

## DIGITAL TECHNOLOGY'S IMPACT ON USAGE OF MOBILE APPLICATION AT CATERING FACILITIES

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**Abstract:** *For almost two years now, the world has been facing major economic challenges, precisely struggling how to adjust the business in a period of a pandemic. It can be said with great certainty that there are very few economic entities to which the pandemic has left no trace or caused visible consequences on business. However, we can perceive the crisis as a chance for further development or an opportunity to show that we can achieve better results compared to the competition. One of the ways to improve the usage of mobile application in catering facilities is the implementation of digital technologies. Accordingly, the main goal of this paper is to determine whether there is an impact of digital technologies on the usage of mobile application in catering facilities. The methods used for the research will be a survey as a method of quantitative research, and an interview as a method of qualitative research. The expected results of the research are to determine whether there is an impact of the of digital technologies on the usage of mobile application at catering facilities.*

**Key words:** *marketing, digitalization, mobile application, strategy, market, digital transformation*

**JEL classification:** M, O

### 1. INTRODUCTION

The digital technology in the world is increasing on a daily basis of company, in this case catering establishments must respond to the constant challenges in this area. It is necessary to mention that trends and needs change very quickly, and accordingly it is not possible to be passive in the market if you want to keep your market involvement.

The trends of the outflow of labor force to the more developed countries of Europe have not bypassed this sector of the economy, on the contrary, they are becoming more and more pronounced and visible. One of the solutions are digital technologies, that is, in this case, the possibility of partial replacement of staff in catering establishments. Namely, it is a mobile application that allows you to order products and services without physical contact with the staff, which speeds up the delivery process and enables more efficient daily operations.

This type of innovation certainly represents an opportunity for a kind of progress in business and enabling the spectrum of services that companies from this sector offer, but it is certainly necessary to determine how the market would react to this type of change, i.e. how willing consumers are to substitute the traditional ordering process in a catering establishment. Based on this, a study was conducted, with the aim of determining whether

there is an impact of digital technologies on the use of mobile applications in catering facilities.

## 2. DIGITAL TECHNOLOGIES

In previous decades, companies were not only faced with internal challenges such as productivity, reducing costs per product unit and increasing flexibility, but also with clear and very challenging technological changes, changing customer preferences, and different legal issues. This has led to a challenging situation in the corporate context: there is a large number of new technological opportunities that exist, but people are not sure how to use and implement them in the context of products and services (Lerch and Gotsch, 2015). This area, i.e. this type of destructive force is one of the most studied by researchers, because it can never be said with certainty how a business entity will react to the introduction of a certain digital technology, i. e. how it will react to digital transformation. Businesses can be successful over time if they can adapt to their environment. It is very important that all functional units are included in the transformation project, in order for the business entity to respond adequately to the mentioned changes. If there is no cohesion between the functional units, there is a very high possibility that the company will not adapt to existing trends and thus lose a significant part of the market involvement. The adoption of digital technologies becomes a unique policy, or goal, and the inability to accept this challenge could have unfathomable economic consequences (Gruber, 2017).

In essence, today, digital economic activities caused by the application of digital technologies are already an unavoidable part of everyday life, i.e. they are used for shopping on the Internet, calling a taxi, booking a hotel room, buying plane and train tickets, ordering food, participating in online conferences, as well as for scheduling a doctor's appointment (Huang, Qiu, Wang, 2021). For example, some of the academic online seminars attract millions of viewers. Hundreds of millions of consumers buy products from e-commerce platforms. Some social media platforms serve billions of users simultaneously. It is certainly important to emphasize that the volume and speed of economic activities have reached levels which have never been seen before in human history (Huang, Huang, 2018).

However, it is important to emphasize that this way of applying digital technologies to the population cannot be assumed for all countries of the world. This is supported by the research of Komin and Mestieri (2018), who determined that there are huge differences in the use of digital technologies around the world, which are often

related to the level of development of a certain country.

### 2.1. Mobile application

They are a product of the use of smartphones, that is, a trend that arose from the use of the Internet and the development of technology. The essence of using applications is related to facilitating everyday life and the concept of smart cities, which reduces people's time spent on daily tasks.

Over the last decade, the popularity of apps has continued to grow (more than 2.87 million apps are currently available), but although the growth of apps is gradually slowing down, they remain at the heart of digital marketing strategies, influencing economies around the world (Stocchi et al., 2022).

The authors define mobile applications as software designed to use mobile technology, support the collection and transmission of data for commercial, government and entertainment purposes for economic and social events (Chinedu, Huisman, Taylor, 2020).

