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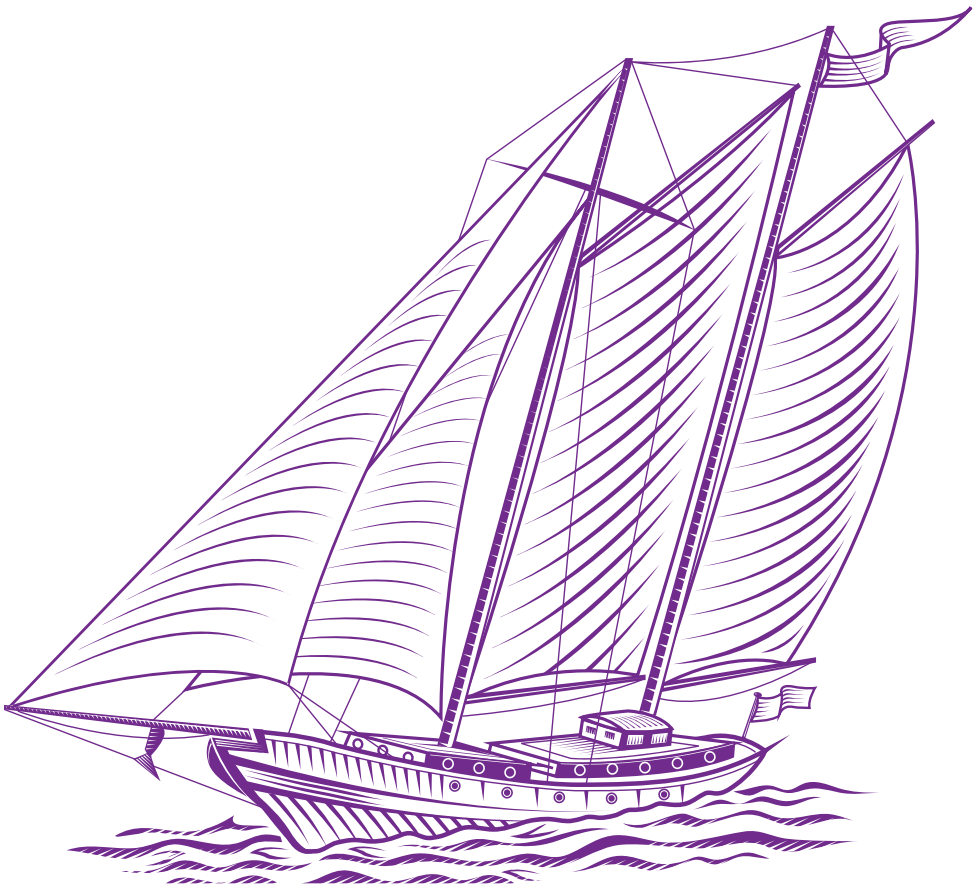

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Guest editor

Monica-Maria Coros
Department of Hospitality Services, Faculty of Business,
Babes-Bolyai University, Cluj-Napoca, Romania

The present issue includes papers presented at
the **International Conference Modern Trends in Business, Hospitality and Tourism 2022**
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The current issue contains a collection of papers on the following topics:

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Human Resources in Economy;

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STUDIA UBB EDITORIAL OFFICE: B.P. Hasdeu no. 51, 400371 Cluj-Napoca, Romania, Phone + 40 264 405300*6452; office@studia.ubbcluj.ro

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INTERNET OF BEHAVIOR (IoB) - AN ALTERNATIVE FOR DIFFERENTIATION IN THE DIGITAL ENVIRONMENT

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MIHAELA-FILOFTEIA TUTUNEA[1]

ABSTRACT. In recent years, a global health crisis has disrupted the lives of all people in a way that is difficult to manage; both at the individual and economic level, everything has changed; we all saw how difficult periods of restrictions alternated with those of relaxation and how the development of individual and professional lives changed sometimes even completely; also, we saw how the huge necessity appeared to move most of our activities from a real world, to a digital world, with many unknowns for a large part of people; in these conditions, the need for individuals to adapt to a life moved to the online environment, has intensified the need to develop a more robust, smarter and more specialized ITC infrastructure to support a world that is constantly migrating towards digitization; thus, intelligent technologies and new concepts and acronyms have imposed themselves in our lives, forcing us all to adapt and learn to use them and continue; thus, the use of IoT (Internet of Things), ML (Machine Learning), AI (Artificial Intelligence) solutions have become common; a mix of these technologies, together with the awareness and management of behavioral changes in times of crisis, increasingly imposed another technological concept, IoB (Internet Of Behavior); starting from these realities, a study was carried out regarding human behavioral changes in the digital environment in crisis conditions and which sought to obtain a complex image, made up of segments of transgenerational and international populations and comparing human behaviors in two types of periods, one of restrictions and another of relaxation in the pandemic; the analysis of the obtained data allowed the design of very complex profiles of

[1] Associate Professor, Faculty of Business, Department of Hospitality Services, Babes-Bolyai University, Cluj-Napoca, Romania. Email: mihaela.tutunea@ubbcluj.ro.

users of the digital environment, with similar behaviors, but also remarkable differences; we consider that the obtained results can provide important informational support for companies from all industries, so that they can understand and use IoB applications, in order to be able to design sets of strategies for sustainable development, in times of crisis, as well as competitive differentiation solutions.

Keywords: IoB, IoT, online environment, differentiation

JEL classification: L86, M15

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Introduction and review of literature

The Internet, in the last decade, has offered the population of this planet a digital alternative for ordinary life in the real world, bringing with it and also allowing the creation of new tools and solutions for managing the new, digital environment.

We could all see how everything that until recently meant our real/offline life environment, begins to be transformed and translated to a very large extent, towards the digital environment, thus assisting every day the increase in the ubiquity of the Internet; it is not at all unusual that with the help of the most advanced and new technologies, we use all the objects we have at our disposal in an interconnected form and, moreover, interact with them in various situations of our individual and professional lives; starting from these aspects, IoT (Internet of Things) which can possibly be considered as the most important technology of this century, can be defined as "a network of physical objects linked together that collects and exchanges information and data via the Internet" (Javaid et al., 2021, p. 1).

The Internet of Things technology "uses radio frequency identification technology, infrared induction technology, global positioning system and laser scanners and other sensing equipment, according to the agreed

protocol, connects objects and the Internet and realizes the intelligentisation of objects through information exchange and communication" (Chin et al., 2021, p.2). In recent years, the big companies in the ITC industry "have created IoT ecosystems, for faster development; the best known are Google and Microsoft, which launched the Android Things system and the Microsoft Windows IoT system" (Wu Zhao and Lei Yi, 2022, p.57).

Nowadays, IoT allows objects to be interconnected with each other, engaging sensors, specialized software and other various elements allowing multiple exchanges of data and information between devices and platforms, over the Internet; the multiple IoT applications are very well known, as well as the possibility that the use of these technologies can contribute to improving people's lives; from another perspective, the multitude of data collected in the use of IoT devices, created huge opportunities in identifying extremely valuable information regarding the users of these devices and technologies, in their different contexts and poses; the last years, thus, have brought to the fore a new concept, the Internet of behavior (IoB); based on a mix of technologies and behavioral psychology, IoB, generically, can be viewed as "a process of analyzing data collected in various IoT ecosystems and which allows the identification of some aspects related to the user experience, with the aim of trying to improve and optimize it"; IoB operates "in three areas: IoT devices, User/Search experience and Behavior" (Elayan et al., 2021, p.2).

IoB systems, can combine data from "multiple IoT environmental sensor sources with commercial customer data, citizen-driven data, data processed by public departments and government agencies, social media and geographic information science (GIS) data; Based on such data sets, data mining and machine learning enable people's behaviour to be analysed, then an IoB can enable different stakeholders. e.g. businesses. Authorities, citizens to better interpret human behaviour en mass" (Zhang et al., 2021, p.2).

Internet of Behavior (IoB) has been introduced by Gartner "as an extension of the IoT, that collects the digital tracks of people lives from a multitude of sources, determining people's attitudes, their interests, preferences and regular habits and practices and these information could reveal significant information on themselves and can be used to influence their behavior" (Salis, 2021, p.2).

IoB, can provide "to individuals and/or communities a new means to indicate selected and meaningful behavior patterns, as many as they like, by assigning a specific IoB address (analogous to the internet of things) to each behaviour"; from another perspective, "while the IoT is concerned with connecting devices, the IoB, leveraging on data analytics and behavioral science, is focused on connecting people and their behaviors and deals with tools and methods to best use the data to change or influence behaviors." (Salis, 2021, p.3).

IoB, thus, can also be considered as a "combination of IoT with AI techniques, now called Artificial Intelligence of Things (AIoT), used to analyze behavioral patterns to infer people's needs, interests and preferences; IoB, consists of collecting sensor data about a user (or multiple users) and analyzing it from a behavioral perspective to learn from the inferences derived to design better user experiences or when used in healthcare, to learn and respond to the actual needs of the patient; it can also be of great help in behavioral economics to analyze customer preferences" (Tinhinane et al., 2022, p.1-2). IoB, can also be viewed as "a socio-technical system design approach due to the underlying IoT, taking into account the interaction between behavior entities." (Stary, 2020, p.121).

Internet of behavior can also be interpreted as a mix of technologies "IoT, data analytics algorithms and AI, covering data, its type and applications, being the application of behavioural science" (Molla et al., 2021, p. 4). On the other hand, "one of the capabilities of IoB as a technology is mixing and matching of data, collected (different sources which are generated by different IoTs and applications; objective is to conduct psychosomatic analyses to assess behaviour of netizens" (Paritosh, 2021, p.72). A system of IoB technologies can cover a set of business purposes, such as "monitoring, understanding and influencing behaviours to achieve desired commercial such as improved customer services, personalisation of products and services and eventually revenue and societal goals"; from this perspective, there are also many known applications of IoB, of public and private interest, as they are:" digital marketing and research, mobility, public health, government, personal healthcare, cyber security, workplace relations (Molla et al., 2021, p. 5); also, with the help of IoB applications, they can be better understood "data and use this understanding to create new products, promote current products, redesign the value chain, increase profits or reduce costs from a psychology perspective" (Elayan et al., 2021, p.2).

From an IT outsourcing company perspective, IOB applications can cover the most important activities focused on consumers, namely: "monitoring consumers' buying trends across all social media platforms, tracking customers' buying journey, understanding customers' interaction with products/services, providing a point of sale notifications and target ads, resolving customer issues and ensuring that they are satisfied at the end of closing sales" (Digit, 2022).

According to a very well-known next-generation global technology company, IOB will allow managers to "examine customers' purchase habits across different platforms, access crucial data about consumers' interaction behavior with devices and products, magnify and analyze a consumers' buying journey, derive real-time notifications for point-of-sales and target ads, identify and resolve bottleneck procedures, provide better user experience" (Cron, 2022)

An important technology evaluation software company, identify a set of different types of data relevant to the IoB "social networking activities, IoT data (sensor readings. cameras. etc.), purchasing and spending habits, metadata, user location and the actions that take place at different locations, interactions with sales and customer support, biometric data (i.e. physical features, facial characteristics, etc.)"; also, IoB technology generates some important challenges, regarding "regulations (data privacy has become a significant political issue in many jurisdictions), especially after massive data breaches from platforms that rely on personal information, value (better products and services, outstanding customer experiences, etc.), security (IoB technology represents another potential attack vector for criminals to target)" (Techno, 2022).

In addition to the advantages and positive results of the use of IoB, the disadvantages and risks generated by the implementation of the applications of this technology must also be pointed out; the first of these problems arise from the fact that "are not able to manage heterogeneous data in different data formats; In fact, most of them only process time-series data using LSTMs, but sensors can capture a variety of data types, including images, videos and graphics" (Tinhinane et al., 2022, p.4).

On the other hand, IoB, "is faced with the affliction of how information is gathered, put away and utilized; Its degree of access is hard to control and in this way all organizations should know about the obligation of

IoB use; this presents critical legitimate and security danger to protecting individual rights, which can additionally change our behavior all throughout the planet; cybercriminals could take phishing to another level by creating further developed tricks and accordingly amplifying the probability that clients will be misled" (Rustemi and Tahiri, 2021, p.11).

It is obvious that the use of IoB applications produce important benefits for users and can ensure a degree of differentiation on the profile markets; some of the advantages generated by IoB technologies are: "quality of experience, increased profit, tasks automation, target customers, accuracy, real-time interaction" (Elayan et al., 2021, p.2); also, must be considered some aspects regarding "security, ethical use, Ostrich effect (a phenomenon that occurs when the rational mind believes something is important and the emotional mind expects it to be painful)" (Elayan et al., 2021, p.2).

A very important risk in the implementation of IoB applications also comes from the generation of a **"**huge volume of such data stored in data warehouses either in private or public cloud are the target zones for cybercriminals" (Paritosh, 2021, p.74). Then, "cybercriminals can steal not only scattered bits of sensitive medical records or banking details, but also deep behavioural patterns identified from a combination of cyber-physical systems and use that for fraud, espionage or blackmail" (Molla et al., 2021, p. 5).

Material and method(s)

IoB applications are available and used in all fields of human activity and in all industries; results of the use of IoB, also allowed the identification of some important aspects, including during the pandemic period that we were still going through and for which the World Health Organization emphasized that online shopping generated an addiction disorder for millions of people. (Gartner, 2022); according to a Gartner study, by 2023 "individual activities will be digitally tracked by an IoB to influence eligibility for benefits and services for 40% of people worldwide" (Gartner1, 2022). From this perspective, for companies a new level opens for the development of marketing strategies, by adopting some

IoB programs, resulting in the creation of extremely valuable sets of competitive and differentiating advantages in the conditions of a huge digital competition.

