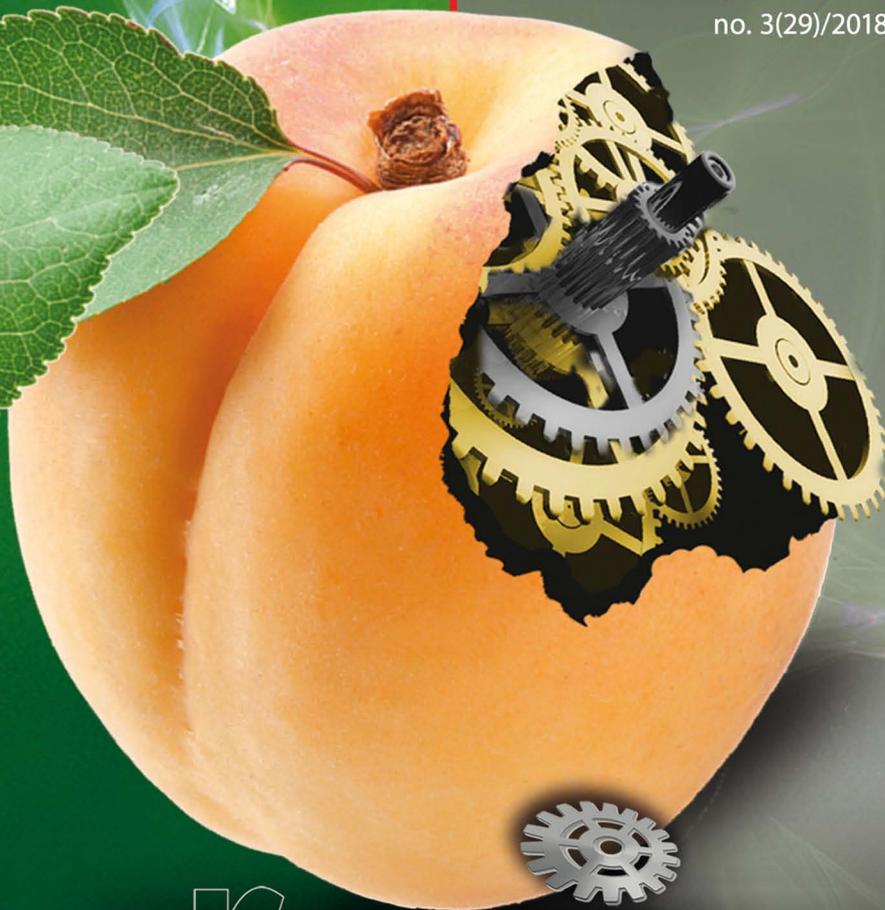


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THE USE OF MOBILE APPLICATIONS BY AIRLINES IN THE PROCESS OF MARKETING COMMUNICATION



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Summary

The airline industry constitutes a challenge for marketing specialists due to high dynamics of provision of information. Airlines strive to communicate more and more effectively with the passenger. The specific character of the branch also constitutes a challenge for mobile application developers, who update them more often than applications of companies from other branches.

The goal of this article will be discussing the processes of building relations, efficient communication with clients on the market of passenger airline services using mobile applications. Up till now this problem hasn't been the subject of both literature studies and empirical research. Source materials for the work will be available literature on the subject, own analyses based on secondary sources, as well as empirical studies conducted among passengers.

Keywords: mobile marketing, mobile applications, airlines

Introduction

The goal of this work is an analysis of airlines' marketing activities related to the utilization of mobile applications. In the following analysis also an attempt was made to find an answer to the question, whether mobile applications will replace the traditional means of marketing communication used by now, including newsletters.

In this article the following thesis was formulated: marketing communication of airlines will be based mainly on the utilization of new media. Another two theses were formulated. They will be verified by means of author's survey conducted on the group of passengers flying at least twice a year — both on business and privately.

- 1) Passengers choose airlines with a rich offer of mobile applications.
- 2) Passengers regularly control their bookings in real time.

The source basis for the work is available literature on the subject, secondary sources, own analyses, research and studies conducted by Polish and foreign research institutes. Own surveys were conducted in 2013 and 2017 by means of the CAPI method on samples of 116 and 108 respondents. The results of research point to the direction of marketing activities, but are not representative.