A mobile application refers to a type of software developed to run on a mobile device (smartphone) and provide users with services similar to those available on a computer. However, the mobile application also has some different features: it is optimized for mobile devices with a touch screen, it is usually offered for free (although premium versions and its use may be charged), it is available on an electronic market where all users can rate, comment and recommend using a specific application (Liu, Au, Choi, 2014).

Applications are developed to support everyday activities (examples can be restaurant searches, event tracking), to improve communication, opportunities and socializing while a person is on the move (examples are messaging and social networks), to improve the shopping experience brand (examples are apps developed by brands to support online shopping and interact with brands), to improve professional productivity (organizers, e-mail applications) or learning experience (e-book readers), and sometimes just to fill free time (mobile games). With such a wide range of types and uses, mobile applications have the potential to provide users with a personalized experience, without time or space boundaries. (Palumbo, Dominici, Basile, 2014).

As mentioned above, the Apple Store and Google Play act as the two main "places" where users can download applications most often developed by third parties. Basically, they are platforms, two-sided marketplaces where multiple parties (app

developers and app users being the most prominent in this case) come together to facilitate exchanges

### 3. RESEARCH METHODS

The research will include two parts, i.e. quantitative and qualitative part. It is important to note that the majority of it will be in quantitative form, and the technique that will be used is the questionnaire technique. Unlike the quantitative research, the qualitative research will be related to the commercialization of the innovation, that is, the psychological moments of the end users and restaurant owners that cannot be measured through

questionnaires, and on this occasion the interview technique will be used. The processing methods that has been used in the work are analysis and synthesis, as well as induction and deduction.

The research was conducted on the territory of Bosnia and Herzegovina.

### 4. RESEARCH RESULTS

This reasearch has been carried out and it includes 214 respondents in total. After the conducted research, the following data were obtained:

**Table 1.** Results of research

<i>Gender</i>	<i>Frequency</i>	<i>Percentage</i>
Male	101	47,2%
Female	113	52,8%
<i>Age</i>		
Under 18	1	0,5%
18 – 29	123	57,5%
30 – 39	35	16,4%
40 – 49	33	15,4%
50 – 59	21	9,8%
Over 60	1	0,5%
<i>Monthly income</i>		
Under 500 BAM	55	25,7%
500 – 1000 BAM	68	31,8%
1000 – 1500 BAM	54	25,2%
1500 – 2000 BAM	21	9,8%
Over 2000 BAM	16	7,5%
<i>Do you visit catering facilities?</i>		
Yes	108	50,5%
Sometimes	97	45,3%
No	9	4,2%
<i>How often you visit catering facilities?</i>		
Everyday	36	16,8%
2 – 4 times a week	91	42,5%
Once per week	50	23,4%
Once per month	29	13,6%
Once a year	8	3,7%
<i>Would you rather visit the restaurants more often if they had a greater social distance, that is, less contact with the staff and other guests?</i>		
Yes	107	50%
Not sure	82	38,3%
No	25	11,7%
<i>How important is communication with the waiter, or more frequent contact with the restaurant staff?</i>		
It means me a lot	32	15%
It means, but it is not a decisive factor	75	32%
It has no particular influence on my choice of restaurant	78	36,4%

It means nothing to me	29	13,6%
<b><i>Do you think that an application to order products without a waiter would make your stay in a restaurant more pleasant?</i></b>		
Yes, I think it would mean a lot to me	141	65,9%
Not sure	52	24,3%
No, it wouldn't mean to me	21	9,8%

*Source: Author*

Before starting the research, the goal was to perform a targeted division of respondents, that is, how many of the structures of a certain social group should be analyzed. The goal of a balanced gender structure of respondents was achieved, where the ratio between the sexes is approximately 50%. Besides that, the plan was that 60% of respondents included the group of 18-29 years, 20% from 30-39 years, and the other 20%. This plan was realized, so that the focus would be on young people, that is, the basic target group that is related to this idea.

As for the data obtained for the third question, which refer to monthly income, the expected results were obtained. According to the target group that was surveyed, it is expected that most of them have an income of up to 1500 KM, which indicates that they are in the early stages of their careers, and that there will be some growth in that direction in the future.

It was established that respondents still visit catering establishments, that is, that even 95.8% of respondents still go to catering establishments. This indicates that there has not been a downward trend (caused by the "Covid-19" pandemic) of going to catering establishments, and that young people still mostly go to catering establishments normally, which certainly has a positive effect on the realization of this idea. Accordingly, it was determined that as many as 82.7% of the respondents visit catering establishments at least once a week, which speaks of the culture of the society about visiting catering establishments and the catering establishment as a place for socializing/meetings.