Starting from these elements, the conducted study aims to identify an image of the behavioral changes of people/users in the digital environment in crisis conditions, a pandemic; study regarding human behavioral changes in the digital environment in crisis conditions, took place in two stages (August 1 - 30. 2021 and January 15 - February 15. 2022), with the aim of covering two different periods, one of more intense restrictions and the other of relaxation; it was also followed, the surprise of some behavioral changes generated by the changes in our lives, of everyone by the emergence of the pandemic crisis; another level of study was opened to identify potential behavioral differences between users in Romania and those from other countries; the mobile survey was used, based on the administration of a questionnaire, covering the social networks widely used by individual users; generational structuring was used according to the year of birth of the respondents (after 1997 - Gen Z/iGen/Centennials, 1981-1996 - Millenials/ Gen Y, 1965-1980 – Gen X, 1946-1964 – Baby Boomers (BB) and 1928- 1945 - Silent Generation (SG); the behavioral changes were studied using several dimensions, namely: the ITC infrastructure used, preferred forms of online communication, online shopping habits and online professional activities; The sampling was carried out by simple random sampling; the final sample for the first stage, there were 733 subjects, of which 701 formed the final sample and for the second stage - 692 subjects, generating 685 valid questionnaires.

Results and discussions

The analysis of the collected data allowed the creation and identification of important profiles, namely:

- use of a specific ITC infrastructure;
- online communication;
- online shopping;
- online work;
- socio-demographic.

The obtained results highlighted important aspects regarding generational behavioral changes for all the levels studied. For both periods studied, in the easing of restrictions as well as during them, the structure of the sample of respondents from outside Romania, according to their country of origin, allowed the identification of a set of 8 countries with a greater representativeness (over 5%) - Italy, France, Spain, USA, Germany, Greece, Rep. Moldova and Great Britain (Figure 1); this fact can potentially be explained from two perspectives; on the one hand, considering the growing number of young people who in recent years have come from these countries to study in Romania, and on the other hand, considering the existence of important communities of Romanians, established in these countries.

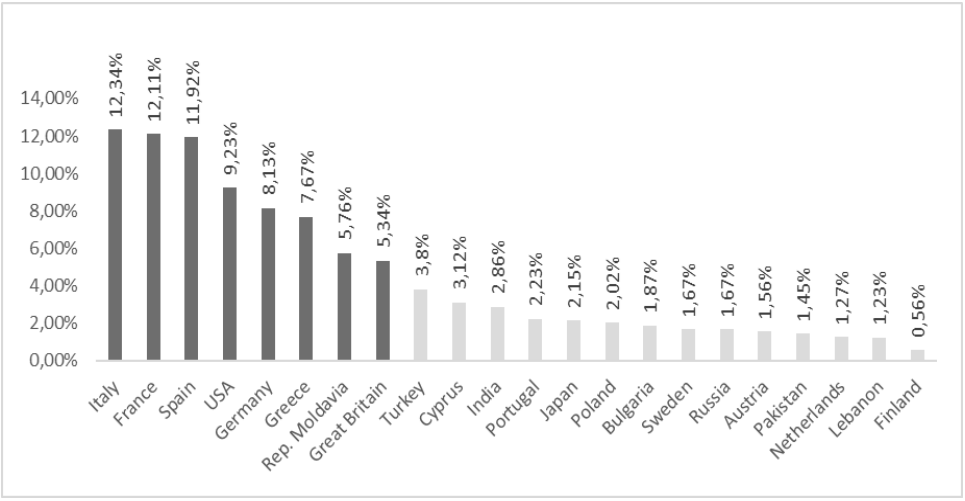

Figure 1. Sample structure (by country)
Source: author's data

From the socio-demographic perspective, the identified profile showed both similarities and differences between residents and non-residents in Romania (Table 1); for the entire population and for both studied periods, some similarities were identified:

• in the generational structure - the best represented generations were Gen X and Y;

• in the educational level - most respondents indicated high school and university studies;

• from the occupational perspective - the best represented are those who work/are employed (over 58% per total studied population).

The evolution of the number of respondents from the two categories and during both studied periods, led to the identification of some differences, namely:

• during the period of relaxation, Gen BB from Romania was more active than during the period of restrictions, compared to foreign respondents;

• in the case of Romanian respondents, the number of university graduates increased during the relaxation period, while the number of high school graduates decreased; in the case of non-residents, this evolution was reversed;

• Romanian respondents from the category of other occupations, became more active during the relaxation period, compared to those from other countries.

Differences also appeared in the gender structure of the respondents; in the case of Romanians, in both studied periods, women were more active, while in the case of respondents from other countries, there were men.

Table 1. Sample structure (socio-demo)

		Restrictions		Relaxation	
		Romania (%)	**Other countries (%)**	**Romania (%)**	**Other countries (%)**
Gender	Female	**54.23**	49.02	**50.65**	47.23
	Male	45.77	**50.98**	49.35	**52.77**
Generations	Gen Z	19.02	21.17	17.55	19.43
	Gen Y	**33.22**	**29.76**	**27.12**	**25.36**
	Gen X	**27.89**	**26.19**	**32.32**	**29.52**
Education	BB	17.05	20.53	18.89	17.67
	SG	2.82	2.35	4.12	8.02
	Basic	5.28	7.56	4.89	6.07
	High school	**29.03**	**32.13**	**26.78**	**39.69**
	College	27.94	22.63	24.21	20.45
	University	**30.02**	**28.81**	**36.11**	**30.06**
	Post university	7.73	8.87	8.01	3.79
Occupation	Students	18.32	16.52	22.74	23.22
	Employees	**70.65**	**63.51**	**60.37**	**58.63**
	Other categories (retirees, other occupations/other cases)	11.03	19.97	16.89	18.15

Source: author's data

The analysis of the data regarding the ITC infrastructure used (Table 2), surprised aspects related on the one hand to the type of device and category of software solution used in preference and on the other hand, to the preferred form of communication of the respondents.

Table 2. ITC infrastructure

	Restrictions		Relaxation	
	Romania (%)	**Other countries (%)**	**Romania (%)**	**Other countries (%)**
Preferred device for daily use				
Mobile devices	**60.24**	**58.92**	**79.11**	**68.89**
Non-mobile devices	39.76	41.08	20.89	31.11
Preferred software solution used				
Websites	**42.82**	**38.8**	**49.98**	**54.97**
Mobile apps	20.07	30.75	18.49	25.23
Social networks/media	37.11	30.45	31.53	19.80
Preferred form of communication				
Offline (face-to-face, letters, direct mail, printouts/publications, etc.)	11.01	15.01	24.92	27.02
Online/digital (e-mail, instant messaging apps, social networks, livechat, video-conferencing, other online tool)	**58.22**	**50.77**	**44.36**	**40.18**
Mobile (mobile calls, video-calls, SMS, messaging apps, social networks, etc.)	30.77	34.22	30.72	32.8

Source: author's data

The results obtained, in this case too, showed some elements of similarity; for the entire population and for both study periods, it was identified that:

• mobile devices are preferred (over 58% of the total population), with a higher percentage of users among respondents from other countries; the percentage of respondents who identified themselves as users of mobile devices, increased, in the period of relaxation, compared to the period of restrictions; in this case, a potential explanation arises from the individual's mobility during the period of relaxation, when it was necessary to use mobile devices for communication more than during the period of restrictions;

• the preferred software solution used by the respondents (with over 38.8% per total population), were websites; there is also an increase in websites preferred for use during relaxation;

• the preference for mobile applications and social networks, for the entire studied population, was decreasing during the relaxation period; this evolution can also be correlated with the increase in physical mobility of people during the relaxation period;

• online/digital communication (in its most common forms) was indicated by all respondents as being permanently preferred (over 40% per total population); here too, a decrease in the use of these forms of communication during the relaxation period is noted; also, the increase in respondents' preferences for offline communication, during the relaxation period, is also visible, which cannot be considered at all surprising.

The identification of shopping habits was initiated by establishing the preferred location for shopping (offline or online/mobile) (Table 3); the evolution of preferences for Romanians and those from other countries were extremely similar; all the respondents identified the preferred use of online locations during the period of restrictions (over 67% for the entire population) and also, the massive migration, during relaxation, to physical/offline locations (over 60% for the total population) was identified.

Table 3. Online shopping habits

	Restrictions		**Relaxation**	
	Romania (%)	**Other countries (%)**	**Romania (%)**	**Other countries (%)**
Products/services purchased/used online				
Food	**40.77**	48.34	**37.14**	45.22
Home / garden / DIY products	30.56	39.15	27.33	38.12
Electronics / home appliances	**39.82**	40.36	**30.16**	38.14
Clothing / personal care	**34.47**	37.98	21.22	29.76
Health products	19.01	22.34	8.05	18.12
Entertainment/fun	9.11	15.11	10.27	19.92
Utilities / invoices (C2B)	29.82	**69.11**	**35.12**	**68.77**
Taxes (C2A)	7.12	**69.72**	19.07	**70.22**

	Restrictions		Relaxation	
	Romania (%)	**Other countries (%)**	**Romania (%)**	**Other countries (%)**
Streaming services	16.17	20.33	10.36	18.12
Ticketing / booking	10.22	20.01	22.14	37.12
Travel & tourism/leisure/entertainment	8.12	11.76	17.92	30.33
Education / personal development	17.22	15.22	11.46	13.15
Online/mobile banking	18.65	**70.14**	22.37	**75.12**
Payment systems used				
Card payments	**39.78**	**67.12**	30.12	**51.67**
Cash / cash on delivery	30.17	7.67	**49.1**	8.05
Mobile payments	30.05	25.21	20.78	40.28

Source: author's data

The preferred online channels, the influencing factors in the purchase decision and the frequency of online purchases were also studied; as a common trend identified for the entire population, e-marketplaces prevailed for both periods (minimum 39% for the entire population) as the preferred channel for buying, followed by company websites;

The influencing factors in the decision to buy online/mobile, bring to the fore some differences both between the studied periods and between Romanians and foreigners; during the restrictions period, for the entire studied population, free delivery and 24/7 convenience were the main ones chosen; but, in the case of Romanians, the third important factor indicated was the price, and for foreigners, there were reviews, ratings/consumers opinions.

For the relaxation period, some differences were highlighted between the preferences of Romanians and those from other countries; if the Romanians were still influenced by the price of the products, in the case of the majority of respondents, the opinion of consumers/reviews and the existence of free delivery prevailed.

The frequency of purchase foreshadows another important difference between Romanian respondents and those from other countries; regardless of the period studied, Romanians choose to shop monthly (44.22% in restrictions and 38.11% in relaxation), while those from other countries prefer weekly shopping (44.16% in restrictions and 44.11% in relaxation).

To complete the picture of buying habits, aspects related to the category of preferred products/services in online/mobile purchases, as well as the payment method used in these situations, were also studied (Table 4); the results highlighted specificities for Romanian respondents vs. those from other countries; during the period of restrictions, for Romanians, priority was given to products and not services; the favorite category was food (40.77%), followed by electronics/home appliances and clothing/personal care; in the case of foreign respondents, their preferences were predominantly oriented towards services, starting with online/mobile banking (70.14%), followed by taxes (C2A) and utilities/ invoices (C2B); the relaxation period did not change the habits of foreign respondents; for them, online/mobile banking services (75.12%), followed closely by taxes (C2A) and utilities/invoices (C2B); in the case of Romanians, during the relaxation period, the food category (37.14%) remained at the top of preferences, followed by utilities/invoices (C2B) services (35.12%) and then by electronics/home appliances.

The preferred payment methods also highlighted some differences; for Romanians, card payments were preferred only in the case of restrictions (39.78%) as the main payment method, while in relaxation, their preference moved to cash (49.1%); for foreign respondents, the permanent preference for card payments remains clear (67.12% in restrictions/51.67% in relaxation), followed by mobile payments, while cash payment is the least preferred (7.67% in restrictions/8.05% in relaxation).

The analysis of the data regarding the performance of professional activities, identified both the preferred location for their performance, as well as the DM (device management) model preferred by the respondents in supporting these activities (Table 4).

The preferred location of the respondents, on the total studied population, was only the online one; the evolution of this preference depending on the periods studied, generated differences between Romanians and foreigners; in the case of Romanians, their preference, although it remained dominant for working only online, dropped considerably from the period of restrictions (60.71%) to the relaxation period (37.27%), appearing as a secondary preference for the hybrid work system; in the case of foreign respondents, the preference for working only online remained constantly high even during the relaxation period (65.85%).

Table 4. Professional activities

	Restrictions		Relaxation	
	Romania (%)	**Other countries (%)**	**Romania (%)**	**Other countries (%)**
Preferred workplace				
Office / company	15.12	9.33	27.11	19.13
Online only	**60.71**	**75.59**	**37.27**	**65.85**
Hybrid	24.17	15.08	35.62	15.02
DM model (device management) preferred for work				
Personal devices (BYOD)	20.11	23.82	39.34	37.11
Corporate-owned devices (COD)	**79.89**	**76.18**	**60.66**	**62.89**

Source: author's data

For the choice of DM preferred model for carrying out professional activities, the results remain similar as trends; all the respondents chose the CYOD (corporate-owned devices) model as their first preference, in the case of Romanians it forms a very important segment of users (79.89%); it can be observed that for the BYOD model, there is still an increase in the relaxation period for all users (39.34% Romanians/37.11% foreigners); the profiled results can potentially be correlated with an important level of concern regarding the confidentiality of private data and the desire to separate professional activities from private ones as much as possible.