Marketing communication of airlines

The term of "marketing communication" was first used in the 1980's along with the earlier used term "promotion" constituting an element of marketing-mix.

Marketing communication is regarded as one of the most important elements determining the establishment and later the maintenance of relations of the company with clients and other entities from the market environment.

D.H. Hoffman and T. Novak in the 1990's proposed simplified models which started a discussion about the forms of developing

marketing communication. The system of marketing communication includes concepts based on three models (Wiktor, 2001, p.5-6):

- model of interpersonal communication,
- model of mass communication,
- model of communication in hypermedia computer environment.

Picture 1. Marketing-mix in 7P version



Source: Own materials.

In literature on the subject marketing communication is defined as a system of signals emitted from various sources to the marketing environment and a system of signals collected by a company from its environment (Mruk, 2004, p. 17). Information obtained from the environment should serve a company in the process of building an offer satisfying the needs and preferences of purchasers and other business partners. It is also necessary to point out that information conveyed to the environment influences the knowledge, attitudes and behaviours of the recipients, which eventually may build demand for products (Wrzosek, 2012, p.217).

In contemporary marketing it is important to build long-term relations with clients and other entities from the market environment of a company. Bilateral, integrated marketing communication plays a key role in the process of creating relations and thus is crucial for the success of the concept of relationship marketing in a company. T. Duncan and S.E. Moriarty have also concluded that business relations cannot be formed without communication.

Efficiency illustrates the relationship between the goals of marketing communication and the achieved results. It measures the degree to which communication activities influenced the achieved results (Nowak, 2001, p.143–150). What may also be responsible for the potential success, or failure of these activities is message incomprehensible for the recipients, contained in the creation, or the wrong choice of media (Czarnecki, Korsak, 2000, p.17–28).

For some time there have been voices that the period of marketing from the perspective of communicating has arrived. This means skilfully predicting the preferences of narrow groups of clients and reaching individual clients and at the same time greater care about the efficiency of marketing ventures. M. Kowalska concludes that instead of criteria typical of mass marketing (e.g. recognisability of a brand, market share) diverse criteria of a qualitative character, measured with the economic efficiency of these activities (e.g. return on spending on marketing) are becoming a measure of success in the strategy of marketing communication and the totality of marketing activities (Kowalska, 2007, p.27).

Mobile marketing

Companies from the aviation sector use mainly mobile marketing, which according to the definition presented by Mobile Marketing Association may be defined as a "collection of practices which enable organizations to communicate and cooperate with users in an interactive way by means of any mobile device (MMA Global, 2018). The use of mobile marketing also allows companies to reach other segments of the market and makes it possible to facilitate communication with passengers and to create an additional sales channel.

Another definition of mobile marketing is presented by Scharl, who assumes that this kind of marketing uses wireless medium in order to provide in the right place and time personalized information which promotes products and services delivering benefits to all stakeholders. (Scharl, Dickinger and Murphy, 2005, p.159).

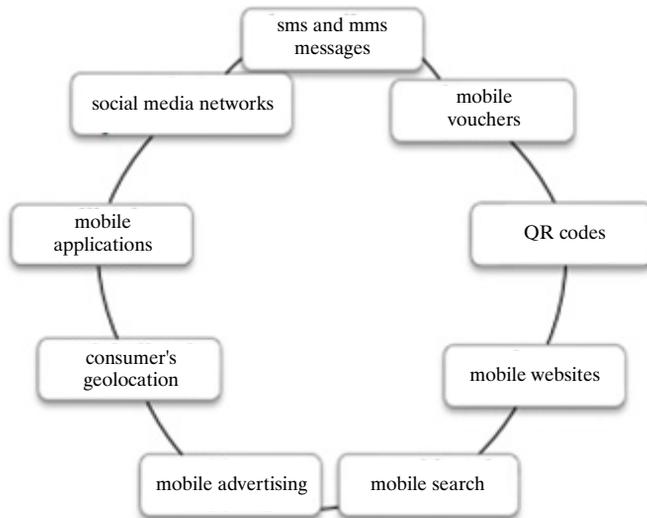
The launch of iPhone on the market in 2007 and the popularization of smartphones caused a decline of popularity of text messages (SMS) and a growth of popularity of mobile applications (Prażat, 2013, p.169).

