

# Digital Applications for Improving Tourist Experience in the Wellness Centers in Bulgaria

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## Abstract

Digital wellness technologies and their use have become exceedingly popular. More and more people use them daily. Respectively, the need to understand this newly formed well-tech field has increased. This paper aims to deepen the understanding of how people react to the new wellness technologies and if they are valuable to them or not. Empirically, the research is based on a questionnaire, collecting data from 272 participants over a four-month period, which are further analysed. Besides this, 20 interviews are conducted with experts from the wellness industry in Bulgaria. The results show that there is a positive correlation between wellness technology and its effect on the users. It can be concluded as well that digital wellness applications can only enhance tourists' experience. Further, all wellness digital applications and their main feature - self-monitoring - have a learning effect on the users. Three possibilities stand out in front of wellness tourists: to relax in a high-tech area, to enjoy digital detox

opportunities or to combine both. Even though 2020 was an unpredictable year, we are assured that there will be a huge future interest in tech wellness and a wider spread adoption of it.

**Keywords:** Digital applications, digitalization, experience, wellness centers, Bulgaria

**JEL:** Z32, O30, M30

## Introduction

Tourism is a significant sector, which until 2020 generated huge cash flows. The interconnection with almost all other economic sectors turns it into an engine in the economy of many countries worldwide. In the years of its thriving development, tourism has established itself as extremely adaptable, not only recovering quickly from radical cyclical changes but also immediately perceiving and transforming in its favour all the emerging trends. The current situation tests all these features of tourism once again. Despite the unprecedented decline in travel during 2020 and a bit beyond, tourism has shown a trend of rapid recovery and adaptation to the newly set conditions. Particularly interesting currently,

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and in the last 30 years, health services that have been adopted by the tourism industry turn out to have been striving to provide to its customers a non-standard and atypical way of experience. Health offers leave a feeling for pleasure, satisfaction, and relaxation in tourism, which leads to the emergence of new types and forms, such as spa and wellness tourism. Despite the terminological unclarities, these new services are preferred and the demand for them has been increasing, especially as health care has been prioritized since the Covid-19 pandemic spread. Wellness is an attractive investment direction of tourism that deserves in-depth research.

The tourism industry has changed enormously in the last years. We have been witnessing a massive introduction and evolution of new cutting-edge digital technologies, smart amenities, and impressive designs in the tourism enterprises, well-developed products, and improved digital services. Thus, we can easily outline that digital technologies have brought significant transformation to the tourism industry, revolutionizing tourism enterprises, products and experiences, business ecosystems, and destinations. Furthermore, digitalization can be viewed as the engine of transformation and improvement for tourism. This is dictated by its widespread invasion in people's lives in the recent decades, so tourism always finds a way to include modern trends in its offering in order to increase the value for tourists.

Digitalization can be even further defined according to various intensity levels: from pure presentation and information (website), to a sales channel function (eCommerce), to business process integration (ebusiness) up to new business models with virtual products or services (Bauer et al, 2008). Digital technologies have the potential to boost more

inclusive and sustainable growth by spurring innovation, generating efficiencies, and improving services. Innovations on their own can be seen as knowledge that makes a single business more profitable. Digitalization is the most evolving phenomenon among us. It offers many new opportunities that can be exploited by providers in the tourism industry. At the same time, competition is being intensified and companies must keep pace with it in order to remain on the same level (Velikova, 2019). We can consider digitalization as an accelerator, contributing greatly to the growth of the industry. Digitalization is not just a simple change, holding back transformation and conditions though which tourism must be premium in order to be effective and competitive. It makes it possible to exclude differences and that subsequently leads to growth and helps to create new consumer niches. One of the brightest manifestations of digitalization is in the process of creating tourist products/services and the introduction of a completely new innovative direction, called **digital tourism**. If we have to describe the digitalization in the 21st century, the most significant trends to follow are: Robots; Artificial Intelligence and chatbots; Blockchain; Smart technologies and the rise of mobile applications; Internet of Things connection; Digital connectivity; Big data etc.

