companies for measurement and data analytics such as The Nielsen Company. It is a fact that traditional marketing is getting less effective by the minute.

Practical Implications

For the past few years all companies have been undergoing a digital revolution, a process of transforming their businesses because the outside

market factors request it. Marketing dashboards provide a convenient way of tracking marketing investment, monitoring market share, measuring scores in comparison to industry average results, and receiving a numerical feedback about implemented marketing tactics in the form of the return on investment. However, if companies want to understand what makes the strategies of their competitors so successful, they need to pay more attention to the psychology behind consumer behaviour. In the future, it will not be enough for marketing to ensure only evident impact on business, but its progress will be mostly noticeable in customer retention. Successful brands of the future will make it their priority to continuously keep up with ever changing consumer wants and expectations, find out consumers' actual and latent needs, and make an effort to investigate the underlying beliefs which drive their actions and decisions. Currently there is a need to raise the awareness of companies to the human aspect of marketing communication and brand interaction since people are an integrated part of digital marketing strategy of the present and the future. In the upcoming years the entire concept of running a business just to achieve profit will have to be changed because the consumers are what keeps any business going so they should be approached with more respect and not be treated just as statistical figures on a marketing dashboard. Needless to say, if the consumers feel valued by the brand, they will return and bring with them other, new consumers. It all comes down to the human note in doing business and the technology today is what can help leverage a brand-consumer relationship to the next level and make the companies thrive. In the future, integrated multi-channel marketing communications will include a seamless flow of company's communications through various inter-connected channels. In a decade from now, revolutionary marketing innovations combined with technologies that are yet to be developed, will have a significant effect on society's behaviour and consumers lifestyle. We can expect future technological trends to make buyer behaviour incomparable to what it is today, especially considering the yet unknown consumer behaviour patterns which the new generation of consumers will develop, together with their future expectations from the brands as well as their marketing mix.

Conclusion

In this paper new marketing technologies and new marketing channels in modern-day business are analysed, together with the possibilities of measuring marketing performance in digital environment. New channels,

such as online and mobile, allow the companies increased transparency of their business and online marketing activities. A successful business model at 21st century marketplace includes recognizing the value of new technologies in marketing and implementing them together with progressive, modern marketing know-how, which will allow companies to achieve better business results.

Not many books and scientific articles had been written on similar subject. However, it is noted that this topic is becoming an interesting research area to other scholars around the world. Previous research shows that in the previous 15–20 years' timeframe, Marketing Managers and retailers have observed how modern digital technologies influence the behaviour of consumers, their perception of the brand, their purchase intention and their overall shopping experience. When compared with the research of other authors who mostly focused on a specific subtopic of digital technologies or marketing channels, this paper offers a bird's view of new marketing technologies in regards to new marketing channels, by mentioning all the relevant terms and by outlining the obvious convergence of digital marketing discipline with technology, IT, and ICT. Since managing of digital marketing of today's companies means among other the collection and interpretation of big data, the topic of marketing metrics had to be explained. This paper offers easy comparison of traditional marketing metrics with the new ones which refer to digital marketing activities (online and mobile ones).

Considering that technology is continuously moving forward, companies which invest their financial resources in up-to-date technological solutions, are bound to stay ahead of their competitors who are not as quick to adapt. Eventually, they will also have to embrace new technologies if they want to remain in business. With the technology advancing so fact, companies don't have a choice but to digitize and adapt, and the sooner they do it, the better. In order to successfully reach the consumers, all companies have to update their outdated technologies and adjust their integrated marketing communication in all the channels, including the new ones. While the choice of communication channels will affect to which extent will the company stand out from competitors, implementation of these new technologies will surely contribute to better marketing performance and better business results. Companies which own sophisticated technologies are setting a new standard of doing business and are acting as benchmarks for other companies in their markets and industries.

Paper limitations include a lack of books and scientific articles on the

subject of new technologies in marketing, new sales/marketing /distribution channels and new marketing metrics. Further research should be made on comparison of consumers' virtual shopping experience with physical shopping experience. In order to further examine the implementation of new marketing technologies, new channels and new metrics and their business impact, a suggestion is to conduct on-field research on a sample of companies from different industries. Business success of these companies should be monitored through a longer period of time and then compared to those of the companies which resist the digital transformation and prefer to use traditional marketing channels and metrics instead.

References

Ampountolas, A. 2018. 'Peer-to-Peer Marketplaces: A Study on Consumer Purchase Behaviour.' *Journal of Hospitality and Tourism Insights.* https://doi.org/10.1108/JHTI-05-2018-0028

Aslam, W., M. Ham, and I. Arif. 2017. 'Consumer Behavioral Intentions towards Mobile Payment Services: An Empirical Analysis in Pakistan.' *Market-Tržište* 29 (2): 161–76.

Bannor, R., A. K. Asare, and J. N. Bawole. 2017. 'Effectiveness of Social Media for Communicating Health Messages in Ghana.' *Health Education* 117 (4): 342–71.

Beasty, C. 2007. 'Predicting Profitability: CRM CRM.' *Customer Relationship Management* 11 (11): 18–23.

Belch, G. E., and M. A. Belch. 2015. *Advertising and Promotion: An Integrated Marketing Communications Perspective.* 10th ed. New York: McGraw-Hill.