The use of mobile marketing is associated also with limitations. What is regarded as one of the most important barriers are limited resources of mobile versions of Internet websites, as well as insufficient visibility of advertising formats (Baranowska -Skimina, 2014).

A collection of the most important mobile marketing tools is presented on the following picture.

Mobile marketing in the sector of air transport uses smartphones and tablets for conducting promotional and advertising campaigns. More and more airlines provide their passengers also with additional contents such as: free e-books, press and multi-media. There are the following mobile marketing tools: mobile applications, mobile pages, photocodes (QR code), sms/mms marketing, geolocation, enhanced reality, mobile advertising and mobile kiosks.

Picture 2. Basic tools of mobile marketing



Source: J. Wyrwiz, Aktywność marki miasta w obszarze marketingu mobilnego, *Marketing i Zarządzanie*, nr 4, p. 249.

Table 1. Differences between mass marketing and mobile marketing

Features	Mass marketing	Mobile marketing
Kind of recipient	All current and potential users of a product	All current and potential users of a product owning mobile , devices who have agreed to receiving notifications
Communication channel	Mass media	Smartphones, tablets, laptops
Content of the message	Text, voice, video in rich form	Text, voice, video in limited space and with limitations arising from the speed of data transfer
Recipient's engagement	Low	High
Degree of adjustment to the location of the recipient	Low	High
Possibility of measuring and monitoring the reaction	Low	High
Time and place of contact with the client	Limited	Unlimited

Source: E. Frąckiewicz, Rola marketingu mobilnego w rozwoju przedsiębiorstwa, *Studia i prace Wydziału Nauk Ekonomicznych i Zarządzania*, nr 39, T. 2, Szczecin 2015, s. 413.

The above table shows that mobile marketing is characterized by personalization and that it also requires the engagement of the recipient. This kind of marketing makes it possible to measure and monitor reactions and to conduct current satisfaction surveys. Unfortunately, in its case there is also the risk that not all contents will reach the user due to limited speed of mobile data transfer. Currently offered packages of mobile Internet are big and allow playing multi-media. Access to public wireless networks has also become common. However, due to low level of data protection, using this kind of connection should be limited to public websites and at the same time the use of banking services, or personalized accounts e.g. on the websites of airlines, should be avoided.

Social media

Social media is a tool supporting the implementation of business goals of companies managing airports. Up till now it was mostly airlines that invested in online communication. Meanwhile, initiatives of airports in social media contribute to the identification of recipients and next to working out an appropriate marketing strategy for the purpose of building a competitive advantage (Iwińska-Knop and Szymczak, 2017, p.313).

Social media give companies from the air transport sector possibilities of individualization of the process of marketing communication and communication with consumers on the market resembling a dialogue, which have been unknown until now.

Social media differ from traditional media of mass character such as e.g. press, radio, television, as they are based solely on digital communication channels. However, it is necessary to remember that social media cannot be just a formal element of the marketing plan, but should be an integral part of brand, airport and reputation management. It is important to learn the opinions of passengers who are the target of the offer (Airport Social Media Marketing — Advanced 2017).

Practicians name fifteen ways of using social media for promoting a company. The main one among them is the application of content

curation. Publishing posts containing a big dose of theoretical and practical knowledge constitutes added value for the readers.

A. Kaplan and M. Haenlein presenting the essence of social media say that they constitute a group of applications allowing the creation and exchange of contents generated by users, which are based on the ideological and technological foundations of Web 2.0. (Kaplan and Haenlein, 2010)

Social media enable direct and open communication between the airline and the passenger. Carriers offer not just a problem-solving platform, but also allow the passengers to post information useful for other passengers (Social Media for Airline Industry, 2013).

Travelers publish their own experiences, give photographic accounts and express their opinions on the subject of the services offered by carriers.

In association with the growth of the global number of people using social media such as: Facebook, Twitter, Youtube and others, the possibility of reaching a large number of current and potential passengers is opening up to airlines.

There is also no doubt that the most efficient way of raising brand awareness is using word-of-mouth marketing. Social media stimulate viral marketing and enable airlines to generate leads.