Contemporary wellness is an industry in the full sense of the term. Wellness is an entire philosophy that flourishes in all aspects of our lives: physical, spiritual, social, and mental. Its main task is oriented in the prevention and prophylaxis of diseases and signs of aging. The category of buyers willing to pay for their health is formed a long time ago, therefore, the future growth of the wellness industry, in general, and the rise in the number of wellness services in Bulgaria, particularly, is

just a matter of time. The consumer niche is quickly filled with a variety of wellness resorts and complexes, starting with traditional gyms and classic massage sessions, and ending with exotic baths, spas, fitness, and yoga.

The rapid development of digital technologies, transferred to wellness tourism as well, aims to improve consumers' welfare. Digital wellness uses technologies that have similar attractive qualities as other applications, convincing and encouraging its users to behave in a healthy manner. Digital wellness technology is an integral part of modern people's lives. Although it is seemingly useful to us, it also raises certain concerns about its impact on the consumers and the mass dependence on portable digital devices. In this paper, we will try to capture the advantages and disadvantages of the digital applications, used in the wellness sector.

### Theoretical Framework

To gain a more profound understanding of the topic several terms must be defined. As the main scope of this paper is **digitalization** we can define it as a process by which information is converted from analog to digital media by using suitable electronic devices (Bauer et al, 2008). This seems to be the most usable word nowadays, especially when it comes to new trends. Next, **wellness** is a vastly used word that can be interpreted in different ways. In this paper wellness is referred to a purposeful and responsible philosophy of life, a combination of different practices and activities, having a holistic approach, aiming to improve the individual and his personal capabilities, as well as achieving health, balance, and harmony. Wellness is not just a form of alternative medicine but a starting point where the main goal is to obey a lifestyle on a strategy that eliminates

diseases and disorders. A huge number of scientific labors are focused on the theory of wellness, the dimensions that are part of it, and the distinctions between spa and wellness definitions. In our point of view, spa is part of wellness tourism, where wellness tourism itself provides an extensive range of products and services such as: *spa, fitness and physical activities, nutrition, beauty and recreational treatments, alternative medicine, massages, spirituality* (Velikova & Anev, 2019). We can further define wellness tourism as the total number of relations that have arisen as a result of trips, initiated by tourists, whose main motive is to improve and enhance their health state. Their length of stay is at least 24 hours and in a place that is specially adapted to the need of improving physical and mental strengths, achieving spiritual uplift, and/or social wellbeing (Velikova, 2011). In a broader sense, a **wellness center** is a place that offers health services for both mind and body. There are various types of wellness centers as well. Both wellness and the types of wellness centers are definitions that can be interpreted in various ways, mainly depending on the country's regulations.

The term "**digital wellness**" is newly formed and caused by the digital era we live in. It can be described as: "a way of life, while using technology, which promotes optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully within the human, natural, and digital communities. Ideally, it is the optimum state of health and well-being that each individual using technology is capable of achieving" (IGI Global, n.d.a.). Digital wellness includes all aspects of people's wellbeing based on technology. Modern people tend to search online for information about their health levels, behaviour, usage,

and addiction to devices. We can summarize that digital wellness determines a person's health, mental and physical level, in relation to digital technologies. Digital wellness is an increasingly useful term, covering various areas of our lives such as professional, social, recreational, entertainment, and others, assessing our ability to self-control, stress level, psychological and physical health. We can expose the following elements of the digital world: physical, psychological, and behavioural. **Physical** can be explained as recording the screen time and technostress. The technostress term is linked to the phenomenon of the users experiencing stress due to information and communication overload. The excessive use of new technologies is detrimental to human health and to the younger generation, particularly, which turns this topic into a quite discussable one. **Behavioural** elements include the problematic use of the Internet, leading to addiction and media-multitasking. It is an increasingly common behaviour for younger users to use several devices at the same time such as tablets, smartphones, and PCs. **Psychological** elements address online privacy. Online privacy is a current issue that requires discussion. While confidentiality and trust are regularly explored by social media, e-health is neglected. The population should be concerned about who has access to our medical records electronically (Mahon & Aiken, 2015).