After that, it was analyzed, through the question of intensity (not included in the previous table due to technical reasons), which indicator bothers the users of catering facilities the most when visiting them. It was established that consumers are quite indifferent to the appearance of a catering facilities, that is, this characteristic of catering facilities is not an overly important item for them in choosing an establishment. It is quite surprising that they were a little less indifferent towards high prices, i.e. they indicated that it means to them, but that prices will not be a decisive factor when choosing, which represents new information about the thinking of young people, who are more likely to be more inclined towards maximizing

satisfaction in relation to economic rationality. Untidy tables, long waits for food and drinks, unfriendly staff greatly bother the end users and is something that certainly has a big influence on the choice of a restaurant. These data indicate to us that customers want more, that is, not only food or drinks, but the complete experience of staying in a catering facility in order to effectively maximize their satisfaction. All this is in favor of the implementation of an ordering application that would create a completely new experience that would forever change the perception of being in a restaurant. Also, it was important to examine whether the end users would visit catering facility in case of application of even greater social distancing measures (less contact with staff). It was determined that only 11.7% of the respondents would not visit these places even after that move, which tells us about the importance of implementing the application as an instrument for reducing contact with the catering staff. However, it was necessary to determine how consumers are affected by the reduction of social interaction, i.e. the already well-established concept of communication with the staff of the catering facility. The answers that were received are associated with the display of a normal schedule, i.e. it shows that extreme options are not represented, that it is extremely significant or that it is not significant at all. This indicates that there is a certain influence that is sometimes smaller or larger, depending on the needs and the situation in which the customers are at that moment. This certainly represents a specified type of disruptive factor or barrier that needs to be overcome in order for customers to accept even more a certain new type of service. It is necessary for the application to be as interactive as possible in order for consumers to replace the traditional way of ordering with the application in the most painless way. This question was followed by direct questions regarding the use of applications as a new way of guidance, where 65.9% of people declared that they would use software. However, the significant data is that 24.3% of people declared that they are not sure, which indicates that they could also be potentially interested in the event that they have the opportunity to try, i.e. to be early innovators. Based on the previous answers, it can be concluded that consumers have

a positive opinion about the ordering application and are ready to try this type of ordering as a new digital solution. It is certainly necessary to make efforts to improve the application as much as possible and to cancel the lack of interaction with the waiters.

## CONCLUSION

The outcome of the "Covid-19" pandemic, i.e. its end, cannot be predicted at the moment. People's way of life will never be the same. People's needs have changed significantly compared to the period before the start of the pandemic. Although this presents potential problems, more skilled companies or individuals are ready to find the positive features of the pandemic and respond in the most efficient way to future challenges on the market. In the theoretical part of the work, the concepts that are most important for the subject matter of the research are discussed. However, it is necessary to empirically confirm certain theses and positions that are generally accepted. Consequently, it was necessary to conduct research in order to determine the actual situation on the ground. Research included 214 respondents which corresponded nine questions. The survey found that as many as 82.7% of respondents visit restaurants at least once a week. The respondents stated that they prefer contact with the staff of catering establishments, but at the same time 65.9% of them declared that they would use this type of software solution if they noticed it in a catering facilities. After analyzing all the indicators, starting from the theoretical to the research part, we can conclude that there is a significant influence of digital technologies on the use of mobile applications in hospitality facilities.

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## SUMMARY

*The Covid-19 pandemic has caused an enormous crisis and global changes. However, change should sometimes be seen as an opportunity for innovation, which can change everyday life. More precisely, to help stakeholders to adapt to the current situation, and accordingly to be more resilient to the crisis. Digital technologies are one of the solutions for adapting business to a challenging situation. At the beginning, the paper presents the theoretical concepts of the mobile application, as well as ways to use them. In addition, the paper indicates that the research is based on application for ordering without staff of catering facilities. After that, a qualitative and quantitative research was conducted in order to determine whether there is an impact of digital technologies on usage of mobile application at catering facilities. It is important to note, 214 respondents participated in this research. The research found that as many as 82.7% of respondents visit catering facilities at least once a week. Respondents stated that they like contact with the staff of catering facilities, but at the same time 65.9% of them stated that they will use this type of software solution if they notice it in a catering facility. After analyzing all the indicators, starting from the theoretical to the research part, it can be concluded that there is a significant impact of digital technologies on usage of mobile application at catering facilities.*