Air carriers identify subtle changes on the market and display inclination to invest in the latest technologies, creating a competitive advantage this way.

Surveys of the activity of airlines on social media portals (Social Media Customer Service in the Travel Industry, 2014) are also conducted regularly. American Airlines responds to posts on Twitter faster than any other airline. The company needs on average 12 minutes to respond to posts. At the same time KLM is the most active company in terms of publishing new posts on Facebook. The company publishes on average 353,82 posts per month.

Marketing communication on the market of air transport services

The speed of conveying information plays a major role in the development of the sector of air transport services. It is also important to create and stimulate continuous interactions between the airline and the passenger. It is also necessary to create emotional and business

relations constituting an example of conscious and consistent strategy of activity (Iwińska-Knop and Szymczak, 2017, p.315).

What plays a particular role in the aforementioned strategy of activity is the communication policy, which includes a whole spectrum of instruments of influence on the client, both standard and online instruments (Conrady, Fichert and Sterzenbach, 2013, p.209). The latter are changing the existing model of communication typical of mass media, creating new quality based on dialogue and personalized approach to the client. Profiles in social media portals are replacing client service offices enabling clients to get in touch with company's employees faster, as well as an exchange of opinions between other clients of the company (Brzezińska-Waleszczyk, 2015). Social media have transformed marketing from a monologue to multilogue, in which it is not just mutual contact between the company and clients, but also contact between clients, as well as contact between client, company and the whole community that are possible (Falls and Deckers, 2013). The contemporary market is changing into an environment of low trust. As a result, consumers trust other consumers who belong to the social network more than they trust companies and experts (Kotler, Kartajaya and Setiawa, 2010, p.47).

Table 2. Forms of communication on the example of the air transport industry

	Direct contact	Indirect contact
Non-personalized communication	<ul style="list-style-type: none"> • direct mailing for members of airline loyalty programmes, • e-mail message to registered users of Internet website, • response to a complaint submitted by a client. 	<ul style="list-style-type: none"> • advertising campaign in public magazines, • tv advertising of the first flight of Airbus 380, • banner advertising on portals, • sponsoring of sports and cultural events, • reports in media.
Personalized communication	<ul style="list-style-type: none"> • personal ticket sale, • phone conversation with an agent of an airline call center, • presentation of financial results, • events ("talks at a fireplace", celebrations for employees). 	<ul style="list-style-type: none"> • opinion leaders in big companies, • opinion leaders as frequent fliers.

Source: R. Conrady, F. Fichert, R. Sterzenbach, Luftverkehr — Betriebswirtschaftliches Lehr — und Handbuch, wyd. Oldenbourg Verlag Monachium 2013, p. 454.

Airports implement mobile marketing to boost passengers' experiences and their satisfaction with the use of airport infrastructure (Florido-Benitez, 2015, p. 223).

The availability of applications created by airports allows travellers to effectively manage time, giving them access to messages in real time (Florido-Benitez, 2016, p. 12).

Mobile applications in the marketing communication of airlines

Mobile applications are software created for particular operating systems and working on mobile devices such as: smartphones, palmtops and tablets.

The utilization of mobile applications by airlines makes it possible to reduce the costs of passenger services, creating opportunities for establishing contacts with them in real time in interactive form of e.g. chat. An appropriately designed system will automatically inform passengers about booking modifications and will remind them of a flight.

Systems for administration of mobile applications have lower demand for servers and are characterized by higher security in the area of data storage. Designing a system and programming databases also requires fewer programmers than the IT systems used thus far.

The use of mobile applications is also a source of numerous benefits for the travellers. Among functional aspects we can highlight rich, intuitive user's interface, as well as high efficiency and high level of security.

Mobile applications are characterized by minimized need for mobile data transfer. More and more often airports provide hot spots with wireless Internet access (Baczko, 2011). A passenger at the Munich Airport can use Internet access free of charge, without temporal limitations.

The user of a mobile application also gains access to his booking and can manage it in real time. Using an application the passenger can

check in for a flight without having to wait in lines. The generated boarding pass can be downloaded to the device, or displayed in the application.

Mobile applications enable integration with the functions of a mobile phone, e.g. GPS — showing the shortest way to the departure gate, or using phone camera for scanning QR codes.