The final module of the questionnaire provided data on the respondents' perception of the changes imposed by the crisis in their personal and professional lives (Table 5); for Romanians, there is a very

Table 5. Perceived changes in private/professional life in the pandemic

	Romania (%)		Other countries (%)	
	private	**professional**	**private**	**professional**
Strongly Disagree				
Disagree			22.73	
Neutral	**67.34**	13.09		18.19
Agree	30.49	**70.17**	**57.74**	**65.38**
Strongly Agree	2.17	16.74	19.53	16.43

Source: author's data

important segment of respondents who indicate neutral perceptions in the case of changes in private life (67.34%), but more important in professional life (70.17%); foreign respondents, felt the pandemic changes more intensely, both in their personal life (57.74%), but especially in their professional life (65.38%).

Conclusions

Finally, the obtained results allow the identification of complex profiles with generational/transgenerational behavioral specificities and which cover the four levels studied, bringing to the fore a comparative picture between two population categories, national vs. international.

In a first informational layer, three large transgenerational categories of users of the tools and solutions offered by the digital environment can be noted:

- **Z&Y - mobile&online-oriented**
  - They are Mobile-devices users (72.25%);
  - primarily focused on mobile shopping;
  - using e-marketplaces and proprietary mobile apps;
  - do weekly shopping, preferring clothes and electronics, followed by streaming services and payment of utilities / bills and fees, mobile banking services;
  - they are influenced by online prices and reviews and prefer card and mobile payment;
  - they prefer online delivery systems and online and contactless payments;
  - they orient themselves and use mobile promotion tools and strategies;
  - in professional life they prefer office and online work and CYOD (42.12%), in device management models;
  - in their perception of pandemic changes in their private and professional lives, 69.23% indicated a high influence;

- **BB&X - online&offline-oriented**

  - being preferably users online &mobile infrastructure;
  - using websites in their online activities;
  - oriented towards online communication and shopping;
  - they need monthly purchases, from the food and home/garden/ DIY products category and online banking services;
  - are influenced by convenience 24/7 and free delivery;
  - preferably paying cash and by card;
  - in professional life they prefer hybrid and online work and BYOD, surprisingly, in device management models;
  - in their perception of pandemic changes, 57.12% indicated that they were affected and the rest of them indicated a neutral influence;

- **SG - offline-oriented**

  - they prefer the offline environment for communication and shopping; but still use the digital/online environment 21.57% and mobile (30.17%) for communication;
  - for the active ones, prefers to work in the office, probably out of the need for solicitation;
  - prefer cash payment (73.12%), but also there is a segment of online banking services users (22.56%);
  - declare that they were strongly affected by pandemic (66.83%).

Apart from these general profiles and valid for the entire studied population, other important and useful aspects can be highlighted that allow completing a more complex picture:

- from the perspective of online work, Gen X and Y have some common characteristics; 81.13% of them indicated that they work online and 52.17% of them prefer the BYOD work system; the small percentage (12.89%) of those who wish to return to the on-site/ offline work system is surprising; for respondents from Romania, an important difference appears; only 29.13% of them want to return to physical work, and 48.34% prefer the hybrid work format;
- regarding the change in online shopping preferences, an important segment is emerging in the case of Gen Z; 65.78% of them indicated that they use the online environment for most purchases for

products from the categories usually purchased; for them, in choosing a certain online provider, the existence of a proprietary mobile application is the most important differentiating factor (72.11%), followed by the existence of a home delivery application/ system;

- the perception regarding the collection and use of individual data by online providers, in order to outline the buyer's profile, generates different levels of acceptance between generations; Gen Z (46.13%) considers this practice very useful for the speed of orders; Gen X and Y (74.11%), are against these strategies;
- the different percentage, depending on the generations, can be considered surprising, in terms of awareness and concern regarding the aspects related to the confidentiality and security of private data, especially in the situation where our life migrates so much towards the digital environment; Gen Z is the least interested in these aspects (20.75%) in the case of respondents from Romania, compared to 29.65% in the case of respondents from other countries; the most attentive to these aspects turns out to be Gen X, (69.12%) in the case of Romanians and 63.12% in the case of foreigners.

The results of the study allow online companies to find important information in order to design development and promotion strategies starting from the identified behavioral profiles and from the generational segmentations obtained.

Likewise, cyber-bidders can also identify specific elements, which can be considered in the adoption of IoB applications, for building a set of competitive differentiation in the digital environment.

Limitations

The current study presents some limitations related primarily to insufficient representativeness; then, given the complexity of the study and the attempt to include and compare segments of populations with very complex regional and generational profiles, as well as the study of two time periods with somewhat opposite characteristics during a crisis,

an insufficient coverage of all aspects could be generated, in the analysis of the collected data; however, we consider that the obtained results can offer multiple possibilities for the development and expansion of the study in various and much more complex directions.

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THE IMPACT OF PANDEMIC ON YOUTH TRAVEL PREFERENCES – AN INTERNATIONAL PERSPECTIVE

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OANA ADRIANA GICĂ[1], ORSOLYA IULIA OLÁH[2], ELISABETA BUTOI[3]

ABSTRACT. The pandemic has significantly affected international tourism and in order to reach the level of travel recorded in 2019, a series of measures and strategies are needed that take into account the new perspective of tourists on travel. In this context, the primary purpose of this paper is to provide an analysis of the effect that COVID-19 has on travel activity preferences, subdividing the young tourists, and most important, how their travel behaviors changed following the pandemic. A questionnaire-based survey has been conducted on consumers of tourist services aged 18-29 years of various nationalities. The key topics investigated were the travel motivations, the criteria according to which they choose the destinations, the type of tourist destination chosen, the average length of stay and activities they prefer to do while traveling. It was analyzed if these preferences changed during the pandemics and among Romanian and foreign young tourists. As young tourists represent a significant segment of international tourism, it was considered that is important for the managers to know how consumers' behaviors and preferences changed, so they can adapt to them in an effort to reach the pre-pandemic levels of activity.

Keywords: travel, youth, COVID-19 pandemic, behavior

[1] Assoc. prof. PhD, Faculty of Business, Babeş-Bolyai University, Cluj-Napoca, Romania. Email: oana.gica@ubbcluj.ro
[2] Graduate, Faculty of Business, Babeş-Bolyai University, Cluj-Napoca, Romania. Email: olahorsi9@gmail.com
[3] Assist. Prof. dr., Faculty of Business, Babeş-Bolyai University, Cluj-Napoca, Romania. Email: elisabeta.butoi@ubbcluj.ro.

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Introduction

The pandemic affected severely not only the global economy but also the health, social and livelihood (Cheung et al., 2021). As people travel, consume, learn, work, socialize and communicate, the COVID-19 has perturbed significantly the human behavior (Huen, 2020).

Tourism is an industry "at the right place and time", relying on friendly framework conditions such as peace, political stability, stable economic growth and good sanitary conditions to travel away from home. Its cross-industry nature makes the tourism industry vulnerable to a variety of dangerous developments that could lead to a crisis (Keller, 2020). COVID-19 is "larger in size and scope than previous epidemics" (Zheng et.al, 2021) and its' impact on the global travel industry proved to be more severe than previous crises as the strategies to cope with this pandemic included travel restrictions, controls of personal movement and even the closure of public services and businesses in many countries (Richards and Morrill, 2021).

Youth tourism has sprung up with the travel flow of students, volunteers, language learners, participants in cultural exchange programs, backpackers and digital nomads (Asan, 2021). According to WYSE Travel Confederation, 23% of international tourists are young people under the age of 30. Additionally, the youth tourism market generated nearly $330 billion in tourism revenue in 2018 (WYSE Travel Confederation, 2021).

Young tourists have unique personalities in a well-defined tourist market; they connect easily and make friends; they easily use the Internet and social media applications; and they have the desire to discover and learn about new cultures (Marian-Pantelescu, 2021). Youth visit different destinations and see them as opportunities to study and grow. They are

craving for authentic experiences, want to experience local culture and establish social contacts with their hosts and with other travelers. However, this desire for social contact has become a challenge for the travel industry, particularly as travel itself has been linked to spreading Covid-19 (Farzanegan et al., 2020). Like all travel markets, the youth travel market has declined sharply due to the pandemic.

Richards and Morrill (2021) studied travel businesses that were targeting young travelers during the epidemic. These businesses faced different difficulties compared to travel companies that focus on a larger market. For example, providing social distancing or reducing capacity was very problematic for hostels where rooms are designed for a larger number of guests. The measures adopted as response to the crisis included changing terms and conditions, increased marketing, creating partnerships, shifting business online, improving quality, developing products for local and regional markets and also attracting a new type of client – the digital nomad.

Rončák et al. (2021) investigated the impact of safety concerns on travel behavior of Generation Z Czech students during the COVID-19 pandemic. Their study showed that on short term domestic tourism was preferred, but in the long-run international travel should be resumed while individual travel and small accommodation facilities will be favored over traveling in groups. Also, Generation Z is eager to travel and would like to travel in the future the same way as before the pandemic and are not afraid to go to restaurants, bars, discos, and even significant events or travel by public transport and by plane. Safety concerns will continue to play an important role in the decision-making process, hence the destination needs to observe strict health and safety protocols, which will help regain the confidence of young travelers.

Caldeira et al. (2022) conducted a study on young people of Egypt to analyze the impact of COVID-19 on tourism safety perceptions, acceptance of restrictions, and the intention to change behavior during the pandemic. The findings of this research point out that the perceptions of safety increased as the pandemic evolved and young people maintained the intentions for self-regulatory behavior. As they are less affected by sever forms of COVID-19 and are confident in their self-efficacious behavior, the youngsters feel safer about travelling, thus this market segment has a high potential in this crisis context.

Travel motivations and tourists' needs influence the destination choice as tourists will choose the destinations that they perceive will be able to meet them. Also, different market segments have different travel motivations and expectation, thus tourism businesses and policy makers need to develop strategies that are tailored to these particular needs in order to attract tourists in their businesses and destinations (Matzler and Siller, 2003).

The tourism industry is very sensitive to changes in safety and health. In particular, infectious diseases have a direct impact on travel decisions and destination selection. The presence of risk, whether real or perceived, affects tourists' travel plans and travel behavior. Learning more about the changes in travel motivations, behavior and preferences during the COVID-19 pandemic can be very useful for tourism businesses and policy makers to develop and implement strategies to attract young tourists and also to be able to manage better future events of this nature.

Many studies regarding the impact of pandemics have been conducted since the outbreak of COVID-19, but the studies focusing of the young people are limited (Seabra et.al, 2021). Young tourists have longer stays at destinations, are likely to return later in their life (Richards, 2011), manifest an important influence on other generations (Francis and Hoefel, 2018) consequently they represent an attractive segment. Moreover, this segment generally declined less and recovered faster than mainstream tourism when affected by crisis (Richards, 2011). Young people are expected to return sooner to travelling as before (Caldeira et al., 2022) so getting insight on the behavior and attitudes of young generations is of high importance (Caber et al., 2020).

In this context, the purpose of this research was to investigate the impact Covid-19 pandemic had on international young travelers' behavior. The travel aspects investigated were: the preferred type of destination, the criteria used for destination choice, the favorite activities during travel, travel motivations and travel duration. The remainder of the paper is structured as follows: the second section provides details about the research methodology employed and formulates the research objectives and hypotheses. The third section is dedicated to the presentation and discussion of the results and the last section concludes the main findings of the research, identifies research limitations and future research directions.

Research Methodology

The overall purpose of this research was to investigate whether and how the COVID-19 Pandemics influenced the travel behavior of young travelers of different nationalities. In order to attain this general goal, the following research objectives were formulated:

O1. *Identification of youth traveler preferences changes due to the Pandemics regarding the type of destination chosen.*

O2*. Identification of youth traveler preferences changes due to the Pandemics regarding the criteria used for choosing a destination.*

O3. *Identification of youth traveler preferences changes due to the Pandemics regarding the motivation of travel.*

O4. *Identification of youth traveler preferences changes due to the Pandemics regarding the preferred activities during travel.*

O5. *Identification of youth traveler preferences changes due to the Pandemics regarding the length of stay in a destination.*

It was investigated if the Pandemics influenced differently the Romanian travelers compared to the foreign travelers so the following general hypotheses were issued:

H1: The pandemics influenced the type of destination preferred, differently among Romanians and other nationalities.

H2: The pandemics influenced the criteria used for choosing a destination, differently among Romanians and other nationalities.

H3: The pandemics influenced travel motivations, differently among Romanians and other nationalities.

H4: The pandemics influenced the preferred activities during travel, differently among Romanians and other nationalities.

H5: The pandemics influenced the length of stay in a destination, differently among Romanians and other nationalities.

Given the above-mentioned research objectives and hypotheses it was employed a quantitative research method, namely a questionnaire-based survey. A questionnaire in Romanian was developed to collect data from the Romanian travelers and another one in English to obtain information from foreign travelers. The questionnaires were implemented online, using Google forms. For data analysis, IBM SPSS 24 software was employed. To test the hypotheses, the Chi Square and ANOVA Tests were used.

Sample characteristics

The questionnaire was completed by 234 respondents, 146 were Romanian youth travelers and 88 from other countries.

The largest share of respondents (68.4%) was aged between 21 and 25 years, 16.2% between 18 and 20 years and 15.4% between 26 and 29 years. Most of the respondents have a monthly income of less than 300 euros, 25.2% have an income between 300 and 500 euros and only 16.7% have an income higher than 1000 euros. The distribution based on gender shows that 50.4% are women and 49.6% are men. Over 61% of the respondents were students while 17.9% declared they hold an execution function and 8.1 % a managerial position (see Figure 1).