The growing importance and use of mobile applications in the hospitality industry, online payments, online reservations, online search engines, OTA, etc. have revolutionized the tourism sector. The new information and communication technologies are changing both the demand of products and services from the consumer's side, respectively for

suppliers' side as well. Tourists are becoming increasingly strict in terms of quality and good service. The importance of smartphones, mobile applications, and Internet connectivity has reached such heights that it has become a starting point in the searches for information and undertaking travel. Undoubtedly, their role in tourist offerings will continue to increase in the coming years. To sum up, the digital transformation in the tourism sector is strongly influenced by the following tourism technologies: Integrated websites; Free usage of Internet in the destinations (smart destinations); Online reservations in real-time; Virtual intermediaries; Smart devices and amenities; Mobile applications.

The Covid-19 crisis in 2020 definitely has accelerated the process of digitalization in the industry. In recent years, there have been radically changed expectations and preferences of travelers. Guest's expectations of technology are becoming higher, as they prefer remote and fully mobile experience in hotels and centers. This trend tends to intensify in the post-pandemic period. Wellness users make no exception to that newly set rule. Taking everything into account, we can outline three main pillars of digitalization in the wellness sector: **facilities/ amenities, users, and staff** (Dimova, 2021). Smart amenities, facilities, and designs can be added to create this new modern type of convenience that is key for the new customers' needs. Digitalization of users can be explained as a diverse choice of unique technologies and applications. Staff digitalization is related to automatic solutions that enhance guests' experience, reduce costs and save operation time. Well-being has become measurable, thanks to the new digital technologies, opening the door to the only new scenario chosen — welfare as a service — for both industries: wellness and

healthcare, which are used in a new market for trillions of dollars, named as **Well-Tech** (Medium, 2020).

Well-Tech is an ecosystem of related technologies in support of a goal and health pursuit, happiness, and well-being. This ecosystem does not include digital medicine in its purest form or therapeutic solutions regarding medical diseases but plays a huge role in developing a proper and healthy lifestyle in the pursuit of overall health and well-being. Over the last years, we have been noticing a huge megatrend in the individualization, massive usage of smartphones for online reservations, direct communication through apps for instant messages, artificial intelligence, virtual reality for pain relief, or intense experience. According to a Google/PhocusWright study from 2018, tourists prefer to book and plan their entire trip via a mobile device. This trend is valid for markets such as India (87%), Brazil (67%), Japan (59%), the USA (48%), and others. Mobile devices usage definitely leads to a higher probability of bookings in the last minute (Google & PhocusWright, 2018). The various messenger applications are one of the fastest and most convenient ways to connect to people. Recently, this trend is observed in the field of tourism-contactless communication between tourists and hoteliers, etc. According to Business Insider (2019), a person installs and uses an average of 27 apps on his phone per month, where the top messaging apps are highlighted to be Messenger, WhatsApp, WeChat, and Viber. This statement is also confirmed by the statistical information portal Statista. According to their data, the aforementioned applications have approximately 4 billion users and this automatically makes them an ideal way for tour operators to communicate

with their customers in real-time. Wellness users, on their part, more frequently choose to book a massage, yoga class, or other activity via mobile applications (Statista, 2019). Obviously, digital applications are viral for modern tourists. **Applications** actually refer to any application software that can be used by a computer, mobile device, or tablet to perform useful tasks. A digital application is different from system software that manages, integrates a computer's capabilities that serve the application (IGI Global, n.d.a.). Digital applications are powerful tools for communication as they allow brands to reach their overall communication goals. It is important to mention that this research area is still at a beginning stage so there is lack of comprehensive data that can be used for a profound literature review.