Bhasin, H. 2018. 'Marketing Channels.' https://www.marketing91.com/marketing-channels

Conversation, LLC. 2012. 'Marketing 2020: The Future of Advertising.' https://www.youtube.com/watch?v=rw-tlt3AnIo

da Gama, A. P. 2012. 'Marketing Audits: The Forgotten Side of Management?' *Journal of Targeting, Measurement and Analysis for Marketing* 20 (3–4): 212–22.

Digital Marketing Institute. 2016. 'Rob Farrell Talks Digital Marketing Trends 2017.' https://www.youtube.com/watch?v=Atfs5sUyes4

Faridyahyaie, R., M. Faryabi, and H. B. K. Noubar. 2012. 'Identifying Marketing Effectiveness Metrics (Case Study: East Azerbaijan's Industrial Units).' *Poslovna izvrsnost* 6 (2): 47-57.

Farris, P. W., N. T. Bendle, P. E. Pfeifer, and D. J. Reibstein. 2014. *Marketing metrics: The Definitive Guide to Measuring Marketing Performance.* 2nd ed. Upper Saddle River, NJ: Pearson Education.

Ferrell, O. C., and M. D. Hartline. 2008. *Marketing Strategy.* 4th ed. Mason, oh: Thomson/South-Western.

Foroudi, P., S. Gupta, A. Nazarian, and M. Duda 2017. 'Digital Technology and Marketing Management Capability: Achieving Growth in smes.' *Qualitative Market Research: An International Journal* 20 (2): 230–46.

Hagberg, J., M. Sundstrom, and N. Egels-Zandén. 2016. 'The Digitalization of Retailing: An Exploratory Framework.' *International Journal of Retail & Distribution Management* 44 (7): 694–712.

Hilken, T., J. Heller, M. Chylinski, D. I. Keeling, D. Mahr, and K. de Ruyter. 2018. 'Making Omnichannel an Augmented Reality: The Current and Future State of the Art.' *Journal of Research in Interactive Marketing* 12 (4): 509–23.

Hooley, G., N. Piercy, B. Nicoulaud, and J. Rudd. 2017. *Marketing Strategy & Competitive Positioning.* Harlow: Pearson Education.

Jones, S. 2017. 'Doing Social Network Ethics: A Critical, Interdisciplinary Approach.' *Information Technology & People* 30 (4): 910–26.

Kostić-Stanković, M., and V. Vukmirović. 2018. 'Tendencies in Contemporary Marketing Communication Caused by Technological Preferences of Generation Y.' *Hum* 13 (19): 157–82.

Leuman, Anne. 2018. '4 Significant Marketing Channels You Should Adopt in 2018.' https://www.toprankblog.com/2017/11/emerging-marketing-channels

Lim, S. F., X. Jin, and J. S. Srai. 2018. 'Consumer-Driven E-Commerce: A Literature Review, Design Framework, and Research Agenda on Last-Mile Logistics Models.' *International Journal of Physical Distribution & Logistics Management* 48 (3): 308–32.

Mahapatra, S. 2017. 'Mobile Shopping Among Young Consumers: An Empirical Study in an Emerging Market.' *International Journal of Retail & Distribution Management* 45 (9): 930–49.

Marshall, J. 2007. 'Are Finance and Marketing Getting Closer?' *Financial Executive, Business Premium Collection* 23 (2): 46–8.

Mosquera, A., C. Olarte-Pascual, E. Juaneda Ayensa, and Y. Sierra Murillo. 2018. 'The Role of Technology in an Omnichannel Physical Store: Assessing the Moderating Effect of Gender.' *Spanish Journal of Marketing* 22 (1): 63–82.

Papagiannidis, S., E. Pantano, E. W. K. See-To, C. Dennis, M. Bourlakis. 2017. 'To Immerse or Not? Experimenting with two virtual retail environments.' *Information Technology & People* 30 (1): 163–88.

Payne, E. M., J. W. Peltier, and V. A. Barger. 2017. Omni-Channel Marketing, Integrated Marketing Communications and Consumer Engagement: A Research Agenda. *Journal of Research in Interactive Marketing* 11 (2): 185–97.

Phong, N. D., N. H. Khoi, and A. N.-H. Le. 2018. 'Factors Affecting Mobile Shopping: A Vietnamese Perspective.' *Journal of Asian Business and Economic Studies* 25 (2): 186–205.

Prismaxel. 2017. 'Mobile Marketing/Digital Marketing Trends 2018.' https://www.youtube.com/watch?v=FX9GsblIn9k

Rieland, R. 2013. 'How Are Stores Tracking the Way That We Shop?' https://www.smithsonianmag.com/innovation/how-are-stores-tracking-the-way-that-we-shop-180948271

sas Software. 2014. 'What is Digital Marketing and Why It Matters – The sas Point of View.' https://www.youtube.com/watch?v=_PWqIMQux-g

StarMobileSolution. 2013. 'The Mobile Movement is Changing Consumer Behaviour.' https://www.youtube.com/watch?v=p2Pe8Bl5b14.

Stone, M. D., and N. D. Woodcock. 2014. 'Interactive, Direct and Digital Marketing: A Future That Depends on Better Use of Business Intelligence.' *Journal of Research in Interactive Marketing* 8 (1): 4–17.

Stone, M., E. Aravopoulou, G. Gerardi, E. Todeva, L. Weinzierl, P. Laughlin, and R. Stott. 2017. 'How Platforms Are Transforming Customer Information Management.' *The Bottom Line* 30 (3): 216–35.

Vend. 2018. 'A Round up of Our Top 12 Forecasts for 2018 and beyond.' https://www.vendhq.com/2018-retail-trends-predictions