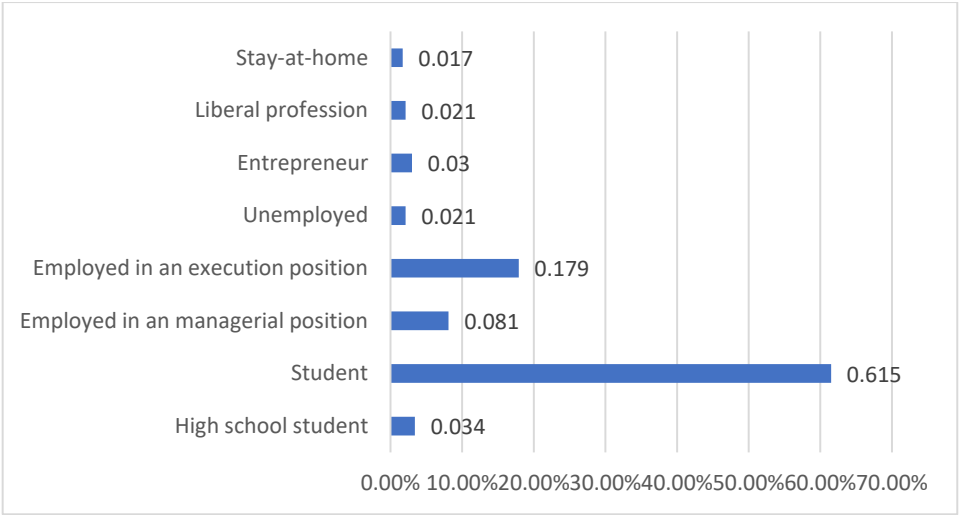

Figure 1. Occupation of respondents

Source: Authors' own elaboration

When it comes to marital status, 49.1% are unmarried, 41.5% are in a relationship, and 8.1% are married. The majority of the respondents were Romanians (62.4%) followed by other European nationalities (29.1%) and Asians (3.8%) (see Figure 2).

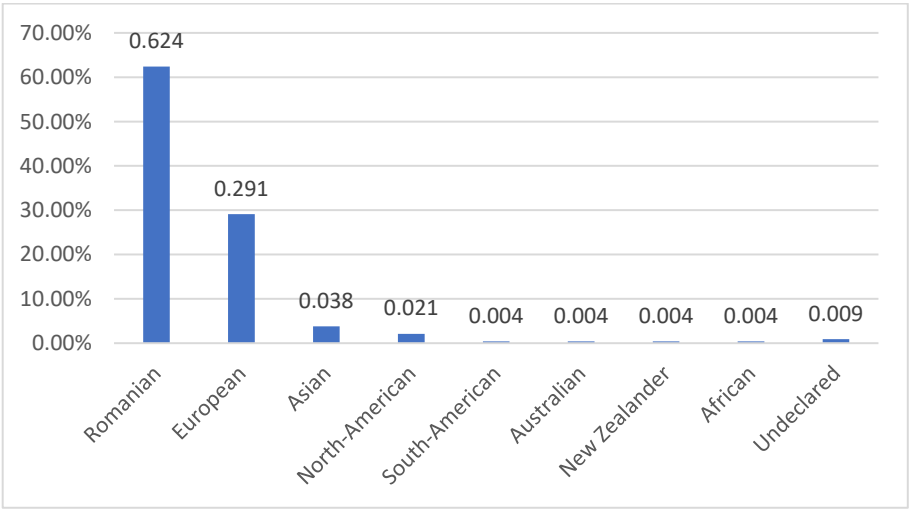

Figure 2. Nationality of respondents

Source: Authors' own elaboration

Results and discussions

O1. Identification of youth traveler preferences changes due to the Pandemics regarding the type of destination chosen.

As one can see in **Figure 3**, before the pandemic, the largest share of travelers preferred the cities (73.1%), followed by seaside resorts (58.1%), and leisure destinations (55.6%). Mountain resorts (47.4%) and cultural destinations (40.6%) also hold an important share of tourists' preferences. With the advent of the COVID-19 pandemic, the situation has changed. Most tourists have preferred in this new context to travel to mountain resorts (48.7%) as they chose to spend more time outdoors, in nature, away from crowds where they could get infected with the COVID virus. The percentage of tourists that preferred this type of destination has not been affected very much by the pandemic, the percentage increasing only with 1.3%. The leisure destinations suffered the largest decrease in the number of tourists (39.4%), probably due to restrictions. One can observe that city visits decreased significantly by 25.7% and also the visits to seaside resorts decreased by 23.1% compared to the period

before the pandemic probably due to congestion in this type of destinations. Not surprisingly, rural destinations have remained at the same weight in tourists' preferences as these destinations are usually not crowded, and the fresh air and peace have attracted tourists to these destinations even during the pandemic.

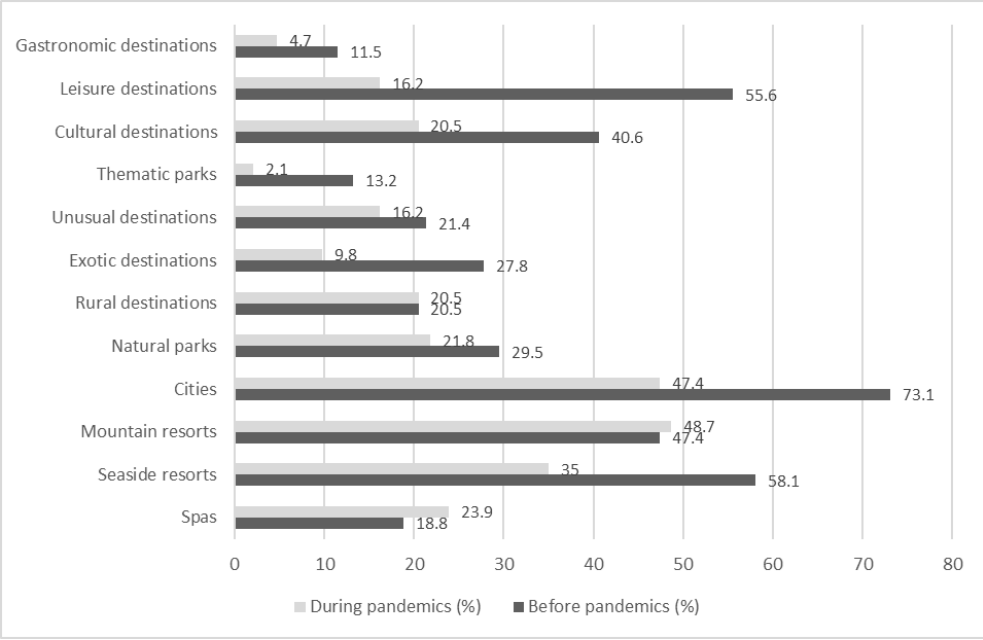

Figure 3. Type of destination

Source: Authors' own elaboration

H1: The pandemics influenced the type of destination preferred, differently among Romanians and other nationalities.

The Chi square test was used to investigate the influence of the pandemics on the type of destination preferred by the young travelers. The results (see Table 1) indicate that the pandemics influenced the Romanian travelers to a larger extent as compared to foreign travelers when it comes to destinations such as seaside resorts, cities, exotic destinations, thematic parks, cultural destinations or gastronomic destinations

(all of them less preferred during the pandemics), or SPA destinations (were chosen by more persons during the pandemics). COVID-19 influenced foreigners in terms of destination choices like Spa resorts (none of the respondents chose to travel in such a destination during the pandemics), exotic destinations and thematic parks (were less preferred during the pandemics). An interesting result is that the Romanian travelers chose during the Pandemics to travel more in SPA resorts whereas the foreigners didn't choose at all such a destination during the Pandemics.

Table 1. The influence of pandemic on choice of destinations (Chi square test results)

Type of destination	Romanians				Other nationalities			
	Before (%)	During (%)	Chi square	p value	Before (%)	During (%)	Chi square	p value
Seaside resorts	64.4%	30.8%	32.966192	0.000	47.7%	42.0%	0.574188	0.544515
SPAs	20.5%	38.4%	11.142019	0.0012	15.9%	0%	15.209877	0.000
Mountain resorts	56.8%	59.6%	0.225265	.722	31.8%	30.7%	.026	1.000
Cities	78.1%	42.5%	38.674	.000	64.8%	55.7%	1.518	.281
Reservations/ natural parks	27.4%	18.5%	3.273	.094	33.0%	27.3%	.675	.511
Rural destinations	19.9%	19.2%	.022	1.000	21.6%	22.7%	.033	1.000
Exotic destinations	24.0%	6.8%	16.419	.000	34.1%	14.8%	8.894	.005
Outstanding destinations, less visited or known	20.5%	13.7%	2.413	.162	22.7%	20.5%	.134	.855
Thematic parks	11.6%	0.7%	15.157	.000	15.9%	4.5%	6.188	.023
Cultural destinations	33.6%	8.9%	26.538	.000	52.3%	39.8%	2.768	.130
Leisure destinations	14.4%	8.9%	2.130	.201	36.4%	28.4%	1.271	.334
Gastronomic destinations	11.0%	0.7%	14.053	.000	12.5%	11.4%	.054	1.000

Source: Authors' own elaboration

O2. Identification of youth traveler preferences changes due to the Pandemics regarding the criteria used for choosing a destination.

The most used criteria for choosing a destination by young travelers both before and during the pandemics was the tourist attractions in that destination (76.9% before the pandemics and 77.8% during the pandemics).

The cost of stay in the destination comes second in the list of criteria used both before and during the pandemics with an increase of 12.3% during compared to before the pandemics. This increase can be explained by the fact that young travelers perceived the pandemic as a crisis so they reduced their travel budget. A significant change can be noticed in the case of safety as a criterion used in the process of choosing the travel destination. Before the outbreak of the COVID-19 pandemic this criterion was the 5th in the list of criteria while during the pandemics due to an increase of 27.3% it climbed the 2nd place in this list. This shows a significant fear of getting infected with the virus and also a risk-averse behavior of young travelers. The 3rd most used criterion was both before and during the pandemic the accessible transport to the destination. For this criterion also it can be observed an increase of 11.4% during the pandemics compared with before the pandemics. A possible explanation can be related to the financial reasons but most importantly to the perceived high risk of getting infected during the transportation. An interesting finding is the decrease in importance as a selection criterion of the variety of dining options (17.1%) and of the variety of accommodation options (14.6%) during the pandemics.

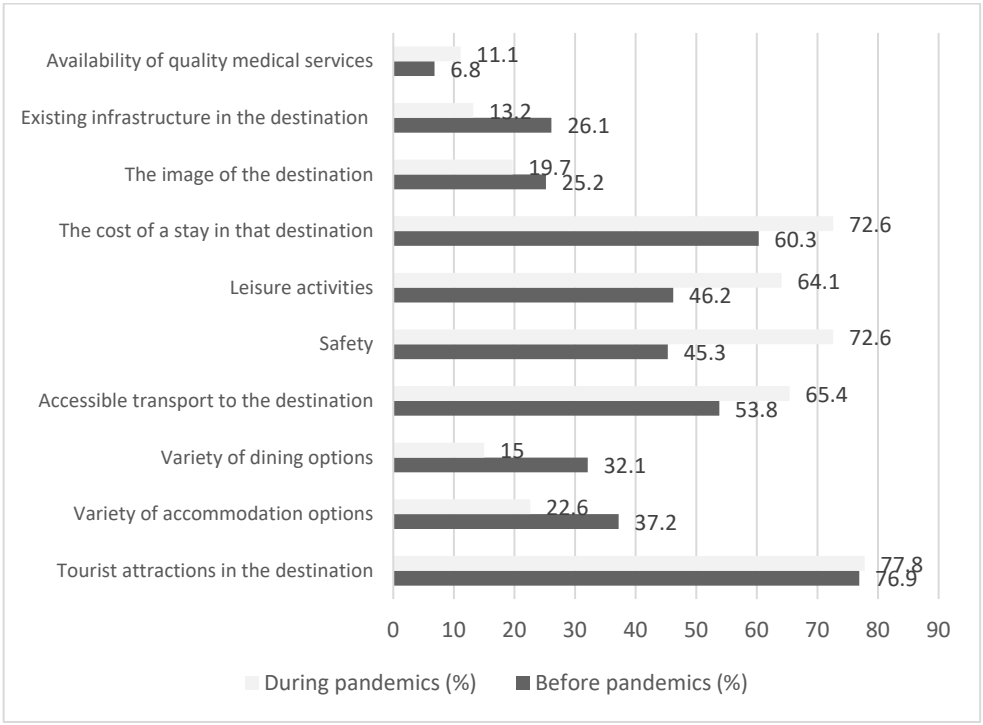

Figure 4. Criteria for choosing a destination to travel
Source: Authors' own elaboration

H2: The pandemics influenced the criteria used for choosing a destination, differently among Romanians and other nationalities.

The Chi square test results (see Table 2) indicate that 8 out of 10 criteria used for selecting the destination were influenced by the pandemics in case of the Romanian young travelers. The criteria: tourist attractions, accessible transport to the destination, safety, leisure possibilities and the cost of the tourist package were considered by more tourists during the pandemics, while the variety of accommodation, the variety of dining options as well as the infrastructure in the destination have been considered by fewer travelers. For the foreign travelers, only 2 criteria were influenced by the pandemics, namely the tourist attractions (which were considered by fewer tourists) and the availability of good quality medical services (which were considered by more tourists during the pandemics).

Table 2. Influence of the pandemics on the criteria for choosing a destination to travel (Chi square test results)

Criteria for choosing a destination	Romanians				Other nationalities			
	Before (%)	During (%)	Chi square	p value	Before (%)	During (%)	Chi square	p value
Tourist attractions in the destination	78.1%	91.1%	9.484	.003	75.0%	55.7%	7.251	.011
Variety of accommodation options	34.2%	13.0%	18.237	.000	42.0%	38.6%	.212	.759
Variety of dining options	25.3%	4.8%	24.084	.000	43.2%	31.8%	2.424	.161
Accessible transport to the destination	58.2%	82.2%	20.056	.000	46.6%	37.5%	1.492	.285
Safety	42.5%	83.6%	52.899	.000	50.0%	54.5%	.364	.651
Leisure activities	46.6%	80.8%	37.026	.000	45.5%	36.4%	1.504	.283
The cost of a stay in that destination	57.5%	82.2%	21.080	.000	64.8%	56.8%	1.168	.354
The image of the destination	13.0%	11.0%	.292	.719	45.5%	34.1%	2.372	.166
Existing infrastructure in the destination	27.4%	5.5%	25.530	.000	23.9%	26.1%	.121	.862
Availability of quality medical services	6.8%	4.1%	1.058	.442	6.8%	23.8%	9.670	.002

Source: Authors' own elaboration

O3. Identification of youth traveler preferences changes due to the Pandemics regarding the motivation of travel.