In this paper when we use digital applications expression we refer to mobile applications, gadgets, and smart devices as we consider that they can have a great impact on the tourist wellness experience. In this paper, we will summarize the various wellness and health applications, portable devices, and other modern innovative solutions based on the new technologies as **wellness technologies**. There is a wide variety of products, ranging from wellness applications to universal smart watches or other gadgets, constantly entering the market with completely new innovative solutions. The most typical feature of all of them is **self-tracking**. Personal monitoring and tracking can definitely lead to increased awareness of our daily activities. According to Wang et al. wellness applications are more effective for long-term use than short-term (Wang et al, 2016). Recently, we have been noticing a growing recognition for mobile apps focused on digital coaching, mental health awareness, screen time controllers, sleep and

fitness trackers. Even so, the new wellness technologies have been on the market for quite a while now, have their focus mostly on physical wellness. We believe that the fast-paced lifestyle of modern people requires a wider range of applications that observe mental and psychological wellness, too. Especially, after Covid-19 and the lockdown life, our wellness mental needs must be a priority for the IT world inventors. Along with other fields in healthcare, technology has helped revolutionize mental health support and data collection. This mobile mental health support helps users to find solutions, share their experiences, consult with professionals, and perform psychologically calming activities (National Institute of Mental Health, 2019).

We must pay special attention to wearable devices as well. There is a clear reason why they have turned into a massive trend. Most common are fitness trackers, smart health watches, bracelets, etc. All of the aforementioned wellness technologies play a significant role in the life modern people and their implementations in the wellness centers will add an additional value for the wellness journeys. We can conclude that even if the wellness industry initially developed in the hotels and resorts, now it goes beyond these limits and enters our homes through new applications and inventions.

### **Advantages and disadvantages of digital applications**

Over the past 10 years, innovations in health and wellness technologies, in particular, have surged, making the sector evolving into a giant size. But if the first aim of those technologies is to enhance user's life, why are there controversial feedbacks then? The new technology has developed so much that it is essential to weigh out its advantages

and disadvantages. Firstly, exposing the **advantages** we cannot miss to say that the new technical solutions allow us to ease the signs of multiple sclerosis symptoms that can affect any part of the body by new mobility scooters invented or smart scale, bath mat, etc. or the use of virtual reality (VR) technology in healthcare that is expanding rapidly for pain relief. We have access to cutting-edge gadgets that help us to sleep better or track our overall health with one click. **So, the biggest plus of those smart technologies is the opportunity to enhance our lives.** Digital options such as applications, devices, etc. have both strengths and weaknesses. The core of this type of wellness technology is self-monitoring, which aims to change lifestyle and make progress. Self-monitoring can be successful and can promote physical activity, healthy weight, fair management of daily tasks, proper diet, may even be successful in quitting harmful habits such as smoking, but despite the widespread impact and use, some users report low efficiency of those devices (Orji et al, 2018). Taking into account the majority of the reviewed surveys, the advantages are the pointed below ones: *Successfully detect problematic behavior; Provide information in real-time; Encourage consumers to think; Encourage responsible behavior; Create and raise health awareness; Self-monitoring encourages internal competition.*

Disadvantages can be systematized in the following way: *They can provoke health disorders, can even lead to depression and personal dissatisfaction; Sometimes they are defined as annoying and boring, so an additional strategy is needed* (Orji et al, 2018).

Summarizing the above, we can conclude the following about the needs and the requirements of the wellness users related to digital wellness devices:



## Articles

- Wellness users need extra urge and motivation to switch their lifestyle to a healthier one;
- They need comprehensive information to raise awareness about their current health. New wellness technologies successfully meet this requirement;
- Wellness users require individually developed plans, real-time guidance, and the ability to track their personal progress.

This conclusion gives us a ground to address the subsequent methodology of the scientific research.