Mobile applications in the air transport sector

In the sector of air transport the utilization of new media, which enable mutual and interactive exchange of information, is quite a common practice. They are a source of competitive advantage and have an impact on the sales of companies.

Surveys conducted by Amadeus showed that one third of frequent fliers and one fourth of people aged 18-34 regularly use smartphones to book tickets, compared to 16% in case of all passengers (Amadeus — The always-connected traveler: How mobile will transform the future of air travel, 2011).

Mobile technology has had an impact on all phases of the lifecycle of travel. Thanks to advanced wireless networks the popularity of phones with network functions, smartphones and tablets is growing. Passengers are not attached to their desktop computers anymore and now have immediate access to information in any place and time.

The table below presents airlines whose applications have been appreciated by clients. The choice was made on the basis of a ranking of the most often downloaded and highest-rated applications of airlines. The table also takes into consideration the basic functions that applications in this sectors should serve.

Table 3. Comparison of airlines' mobile applications

Name of the carrier	Ranking according to Skytrax	Average rating in google shop	Access to booking	Possibility of booking a ticket	Check-in	Access to the state of account in a loyalty programme
Qatar Airways	1	4,3	yes	no	yes	yes
Singapore Airlines	2	4,4	yes	yes	yes	no
Emirates Airlines	4	4,4	yes	yes	yes	yes
Lufthansa	7	3,7	yes	yes	yes	yes
Etihad Airways	8	4,1	yes	no	yes	no

Source: Own materials on the basis of <http://www.airlinequality.com/info/top-100-airlines-2017/> viewed: 21.05.2018.

On the basis of the presented data it is possible to make a conclusion that the highest-rated applications are those developed by the best airlines, according to the Skytrax ranking. Emirates is a leading airline in the area of mobile marketing. The website designed in an optimum way by the company automatically identifies the device and redirects to a version optimized for the mobile device. Passengers can use the application created by this airline to order meals and transport. In the aforementioned application it is also possible to find information about business lounges and the system automatically directs the passenger to the nearest waiting room.

Set of good practices for the creation of mobile applications by airlines

Practicians have prepared a set of good practices, recommending the implementation of these solution to airlines (Drummond, 2014). The first and the most important element is optimization. Airlines should create applications and mobile websites adapted to mobile devices. What is significant is the time needed to load the content and the availability of all contents, compatible with the environment of mobile applications.

The second element is design. Mobile application should be intuitive and transparent. The passenger should get the possibility of purchasing a ticket, or checking in for a flight fast and without any problems.

The third good practice is personalization. This term is understood as giving the users the possibility to create their own account — the data of the account are stored in the memory of the device, or on servers. The user, following the change of end device and logging in gains access to the recorded data. Such functionality enables access to an account from various mobile devices and users themselves can decide whether to buy a ticket with their smartphone, or tablet.

Beacon technology is yet another important step, which can use the omnipresence of mobile devices of to generate significant additional benefits and at the same time improve the quality of service for airline clients. Navigation signals can help passengers move around an airport.

The fifth element of the set of good practices is loyalty. The passengers who have a carrier's mobile application are probably the most engaged clients. Airlines integrate their loyalty programmes with mobile applications. Such activities may boost the engagement of the most loyal clients, at the same time raising their retention.

Airports' mobile applications

Due to the specific character of their activity airlines have more room for building and maintaining relations with passengers at every stage of their travels than airports. Nevertheless, airports don't remain passive and respond to the needs of the market.

Entities operating on the Polish market of airline services adapt to the global standards. The first Polish airport that created its own application was Chopin Airport in Warsaw (Grabińska and Grabowski, 2016, p.246).

Schiphol airport in Amsterdam, in cooperation with KLM airline positioned 2,000 beacons in the terminal to make it easier for

passengers to reach the appropriate gate and to inform them about their flight details (KLM Offering Airport Navigation Service, 2014). KLM's clients can also use mobile application for the choice of places, check-in, or purchasing additional services such as raising luggage limit. It is worth pointing out that the airport in Amsterdam offers travellers unlimited, free wireless Internet access.

Virgin Atlantic and British Airways are two leaders of mobile marketing at Heathrow Airport. Both carriers use navigation signals for informing passengers about partners' special offers, as well as about important updates. Heathrow Airport has also created its own application.