The main travel motivation was relaxation/stress reduction, having a share of 81.6% before the pandemic and registering a 6% decrease during the pandemic. Another important motivation was having fun and adventure, but it decreased between the two periods by 23.9% (the largest decrease of all motivations), this not being so important for tourists with the outbreak of the pandemic. On the 3rd place in terms on the travel motivations is the desire to create new memories both before and during the pandemics but with an important decrease of 17.1% during the pandemics. The same important 17.1% decrease was recorded for the "to get to know different people and lifestyles" and an even higher decrease by 21.8% was registered for the motivation "see more places on Earth" due to the restrictions on international travel imposed by governments but also to the fear of getting infected.

What is noteworthy is that the motivation to strengthen the relationship with the partner registered an 8.1% increase during the pandemics, this being due to the restrictions during the pandemic, to the fear of getting infected or infecting others but also due to the fact that many individuals become more conscious of the importance spending more time with the dear ones.

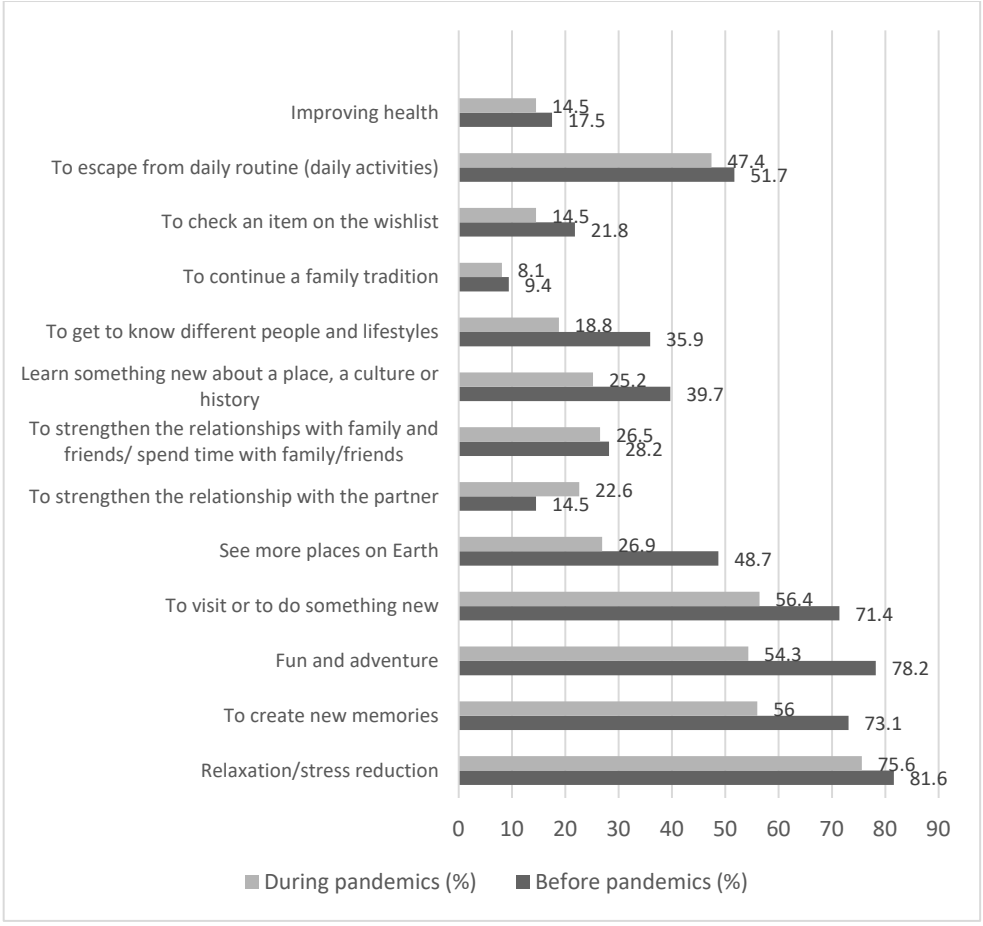

Figure 5. Motivation of travel

Source: Authors' own elaboration

H3: The pandemics influenced travel motivations, differently among Romanians and other nationalities.

In what concerns the influence of the pandemics on the travel motivations of young travelers the results of the Chi square test (see Table 3) indicate that the Romanians were influences to a greater extent by the Covid 19 compared to the foreign travelers. During the crisis period the young Romanians traveled less for reasons like: the desire to create new memories, fun and adventure, to visit or to do something new, to see more places on Earth, to learn something new about a place, a culture or history, to get to know different people and lifestyles and more with the purpose of strengthening the relationship with the partner. In the case of foreign travelers, the pandemics influence exists only for the travel motivations fun and adventure and to see more places on Earth (both of them were travel motivations for fewer tourists during the pandemics).

Table 3. Influence of the pandemics on the travel motivations (Chi square test results)

Travel motivations	Romanians				Other nationalities			
	Before (%)	During (%)	Chi square	p value	Before (%)	During (%)	Chi square	p value
Relaxation/stress reduction	88.4%	79.5%	4.286	.055	70.5%	69.3%	.027	1.000
To create new memories	73.3%	52.7%	13.225	.000	72.7%	61.4%	2.572	.149
Fun and adventure	74.7%	47.9%	21.957	.000	84.1%	64.8%	8.628	.005
To visit or to do something new	71.9%	52.1%	12.223	.001	70.5%	64.8%	.649	.520
See more places on Earth	39.0%	15.8%	19.903	.000	64.8%	45.5%	6.638	.015
To strengthen the relationship with the partner	12.3%	21.9%	4.730	.043	18.2%	23.9%	.856	.460
To strengthen the relationships with family and friends/ spend time with family/friends	21.9%	20.5%	.082	.886	38.6%	36.4%	.097	.876
Learn something new about a place, a culture or history	36.3%	21.2%	8.089	.006	45.5%	31.8%	3.451	.088

Travel motivations	Romanians				Other nationalities			
	Before (%)	During (%)	Chi square	p value	Before (%)	During (%)	Chi square	p value
To get to know different people and lifestyles	34.2%	15.8%	13.315	.000	38.6%	23.9%	4.469	.050
To continue a family tradition	6.8%	8.2%	.197	.825	13.6%	8.0%	1.475	.331
To check an item on the Wishlist	21.2%	13.0%	3.475	.087	22.7%	17.0%	.892	.450
To escape from daily routine (daily activities)	54.8%	44.5%	3.082	.101	46.6%	52.3%	.568	.547
Improving health	21.2%	15.8%	1.454	.291	11.4%	12.5%	.054	1.000

Source: Authors' own elaboration

O4. Identification of youth traveler preferences changes due to the Pandemics regarding the preferred activities during travel.

The favorite activity of youth before the pandemic was going to the beach, but it decreased during the pandemic by 12.8%. A percentage of 55.1% of the respondents declared that before the pandemic visiting historical attractions was among the activities they preferred, but this share decreased during the pandemic by 30.7%, due to the fact that usually these places are crowded but also another reason was the fact that during the pandemics many of the historical attractions were closed to the public or required a vaccination certificate for visiting. Another favorite activity is mountain hiking. More than half of the young travelers chose this activity as their preferred one in both periods, and even after the onset of the pandemic, the percentage increased by 3.4%. An explanation is that this is an outdoor activity so the risk of infection is reduced. Art museums have disappeared from the list of young tourists during the pandemic, decreasing by a proportion of 24.4% and also serving meals in famous locations recorded an important decrease of 20.1%. The reasons behind this change in preferences are the restricted access in such locations (only based on green certificate) and the fact that they were closed many periods of time during the pandemics.

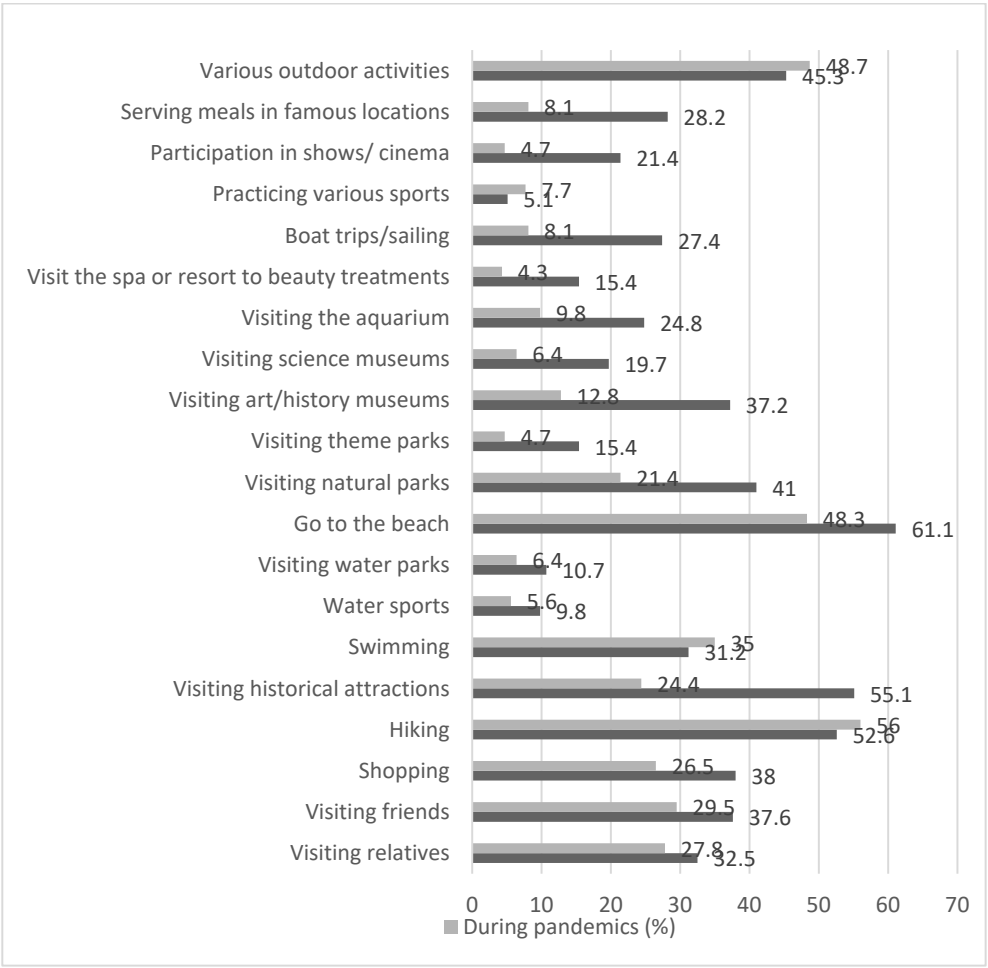

Figure 6. Favorite activities

Source: Authors' own elaboration

H4: The pandemics influenced the preferred activities during travel, differently among Romanians and other nationalities.

The influence of the pandemic on the activities carried out during the trips was statistically demonstrated, in the case of Romanian tourists, for 70% of the investigated activities. For all these activities, with one exception, there was a decrease in their practice during the pandemic (see Table 4). The exception is swimming, which was practiced by more people during

travels in the pandemic period. The pandemic influenced the activities of foreign tourists to a lesser extent, only the practice of three types of activities being influenced by this crisis (in the case of all the number of tourists who performed these activities being smaller during the pandemic).

Table 4. Influence of the pandemics on favorite activities during travel (Chi square test results)

Activities	Romanians				Other nationalities			
	Before (%)	During (%)	Chi square	p value	Before (%)	During (%)	Chi square	p value
Visiting relatives	29.5%	19.2%	4.187	.056	37.5%	42.0%	.380	.644
Visiting friends	34.2%	20.5%	6.887	.012	43.2%	44.3%	.023	1.000
Shopping	34.9%	23.3%	4.796	.039	43.2%	31.8%	2.424	.161
Hiking	59.6%	65.8%	1.186	.333	40.9%	39.8%	.024	1.000
Visiting historical attractions	58.2%	20.5%	43.395	.000	50.0%	30.7%	6.823	.014
Swimming	23.3%	38.4%	7.774	.008	44.3%	29.5%	4.123	.061
Water sports	2.7%	4.1%	.414	.750	21.6%	8.0%	6.498	.018
Visiting water parks	7.5%	4.1%	1.561	.318	15.9%	10.2%	1.250	.371
Go to the beach	57.5%	52.7%	.678	.480	67.0%	40.9%	12.099	.001
Visiting natural parks	34.9%	14.4%	16.591	.000	51.1%	33.0%	5.969	.022
Visiting theme parks	16.4%	2.1%	17.997	.000	13.6%	9.1%	.903	.477
Visiting art/history museums	32.9%	6.2%	33.157	.000	44.3%	23.9%	8.193	.007
Visiting science museums	20.5%	3.4%	20.289	.000	18.2%	11.4%	1.625	.288
Visiting the aquarium	26.0%	8.2%	16.313	.000	22.7%	12.5%	3.172	.112
Visit the spa or resort to beauty treatments	15.1%	2.7%	13.680	.000	15.9%	6.8%	3.610	.094
Boat trips/sailing	25.3%	1.4%	36.252	.000	30.7%	19.3%	3.030	.117
Practicing various sports	0.7%	6.2%	6.627	.019	12.5%	10.2%	.226	.813
Participation in shows/ cinema	28.8%	3.4%	34.715	.000	9.1%	6.8%	.310	.782
Serving meals in famous locations	32.2%	8.2%	26.020	.000	21.6%	8.0%	6.498	.018
Various outdoor activities	48.3%	58.2%	2.883	.099	42.0%	33.0%	1.552	.276

Source: Authors' own elaboration

O5. Identification of youth traveler preferences changes due to the Pandemics regarding the length of stay in a destination.