## Methodology

To evaluate the effect of digitalization in the wellness industry and to form a valuable opinion on whether digital applications are improving the wellness experience or not we chose various research methods. To collect essential data we used secondary, primary, qualitative, and quantitative methods such as literature overview, survey, interviews, and brainstorming. The literature overview lays the solid foundation for one in-depth research. Among the possible methods for gathering primary information (expert assessments, individual in-depth interviews, surveys) we consider the survey method as appropriate. In this research descriptive structure and profile building are applied.

The questionnaire method was used, particularly the direct individual questionnaire, in which the respondents can choose between open and closed options, so either they can choose one of the possible answers or fill it by themselves if it is allowed (depending on the question). The questionnaire contains 16 questions that can be easily split into different sections such as general information, personal wellness preferences, digital wellness services, and technologies.

The survey was conducted in the period May-August 2021, where 272 respondents were involved. The aim of it was to understand in depth the customer's wellness preferences and according to this to build a tourist profile. In addition, the survey was a must for the Bulgarian market in order to assess if we are in line with the global digital trends.

Another method that was used is expert assessments in the form of an interview. Not only we have to gain a profound understanding of the tourist's needs, but we need to align it to the experts in the field. We conducted 20 interviews with experts, practitioners, and leaders in the Bulgarian wellness sector. An interview method is generally a qualitative research technique that involves asking open-ended questions to converse with respondents and collect and elicit data about the topic. Last but not the least, the brainstorming method may be the best-known tool for group idea generation. Many empirical studies have been conducted regarding the effectiveness of brainstorming, and they have provided useful insights into the barriers that groups face when using this tool. Brainstorming is a qualitative research method performed to generate as many creative ideas as possible, collectively from the participants. Furthermore, brainstorming can be both structured or unstructured and can be part of a workshop, a focused or unfocused group.

## Results

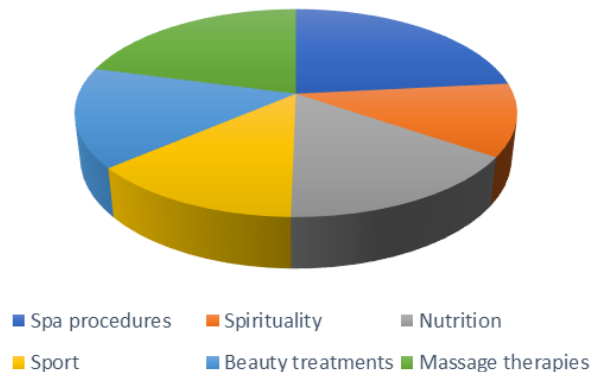
Based on the questionnaire, we can build a profile of the Bulgarian wellness user and their current preferences. According to the results, we have involved 51.1% male respondents and 48.9% females, so there is very little dominance of the male gender. Most of the respondents fall into the 24-39 years old group (57.7%). They are all well-educated

and in active age. This group are young and working people, many of whom are very interested in travel and social activities, aware of new innovations and have high and digitally targeted criteria when they are on the road. For the purposes of the verification statistics, the types of employment of the surveyed users are divided into four large groups – *student (11.8%), employee (84%), retiree (4.8%), and other (0.12%)* and the distribution of the respondents is not approximately the same. So far, we can summarize that the survey participants are mostly young and working people, falling in the range between 24 and 39 years. It is important to note that only 14.3% of all 272 respondents have secondary education, all other participants have one of the three degrees of higher education - with a significant share of master's degree. This fully

corresponds to the general profile of wellness tourists worldwide - young, health-oriented, erudite, financially stable and educated individuals willing to pay a higher amount of money to receive a quality wellness service to help them achieve a common level of well-being and health.

As we mentioned previously there are no clear definitions of all the elements included in the wellness sector in Bulgaria which can cause chaos. Bulgarian tourists hardly make any difference between spa and wellness, and this was confirmed by the questionnaire once again. 85% of the respondents associate spa procedures to be the core of wellness, which barely even captures the capacity of the industry. 76.1% associate it with massage therapies and only 41% with spirituality (Figure 1).