Analysis of marketing communication instruments in light of own research

First survey — the most efficient instruments of marketing communication

First author's survey was conducted in the period from November 2013 to January 2014 in form of an Internet questionnaire on the Google Docs platform. The link to the questionnaire was posted on thematic groups concerning aviation on the social media portal Facebook. 116 people took part in the survey. According to the demographic profile of the survey, 61 percent of the respondents were men (Szymczak, 2014, p.70-79).

According to the survey, the most popular channel of marketing communication are airlines' profiles on social media portals, as well as official Internet websites. Airlines focus on the sale of their products over the Internet. A similar trend can be observed in case of marketing activities. The respondents admitted that they rely on marketing measures when they choose an airline. The respondents prefer direct, personalized contact.

Second survey — mobile applications of airlines

The second survey was conducted to complement and supplement the previous one. The survey takes into consideration the aspect of mobile applications. The survey was carried out in the period from August to October 2017 in form of an Internet questionnaire on the Google Docs platform. Random members of thematic groups concerning aviation on the social media portal Facebook were invited to participate in the survey. The survey was filled out by 108 persons and according to the demographic profile of the surveyed sample, 68 percent of the respondents were men.

83 percent of respondents have an installed application of an airline and 70pc use it on a regular basis. 62 percent of respondents use more than one application. 89 respondents who have installed at least one mobile application of an airline were asked to name the main advantages of using the application. The respondents said that the possibility of doing a check-in is the biggest advantage.

Table 4. Benefits from the utilization of mobile applications

Advantages of using an application	All advantages (multiple possibility)		The biggest advantage (single possibility)	
Possibility of doing a check-in	81	18%	24	27%
Access to the status of travel in real time	75	16%	15	17%
Showing the shortest route to the departure gate	70	15%	13	15%
Displaying the schedule of travel	63	14%	10	11%
The possibility of purchasing additional services	61	13%	12	13%
The possibility of purchasing another travel	60	13%	8	9%
The possibility of choosing a meal	50	11%	7	8%

Source: Own materials.

The respondents using mobile applications were asked to name mobile applications that they use and to choose the application they think is the best. 75 respondents declared that Emirates has the best mobile application. The application of PLL LOT was the least popular, as it was named by only 7 percent of the respondents.

Summary

The conducted analysis of marketing activities with the use of mobile applications showed limited utilization of their potential. The implementation of mobile marketing by airlines may lead to the reduction of costs of passenger service, as PUSH notifications in an application automatically inform the passenger about changes (booking, opening and closing of boarding, change of departure gate).

We should also note that in mobile applications also boarding passes are available. They are stored in the memory of a mobile device and don't require access to the Internet. Passengers will never lose their boarding passes again — they will always have them on their mobile phones. Mobile technology makes it possible to be engaged all the time in the whole lifecycle of travel.

The highest-rated mobile applications are the applications of carriers who belong to the group of the best airlines in the world, according to the Skytrax Ranking.

The results of the first survey suggest that the most popular marketing communication channels are profiles of carriers on social media portals, as well as their official Internet websites. The respondents admitted that they take into consideration marketing measures when choosing an airline.

The second author's survey was conducted by means of the CAPI method, using an Internet questionnaire. 83 percent of respondents have at least one mobile application in their phone and 62 percent of respondents declared that they have more than one. The survey should be conducted also among another group of randomly chosen travellers. The respondents also named the most important benefits from the utilization of mobile applications. According to 27 respondents the most important thing is the possibility of checking in for the nearest flight, 17 percent of the respondents think that access to booking in real time is most important for them.

Asked about the best application. 75 percent of respondents concluded that this title belongs to Emirates Airlines. Also the community of google play shop, where the application can be downloaded, shares this opinion. The people who have installed the

application have the possibility to express their opinion — on this basis google play ranking is created.

The conducted analysis shows that marketing communication tools and in particular applications created for mobile devices are a showcase of airlines and can be an efficient element in the process of building a competitive advantage. Hypotheses formulated in the article have been partially confirmed by the research.

Taking into consideration technological development, it is advisable to repeat the research and to continuously monitor the usefulness of these marketing activities.

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