Regarding the length of the stay, one can see that it has not undergone very big changes between the two periods (see Figure 7). Only the 1-2 days stays have increased by a higher proportion, of 13.7% during the pandemic, this showing a greater interest on weekend or very short trips. One can see that the most common length of stay is that of 3-5 days, which recorded a decrease of only 5.6% during the pandemic. Similarly, tourists chose second both before and during the pandemics, a duration of 6–7 days, decreasing only by 4.7% during the pandemics. Interestingly, although in a small proportion of only 2.1%, stays of more than 14 days have increased during the pandemic. Probably this represent travels to very distant destinations were there were no or only few restrictions and when travelling long distances the length of stay is usually longer.

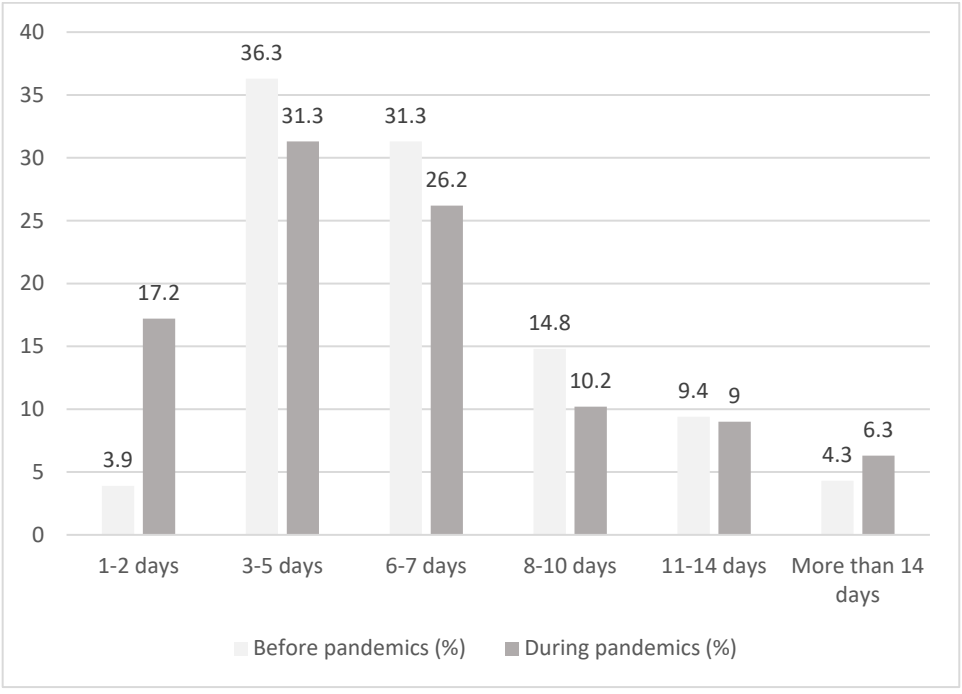

Figure 7. Length of stay

Source: Authors' own elaboration

H5: The pandemics influenced the length of stay in a destination, differently among Romanians and other nationalities.

An ANOVA Test has been performed to see if the pandemic influenced the length of stay. Surprisingly, the results show that COVID-19 didn't influence the average length of stay neither of Romanian youth travelers nor of foreign travelers (see Table 5).

Table 5. Influence of the pandemics on the length of stay (ANOVA test results)

Nationality		N	Mean	ANOVA	
				F	p value
Romanian	*Before Pandemics*	146	2.68	1.959	.163
	During Pandemics	146	2.48		
Foreign	*Before Pandemics*	88	3.59	1.294	.257
	During Pandemics	88	3.36		

Source: Authors' own elaboration

Conclusions

The tourism industry is an important sector of the economy, and the coronavirus pandemic has affected this industry to a great extent. Young people are an important segment in the tourism industry. They are curious, eager to know about new places and cultures and ready for adventure. For these reasons, it was considered important to analyze the change in their behavior.

The present research has shown that tourists prefer mountain resorts, seaside resorts and cities to a greater extent. Although the percentage has decreased, these destinations have remained the preferred by the majority of the respondents. Accordingly, the most popular activities were going to the beach and hiking. Also, practicing outdoor activities have increased significantly between the two periods, and those such as going to the cinema, concerts and those in closed spaces have decreased, given the restrictions during the pandemic. The motivation for the trips is mostly relaxation and leisure, and the duration of the trip is usually between 3–5 days.

The correlation tests showed that the Romanian tourists were affected to a greater extent by the pandemic. Compared to the foreign ones, they perceived this pandemic differently. It was considered that the consumer's perception of tourist services during the pandemic can also be influenced by nationality, the culture in which the traveler grew up, the values and perceptions accumulated. It can be concluded that foreign tourists were more daring and continued to travel, and their habits did not change much. They applied caution while traveling and continued to carry out their favorite activities in the tourist destinations.

The main limitation of this study are the small sample size and the fact that the continents were not proportionally represented in the investigated sample, thus the findings of this study can be generalized. Nonetheless, it was considered that some of the findings could be valuable for managers of tourism businesses, policymakers and destination management organizations, in the post-pandemic era and could help them identify strategies and efficiently target young travelers.

As future research directions, the development of a comprehensive scale for measuring the impact of the pandemic on tourist behavior is needed and also more studies should be carried out in the post pandemic period to identify the travel intentions and the effects of the pandemic on tourist behavior at international level. As the present study findings indicate that Romanian young travelers were affected by the pandemics more than the foreign travelers, more research is needed to identify what were the specific factors (including cultural ones) that influenced their travel behavior and in what conditions they would resume travelling post-pandemic.

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EXPLORING MENTAL HEALTH IN ROMANIA FROM ECONOMIC POINT OF VIEW AND EMPLOYEES' PERCEPTION

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FLORINA-GABRIELA MITU[1], MARIUS BOTA[2]

ABSTRACT. Mental well-being is and will continue to be part of what defines an individual's health today. Even if it is a subject with great international notoriety, many cultures and nations do not have concrete definitions or even words to describe mental health and its diseases. Moreover, this is present today most often in the workplace. Examples like late hours worked overtime, mixing family time with work time, neglecting sleep and proper nutrition are related in the action of reaching a target or a deadline. All these few examples are just the premature actions of those who predict and describe the beginnings of mental disorders, such as depression or advanced insomnia. The purpose of this paper was to be observed the actions and costs registered at the European level to combat these mental health conditions, as well as the influence of the pandemic both during and its perception after the lifting of restrictions in Romania at the workplace. Also, to find out the influence of this mental health condition on the economic efficiency and the situations recorded on the labor force as well as the perception of people who have a job in a field or company with a very low notoriety on the labor market. It was wanted to know and highlight the presence of stress that leads to the instability of mental health in Romania both

[1] Master's in International Business Administration, Faculty of Business, Babes-Bolyai University Cluj-Napoca, Romania. Email: mituflorina08@gmail.com
[2] Assoc. Prof., Ph.D., Department of Hospitality Services, Faculty of Business, Babes-Bolyai University Cluj-Napoca, Romania. Email: marius.bota@ubbcluj.ro.

among adults and in the case of young adults. The existence of promotion campaigns in Romania at a workplace and the relationship with the superiors in the event of the occurrence of situations that trigger these states of restlessness and anxiety, as well as the identification of ways to combat problems at the local and national level, are also present as subject of interest in this paper.

Keywords: mental health, workplace, WHO, OECD, Covid-19

JEL classification: I18, I38, J81

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Introduction and review of literature

Mental health is a current topic that causes both instability and a drastic decrease in the productivity of the population in topics such as quality and efficiency at work. It is present also in academic and educational performance in general as well as on a personal level when it comes to arranging one's own household and ensuring family safety. Moreover, this evidence has become more and more prominent, starting with the year 2020 when the global and national economy experienced a considerable collapse. Thus, together with the pandemic phenomenon known as COVID-19, in addition to the tragic events of death and illness, it also determined an acute struggle with challenges related to psychosocial effects, in the short and long term, on the physical and mental health of people able to work (Damian, 2020).

In the same way that the World Health Organization raised this issue of strengthening psychosocial improvements, as is the current subject of mental health, the large institutions and companies began to prepare and implement actions, which have in mind the detection and prevention of these psychological disorders. In addition to the decrease

in morale and efficiency at the workplace, countless companies have also noticed the impact of the economic element, which has provided enormous costs that link the actions to compensate for the negative effects created by the pandemic. That's why many economic leaders and specialists in the field have started promoting and implementing certain counseling programs and therapy sessions to reeducate the staff and direct beneficiaries of the businesses in terms of mental health and the code of good practices related to it.

Mental health, as considered by the WHO, "*represent a state of well-being in which the individual realizes his own abilities, can cope with the normal stress of life, can work productively and fruitfully and is able to contribute to his community*" (WHO, 2001). Mental disorder is the cause of instability and loss of this mental health. Some mental disorders are recognized as (WHO, 2017):

1. Depression
2. Burnout
3. Anxiety
4. Bipolar disorder
5. Schizophrenia

These mental disorders can be of short or long duration. In the same context, the influence underlying these disorders is described by numerous factors, whether they have their roots in the genetic component, or in the series of experiences encountered during childhood, such as trauma (Wynne et al, 2014). Moreover, there are cases in which certain chronic medical conditions leave their mark on the development and growth of an individual. In the same way that physical abuse, alcohol, or harmful substances affects human progress, so does the social context of any kind or factors such as poverty or debt and leave its imprint on a young adult (OECD, 2018).

At the 74th edition of the World Health Assembly in 2021, the action plan on mental health until the year 2030 was approved. Also, regarding the emergence and recognition of those needs in terms of the impact of COVID-19 (evidence of at WHO) on mental health and well-being, EFAMH responds with the following three initiatives to be followed (WHO, 2022):

• creation of a data platform dedicated to mental health where the constant performance of mental health systems and the mental health status of the population are targeted.

• insisting on and promoting the development of resilience for the mental health and well-being of children and young people

• providing support to elderly people with mental health problems.

The political decision-makers in the field of health and economy still have gaps and uncertainties in their understanding of the importance of mental health. Furthermore, resilience, but also the human, social and economic component, leads to missed opportunities to invest in policies and interventions that can truly protect mental health and develop this need for prevention within and beyond the health sector (WHO, 2022).

Despite renewed international attention to mental health and the development of evidence-based tools and innovations for better treatments and services, there remains a set of fundamental challenges that predate the COVID-19 pandemic and affect countries in the region (WHO, 2022):

a) This includes deep-rooted stigma and discrimination against people with mental health conditions and psychosocial disabilities, leading to a violation of human rights, low levels of mental health literacy among the general population;

b) Insufficient investment and access to quality services for people across the lifespan, leading to unmet needs and financial hardship;

c) Provision of fragmented or uncoordinated services; inadequate governance and IT systems;

d) A continued reliance on psychiatric hospitals or social welfare institutions as the primary place of provision of mental health care.

Material and methods

The main purpose of this work was to explore the phenomenon of mental health both at the European and national level, as well as the degree of impact and awareness of it by the citizens of the country after experiencing a crisis phenomenon such as the Pandemic. It was also desired to observe the actions and costs recorded at the European level to combat

these mental health conditions, as well as the influence of the pandemic both in time and its perception after the lifting of restrictions in Romania. To the same extent, it was desired to observe and find out the influence of this state of mental health on the economic efficiency and the situations recorded on the labor force as well as the statistical situations of the companies in a workplace.

As a secondary data collection method, an exploration and comparison of several specialized reports and articles that have mental health as their main subject was carried out. The data selected and focused on this article were collected over two months and involved the consultation of several platforms such as Google Scholar, Research Gate and various sites specialized in the subject of this work such as Science Direct, Ro Health Review, Europa.eu. The present sources are reliable, providing up-to-date information in the perspective component of the studied field.

Primary and secondary data were identified, collected, analyzed, and interpreted. To collect primary data, qualitative research was carried out by conducting an in-depth interview with five interviewees. The main criterion for choosing the five subjects interviewed was belonging to a workplace with a lower notoriety on the labor market and depending on the diversity of the main field of activity owned by that workplace. Two age categories were interviewed, namely adults, in the number of two people and young adults, who were in the number of three people. The interviewed subjects are aged between 22 and 54 years. They are of Romanian nationality, coming from both rural and urban areas, and the geographical area was mainly represented by Cluj County, followed by Constanța and Tulcea counties. Also, the participants in the interview work in the following fields: financial banking, land improvements, volunteering in the medical field, sales, and hospitality.

The period in which the interview participants were contacted and selected was two weeks, and the discussions with them were carried out both by phone and face-to-face. Regarding the discussion with them, it lasted between 30 minutes and a maximum of an hour, and the number of participating women exceeded the number of men, this being one respondent compared to the number of women, which was four. Also, the questions present in the interview guide were in number of nine, open

questions which led to the determination of the participants to answer justified and without using monosyllabic answers. The questions used in the interview guide led to finding out the following information considering:

- how familiar are people with the phenomenon related to mental health in Romania and in general;
- where do they think the phenomenon occurs most often and in which age category;
- if discussions related to stress and combating mental health problems are promoted at their workplace and what is their relationship with superiors related to this subject or if there is one,

Also, what solutions or remedies do the respondents see to solve these problems that arise among people suffering from these disorders and mental health conditions.