### Associations and demand of wellness services



Source: Author

**Figure 1.** Associations and demand of wellness services

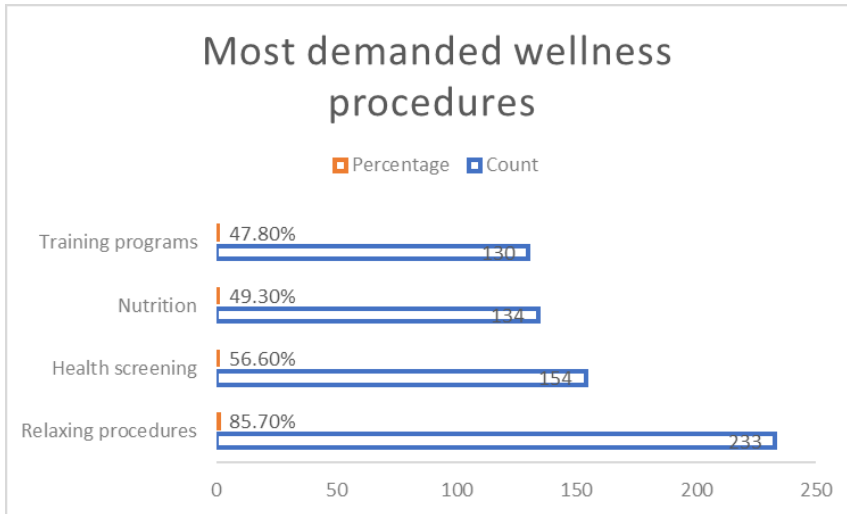
In our opinion, it is necessary to clarify the limits of spa versus wellness despite the overlapping in the product offers and more important experts in the field must make an extra effort to boost the full set of products, not only to focus on spa and massages

as wellness has much more to offer. The products and services in the wellness hotels and centers must be diversified. Another sign of the digital era we live in is that over 60% of the respondents choose their wellness destination online. When choosing a wellness



hotel/center, some 65.8% pay close attention to the wellness center whether 31.6% would prefer to be surrounded by nature. Not surprisingly, 85.7% expect to receive relaxing

procedures from the wellness center and only 47.8% would like to get training programs (Figure 2).



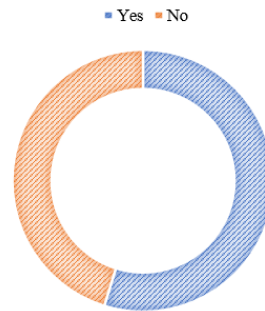
Source: Author

Figure 2. Most demanded wellness procedures by Bulgarian tourists

For the Bulgarian tourist it seems that digitalization is not in the **first place as 47.1% of them would prefer digital escape or offline experience. Even though**, a fair percent need both-digital detox and digital connectivity at the same time. The fact that we are almost 24/7 surrounded by screens and devices makes digital detox options mandatory in order to recharge ourselves while disconnected. Of course, staying disconnected for a long time is quite challenging. As modern wellness technology aims to improve our health it is totally reasonable that 38.2% of the respondents would like to direct the digitalization to health screening tools. With the rapid advancement of technology, it is impossible for a user to have only one device. More of us use two up to three devices. 76.5% of our respondents use smartphones, 39.3% use smart watches and 19.3% of all manage to stay away from all devices, which mainly

fall into the elderly generation group. Out of all respondents 54.8% use a daily mobile wellness application (Figure 3).

DO YOU USE MOBILE WELLNESS APPS?



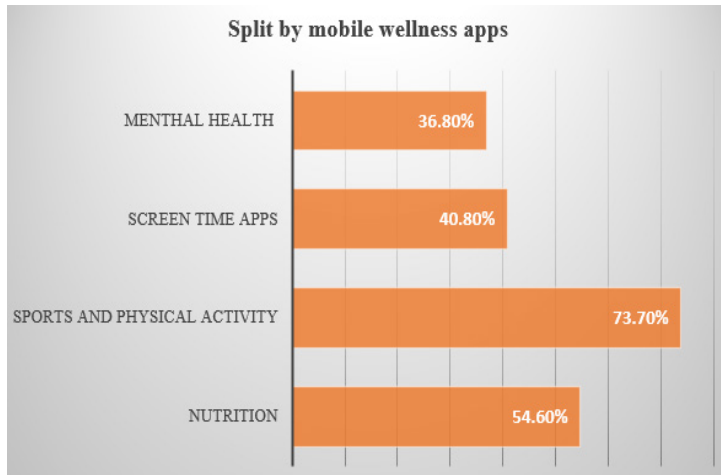
Source: Author

Figure 3. Usage of mobile wellness apps according to Bulgarian users

73.7% of all install mobile wellness apps in the sport and physical activity area, followed by 54.6% for the nutrition field which gives us a green light to conclude that tourists

take special care of their overall health and appearance (Figure 4). Personalized nutrition has been around for some time and was listed as a trend in 2019 but the COVID-19 pandemic has boosted interest in this area

due to nutrition's relation to immunity and mental health. Technologies that measure key biomarkers, collect big data, and develop personalized nutrition programs all fall into this category (Book4Time, 2021).



Source: Author

Figure 4. Split by common mobile wellness apps usage

Based on the research, we can summarize that there is still room for improvement in the wellness digital world. Even though digitalization is on a pedestal, we can notice a new niche forming - **digital detox**. Bulgaria has great prerequisites to re-launch digital detox services. Controversially to all said until now according to the expert interviews, we have noticed a tendency that stays away from digital inventions. All the experts we spoke with claimed that their customers had requested mostly massage techniques and spa procedures that had still not been conquered by the digital world. This gives an even greater opportunity for Bulgaria to promote itself as a digital detox destination. All 20 experts that were interviewed advised that the most demanded wellness services and products had remained to be massages, spa, beauty treatments and detox. A huge portion of them evaluate the digitalization in

their centers as satisfying, while the ones implementing no digital services at all advised they had registered no interest in this by their customers. Furthermore, we received controversial replies from them on the level of digitalization in the wellness sector of Bulgaria that vary from poor to very satisfying. 70% of the experts advise that according to them Bulgarian tourists do not expect any digital services. Approximately 65% consider that Bulgaria must invest in digital detox rather than digitalization, where 100% of all interviewed claim Bulgaria has huge potential to develop itself as a detox destination. Due to the lack of actual and comprehensive information on this topic we consider this survey and the results of it as highly important and original for Bulgaria. It is essential to know in depth consumers' opinions, and also the experts' ones in order be in line with the current trends. Undeniably, the steady growth

of the Bulgarian wellness tourism industry will continue despite the market fluctuations and the newly set emerging trends which however will not endanger the positive long-term investment decisions in this subsector (Dimitrov, 2011).

### Conclusion

The Internet has transformed how we live our lives in myriad ways. It was only a matter of time before healthcare and wellness became digitized, too. In the wake of years of social distancing, the importance of digital health and wellness tools has never been more apparent. To sum up, all expressed in this paper, we believe a well-tech world is a great gift that can improve our lives but there is still room for improvement to eliminate certain disadvantages of these new devices and apps. The younger generation is highly impressed and influenced by this new trend. We strongly believe the future of wellness is digital but not completely. There is a positive relation between digital wellness tools and user's motivation. There is a positive relation between new wellness technologies and user's health awareness. Applying those technologies in the wellness centers can only be an advantage for guests as it can improve their stay and overall experience. Even so, we think digital detox options will stay and flourish in the market mainly because of the tech world we live in and the huge stress coming along with it. Combining both options can make a difference as it can serve and unite various tourists preferences. Finally, as the level of digitalization in Bulgaria is still at a very raw and initial stage we believe Bulgaria has a great chance to position itself as a digital detox destination and use smartly and in it's favour the current low digital phase on a national level.

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