At the beginning of the in-depth interview, it was mentioned that confidentiality would be respected and how these responses would be further used in the research, as well as the fact that the discussions would be recorded.

Results and discussions

As the 2020 report provided by the World Health Organization claims, the COVID-19 pandemic has stalled almost all mental health services in 93% of countries around the world. This survey conducted in 130 countries, from July to August of 2020, shows how the impact of the pandemic has a devastating aspect on mental health services, emphasizing at the same time the boundless need for these services and funding actions for those. This request regarding increased investments in the improvement of cases caused by mental health conditions, following COVID-19, was inaugurated during the biggest event organized by the WHO for mental health, on October 10 of the same year. As the specialists in the field say, once with the isolation and the transition of most areas of activity to the online work environment, the loss of income, the suffering caused by the acute number of deaths in the family, the fear of regarding the instability

and ensuring a prosperous future resulting from the job losses have caused fears, fears that have led to a much greater and more urgent demand for mental health services and conditions.

Moreover, following the report provided by the states participating in the study, it was found that most countries contributed less than 2% of their national health budgets to mental health before the outbreak of the pandemic. In 2018, the most alarm signals were estimated at the level of the European Union regarding the contributions and expenses for mental health, hence the costs in the amount of over 600 billion euros. (C.G. Damian, 2020) Of this money spent, which is the equivalent of 4% of GDP, 190 billion euros were distributed to health care, 170 billion euros to social programs and 240 billion euros were represented by indirect expenses for remedying the loss on the labor market caused by events that have in mind the mental health of employees (OECD/EU, 2018). More information regarding the performance of employees at the European level can be observed in table 1, as the OECD specialists tell us in the publication made in 2018.

Table 1. Summary of direct and indirect costs regarding mental health problems in the EU in 2015

The categories from which the costs resulted	Specific source of costs	Quantitative estimation of costs	Observations
Health	Direct health cost for services and goods for the prevention, diagnosis and treatment of mental health disorders: • Home visits • Hospitalization costs • Pharmaceutical costs	• 194 billion of euros for direct health	Countries such as Germany and the United Kingdom presented in the estimation 1.4% of GDP, and Luxembourg and Ireland had 0.8% and 0.9% of GDP, respectively. Lithuania, Bulgaria, Romania and the Slovak Republic have estimated taxes of less than 1% of GDP.

The categories from which the costs resulted	Specific source of costs	Quantitative estimation of costs	Observations
Social security spending	1. Paid medical leave 2. Disability benefits 3. Benefits regarding the prediction of unemployment	• 20% of paid sick leave benefits (28 billion of euros) • 37% of disability benefits related to mental health problems (112 billion of euros) • 15% of unemployment insurance benefits (29 billion of euros)	These estimated costs do not include expenses such as social programs, social assistance benefits or benefits for single parents.
Labour market (indirect costs)	1. Loss of income in terms of death caused by mental illness among the working population 2. Losses within the low employability rate among workers with mental health problems 3. Losses resulting from absenteeism among workers who have mental health problems 4. Losses among people who have mental health problems and who have very low productivity	• 240 billion euros, equivalent to 1.6% of GDP • 22 billion euros in losses resulting from the assumption regarding deaths in the workforce with mental health problems (people aged between 25 and 64). Assuming that the people who died prematurely would have worked until the age of 65 or more, this loss also results in a potential productivity of 640,300 years of life • Losses in the amount of 176 billion euros regarding the low employability rate of people with depression. (only half of the EU population reported population with depression problems among the workforce aged between 25 and 64)	The assumption regarding the productivity of workers with mental health conditions is made by analyzing to the same extent absenteeism as well as presence at the workplace in the countries studied by Eurostat Database. Workers with mental illnesses seem to be 6% less productive than those without, and this low productivity is also the result of low wages.

Source: Authors' work adapted by OECD/EU (2018), Health briefly: Europe 2018: State of Health in the EU Cycle

Also in the same year, as the specialized website Ro Health Review says, as well as based on the estimates made by Health Metrics and Evaluation from 2016, Romania gives one of the lowest percentages of GDP for the treatment of these diseases of mental origin. As can be seen in Figure 1, below, Romania ranks last in terms of funding for the treatment of mental diseases, namely 2.1% of GDP (Ro Health Review, 2018).

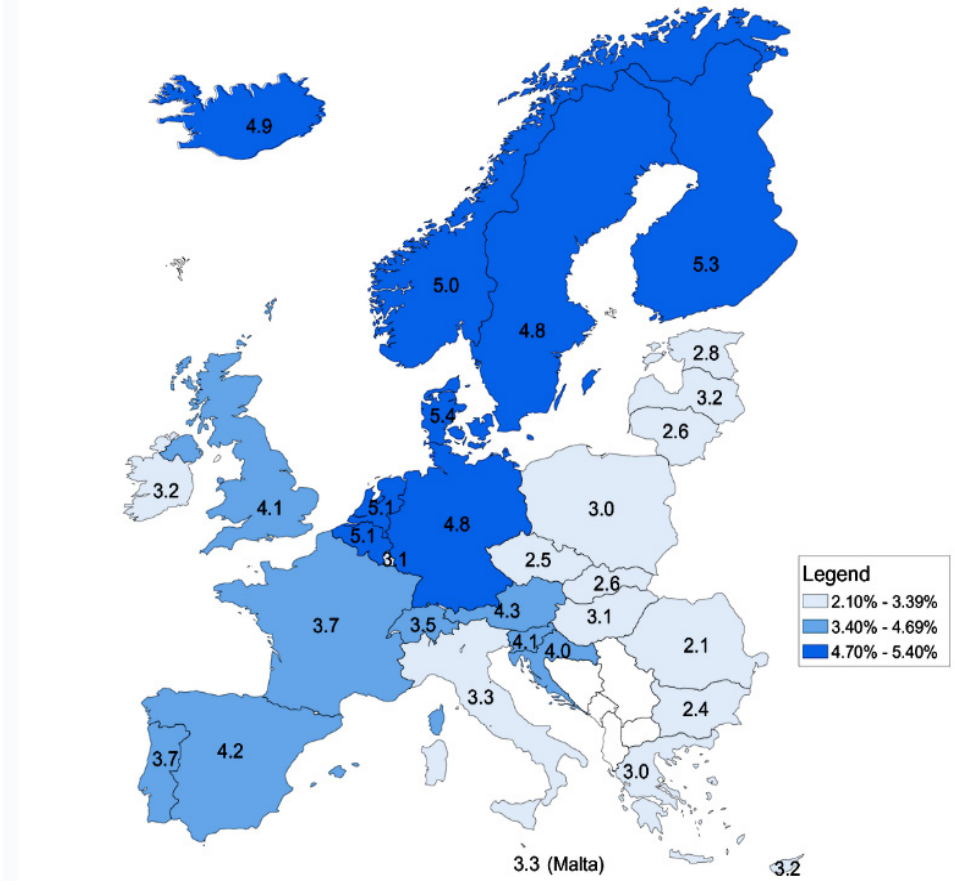

Figure 1. Estimate of direct and indirect costs of mental illness at the EU level as a percentage of GDP in 2015

Source: OECD/EU (2018), Health immediately: Europe 2018: State of Health in the EU Cycle

At the same time, some of the countries present in Figure 1 that offer one of the highest percentages are, for example, Norway and Finland, which allocate 5% and 5.3% of GDP, in response to the improvement of treatments to this phenomenon. A main reason could be the fact that the degree of diagnosis of mental health diseases is higher in this country in recent years, and the population has started to raise more and more this problem as well as the desire to solve it as soon as possible. Also, looking at Figure 2 below, Romania is last in the ranking in terms of registering people with mental health problems in the EU, showing a percentage of 14.3% (Ro Health Review, 2018).

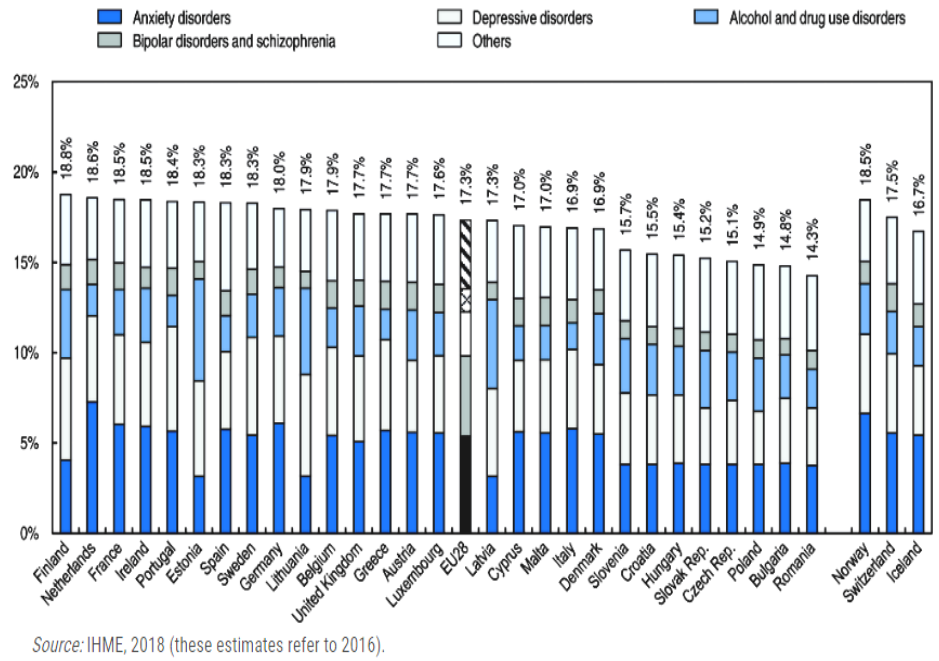

Figure 2. Countries with mental illnesses in the EU

Source: OECD/EU (2018), Health at a Glance: Europe 2018: State of Health in the EU Cycle

Although maybe it seems like a small percentage, taken by comparison, but this is not a concrete one, because in Romania there is still this wrong conception of fear and ignorance of everything related to accepting

psychological help. At the same time, in addition to this trend of ignorance regarding treatments and the request for assistance in the case of people with mental health problems and symptoms, another big problem is the state together with employers who do not properly provide these benefits such as medical leaves and financial aid, as well as free access to educational programs, treatment and counseling regarding mental health both personally and at the workplace. On the other hand, it seems that this difference between the more developed countries, such as those in the north and the south-east of Europe, boils down to the simple fact that people report their health-related problems in a much larger number and more frequently mentally, because they have much more access to medical services for the treatment of mental illnesses.

The fear of numerous companies and entrepreneurs, especially in the last years since the outbreak of the pandemic, regarding employability and the decrease in the productivity rate continues to grow even now after the restrictions have been lifted. The fact that people suffer from depression and anxiety causes enormous costs at the level of institutions and the country from an economic point of view. People lack motivation, they no longer want to return to work in physical form (Bergefurt et al, 2022). The world took on a sense of constraint and resulted in a state of convenience and lack of prosperity, regarding the existence of the possibility of exclusively physical work, without which 2 years ago it was impossible to practice. Even education is currently struggling with a deficit in terms of motivating students and academic staff to return didactic activities to a side of normality. The isolation and constraint of people to be on their own in such severe and crisis situations led to an involution in terms of social inclusion, the security of belonging to a social group and the desire for development in this sense.

As also given to us by IHME, in the study done in 2016, over 25 million people suffer from anxiety, 21 million have depression, over 11 million are drug and alcohol dependent and 5 million people suffer from bipolar disorders. The consumption of alcohol, drugs, suffering related to mental disorders, insomnia and anxiety have always existed and will continue to exist even today, but the presence of this pandemic has led to more complications from a neurological point of view and of course, mentally.

A simple example is described by states of acute panic, agitation, and stroke, which without treatment and awareness can lead to death (Ro Health Review, 2018).

At the same time, according to the publication made by the OECD/EU in 2018, it seems that among the most present causes in the development of these chronic diseases are the level of education and the difference in age and sex. Women are much more affected by anxiety, bipolar disorders, and depression, while men have problems with excessive consumption of alcohol and drugs. More than 11.4% of women, respectively 7.1% of men suffer from depression, according to the estimates presented by the OECD in 2018. Depression is found most often in people over 50 and 75 years old, but it is found in a very alarming number among adolescents, where up to 15% of children between the ages of 6 and 11 from countries such as Romania, Bulgaria, Germany suffer from a mental or behavioral disorder (Ro Health Review, 2018).

Romania is currently, as was estimated in 2018, one of the countries with the most working hours per week. This, as well as putting a greater preference on finding a job to the detriment of mental health, can also be seen in the current trend in which young people choose to interrupt their studies to find and secure a job to cover certain losses suffered during the pandemic. That's why the neglect of their mental health has led to increases in mental disorders quite impregnating, and the alarming factor is that they are still unreported. At the Romanian level, it can also be seen in the figures 3 and 4 below how mental disorders experienced an increase in 2019 and 2020 compared to 2018.

The number of cases of mental illness in Romania in the period 2011-2020 in 2020 was lower by only a few thousand compared to 2019, when the Covid-19 pandemic began, being equal to 231,288 in 2020 and 234,800 in 2029 (INSP-CNEPSS, 2022). As the National Institute of Public Health says in the 2022 report on mental health, mental disorders in Romania in 2020 were 1200.8% (reported per 100,000 inhabitants) in a slight decrease compared to 2019. In the same context, the number of hospital discharges for those diagnosed with mental disorders was lower in 2020 compared to 2019, in a percentage of 6.9% compared to 12 .4% in 2019.

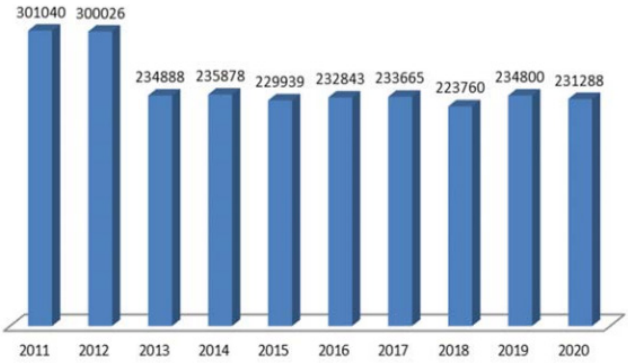

Figure 3. The distribution of the number of new cases of mental disorders in Romania, in the period 2011-2020

Source: INSP, 2022; https://insp.gov.ro/download/cnepss/ stare-de-sanatate/boli_netransmisibile/ sanatate_mintala/ Analiza-situatie-Sanatate-Mintala-2022-decembrie14.pdf

At the same time, looking at figure 4, counties such as Arges and Braila, has the prevalence percentage of people with mental disorders higher compared to the rest of the counties with values such as 6233.45%000 (reported per 100,000 inhabitants) and respectively 4732.03%000 (reported per 100,000 inhabitants) in 2020. Also, regarding new cases of disorders mental disorders (reported per 100,000 inhabitants), in Romania, 22,100%000 cases were registered in 2020 for people over 60 years old and 16,596%000 for those over 65 years old, compared to 2019 when these numbers were higher than 22,515%000 for those aged 60+ and 16,879 for those aged 65+. If the gender classifications are considered, according to the same 2022 report released by the National Institute of Public Health, it seems that the rate of women (308.23%000) is higher than that of men (157.45%000) in terms of incidence to depressive episodes.

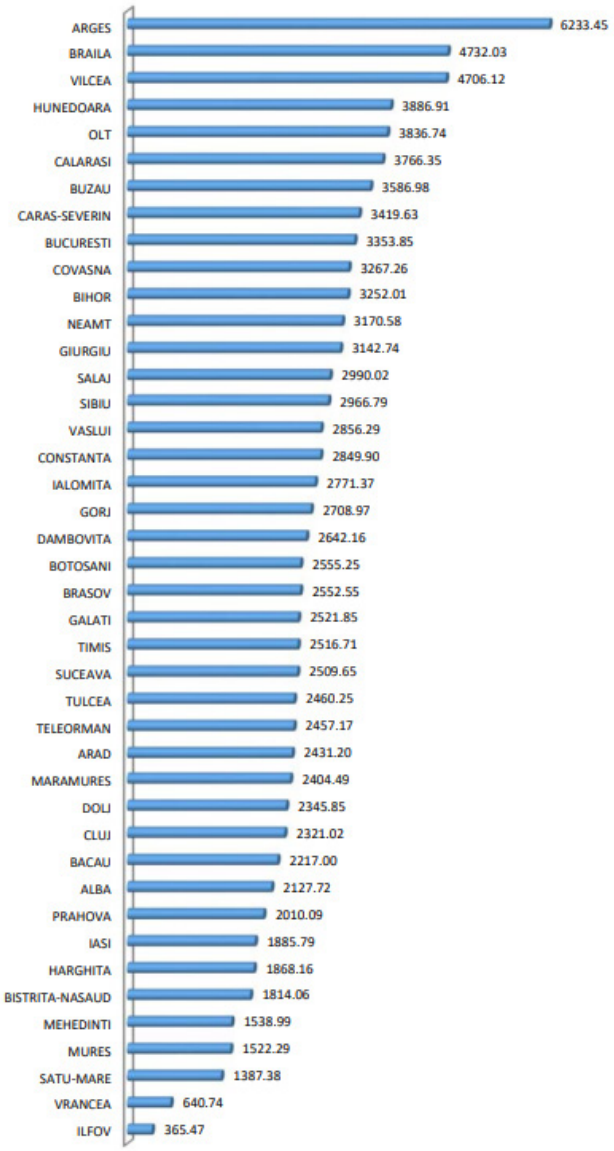

Figure 4. Prevalence of mental and behavioral disorders (ICD-10 code F00-F99) (rate %000 loc.), by county, in 2020

Source: INSP, 2022; https://insp.gov.ro/download/cnepss/ stare-de-sanatate/boli_netransmisibile/ sanatate_mintala/ Analiza-situatie-Sanatate-Mintala-2022-decembrie14.pdf

Among the elderly in 2020, the incident rates of the depressive episode were the highest in people aged between 75 and 79, both among women and men, approximately 596.56%000 for women and 426.20%000 for men (reported per 100,000 inhabitants). In the case of the average resistance to this incidence rate of the depressive episode, according to INSP (2022), in the urban environment the rate was higher, around 241.57%000 compared to 226.09%000 in the rural environment (reported per 100,000 inhabitants).

Following the implementation and the start of the discussions from the interviews with the adults and young adults present on the labor market in Romania now, a general conclusion was reached that the stress is present to a very large extent, in their daily activities and these are mainly related to the money factor and the need for monthly income. Because in Romania today salaries are very low compared to the costs of living, stress is constantly present and leads to these episodes of restlessness and anxiety, especially at work.

In recent years, many problems have arisen regarding occupational stress, which is also closely related to the topic related to the problems that arise related to mental health. Occupational stress, as the specialists in the field say, is a large and expensive complex phenomenon in the workplace all over the world. Continuing this idea, the specialists from the International Labor Organization (ILO) said that the workplace environment was and continues to be severely affected by globalization and the global financial crisis, especially during and after the pandemic period. These have led to increased demand, as well as stress and related mental health problems (Lee, 2016).

Moreover, the adults interviewed answered that they are not immediately aware or that these stressful situations are constantly present in their individual daily activities and at work. One of these people working in the financial-banking field wanted to mention that the stress that led to nervous breakdowns and restlessness at work was during the pandemic, when working with people, submitting constant and periodic reports on time led to the elimination the breaks from the fear of the program, not eating on time and lack of sleep. She also wanted to mention that she considers panic attacks much more dangerous than depression itself, because they are much more unpredictable and difficult to manage or be aware of. The presence of technology was also discussed, which also causes a stress factor for employees, as is the case with small and

medium-sized companies. One respondent's remark was: "*In Romania, one employee has the duties of several employees, and thanks to the use of technology, 5-7 employees are eliminated and there remains one who does this work at one place, and that's why this stress is much greater.*"

Another participant, an adult who works in the field of land improvements, brought to this interview the problem of death in the family, which most of the time leads to these mental illnesses and states of mental restlessness.

At the same time, when the respondents were asked about the notoriety of the phenomenon in Romania and at the workplace, they mentioned the fact that it is very present in the country, but it is not known or aware in a very large number by the inhabitants. They generally defined mental health as the ability to face a challenge even in unforeseen situations.

In the same context, it was mentioned that this phenomenon is more common among young adults and even among teenagers and then among those close to retirement who reach a very big impasse and the stress factor and concluded with depression. They are being ignored by employers because they no longer have the power to work compared to a young person.

During the interview with the participants, the existence of campaigns to promote and combat these mental health problems at the workplace, as well as open communication with superiors regarding them, was also discussed. Most of them said that there are no special campaigns to promote the well-being of mental health at their workplace. In another vein, one person wanted to mention that "*the concern for health in general and mental health is communicated when labor protection is done once every 3 months, and when tests are done where the well-being is also evaluated of the employee's mental health*". They also mentioned that the relationship in general with the superiors is a good one, there is understanding, and ways of remediation and resolution are sought when he has episodes of stress at work.

It was also brought into consideration by a young adult respondent who works in the hospitality field that the superiors do not know how to manage employees very well and to offer them the necessary conditions and benefits to keep them at work for longer. That's why many employees end up leaving the workplace and end up encountering a lot of problems and mental restlessness due to the lack of a stable income.

Conclusions and recommendations

One of the main conclusions of this study is described by the effects and implications of the pandemic that will remain present for a long time, both socially and psychologically. Social factors and results such as social exclusion or absenteeism from work, as well as its loss, continue to shape the mental health of the population both in Romania and worldwide, as evidenced by the statistical results of recent years.

Therefore, psychological support is an acute need today, both within educational institutions and in the social one for the elderly groups and those still present on the labor market (Moreno et al., 2020). At the same time, technology is and will continue to be a double-edged blade, because this is the cause and one of the solutions that have in mind people's mental health. On the one hand, the new and popular evolution of the online environment led to saving the economy to a small extent in the context of the pandemic.

People have learned to appreciate technology and to adapt their way of working and living by joining this online environment either through actions to digitize the sales and purchase process or through the creation and provision of services exclusively online, such as promotion in social media or even offering trainings and consultations at a managerial but also a psychological level, as is the Better Help platform or, in the case of Romania, About HUB, and many other platforms. On the other hand, technology has also created a great source of depression and anxiety, because the way of working and existing between four walls as well as the wrong concept of escape in the online environment has led to these states that affect the mental health of an individual. In addition to these caused states, the access to erroneous and false news and posts both in terms of the economic, educational, political and health fields have led to a decrease in motivation and living prosperity as well as to a wrong education of the population that most of the time it presents political substrates in origin. The burden brought by mental illnesses, as well as the impact of family losses due to suicides or deaths aggravated or accelerated by these mental illnesses, have contributed to the presence of high costs in Europe. Along the same lines and because of the pandemic and the responses to it, as well as the increase in demand and need for mental health assistance and care, there is an increased awareness among

European member states of the need for significant investments and innovations, the provision and strengthening dynamic policies and services for the near future. Following the countless conventions and agreements at the European level, the need for the rapid implementation and monitoring of the actions presented in the reports regarding the assistance of groups showing symptoms of mental disorders was found.

Both member states and at the microeconomic level are requested to promote the provision and protection of the mental health of the population. Moreover, educational institutions should, first, offer even more support to this crisis in terms of mental health among young people.

Considering the answers from the in-depth interview as well as the statistical data obtained from the secondary research, one of the main recommendations has in mind the granting of more funds and benefits from the state to treat and combat the problems arising from this phenomenon. We also want a remodeling or change of the medical mentality in our country regarding the importance of mental health. At the same time, psychotherapy offices should be included in compulsory medicine, as is the case with medical tests, so that more people can have access and that it no longer presents such a high cost for an ordinary person. Not to mention that in the countryside they are non-existent. And thus, this taboo conception can be eliminated, in which a person without a very advanced education categorizes this condition as non-existent and embarrassing.

Another recommendation would be to introduce and maintain a better mediatization and explanation of mental health and not only in the online environment but also in educational institutions.

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THE STUDENTS' PERCEPTION OF THE ONLINE TEACHING-LEARNING DURING COVID-19 PANDEMIC

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ELISABETA BUTOI[1], OANA ADRIANA GICĂ[2], ZSOLT BESSEL[3]

ABSTRACT. The Covid-19 outbreak forced educational institutions to shift from face-to-face to online teaching-learning in a very short time. The students and teachers had to learn by doing and to adapt quickly. Therefore, the focus of this study was to examine the main determinants of students' perceived learning experience and satisfaction with the online classes. The data was gathered from bachelors' students. The quantitative approach was implemented to analyse the subject. The findings show positive influence of faculty support, course design and students' involvement on the students' perceived learning experience through the e-learning platform and online classes. The student satisfaction with online teaching-learning is predicted by the perceived learning experience through the e-learning platform and online classes. The findings also emphasize the role of information and communication technologies (ICTs), as in the digital era the use of e-learning platforms is essential for the educational institutions.

Keywords: online teaching-learning, student's satisfaction, learning experience, faculty support, course design, students' implication, e-learning platform, Covid-19 pandemic

JEL Classification: M10, M12, M15, M54

[1] Assist. Prof. dr., Faculty of Business, Babes-Bolyai University, Cluj-Napoca, Romania. Email: elisabeta.butoi@ubbcluj.ro
[2] Assoc. Prof. dr., Faculty of Business, Babes-Bolyai University, Cluj-Napoca, Romania. Email: oana.gica@ubbcluj.ro
[3] Bachelor student, Faculty of Business, Babes-Bolyai University, Cluj-Napoca, Romania. Email: zsolt.bessel@stud.ubbcluj.ro.

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Introduction

The consequences of Covid-19 pandemic on the learning-teaching systems are a very actual topic, as these influenced everyone implicated in the face-to-face education system. The motivation for this research and topic is to understand how it has been for students to learn and adapt to a new system after spending their whole educational life in a face-to-face learning system. One of the most important changes that happened was the impact of this pandemic on innovation of online platforms and consequently on the digitalisation of the education systems. As humans have an outstanding ability to adapt, this was exactly what was expected of the learning platforms providers and teaching staff when this pandemic hit. The online platforms improved to answer to the needs of educational systems, while the educational institutions converted to using e-learning platforms to achieve their goals in the time of crisis and as seen today to adopting ICTs.

Facing the limited mobility during the Covid19 pandemic, educational organizations had to shift to online teaching and learning, conquering challenges like technical infrastructure, lack of resources and the mandatory quickly adaptation to the digital transformation (Mishra, Gupta, & Shree, 2020). In Romania, starting with March 2020 universities had been shut down. Thus, these institutions had to find new ways to complete their tasks, deciding how to deal with the situation. Suddenly, students had to participate to online classes and professors had to learn by doing how to teach online. In the transition to the online environment, the universities had to rethink how to deliver courses and their content (Paul & Jefferson, 2019). Faculties had to decide on the most suitable e-learning platform to use for their activities. In this process teachers and students learned to adapt and to use new technologies.

The education institutions were left to decide for themselves how they were going to deal with this crisis situation, and this is the point where innovation came into the picture. Because there was no such thing

as a predefined protocol to follow in a case of a global pandemic, everyone had to figure out things on their own. It is worth mentioning that in the case of the Faculty of Business everyone did their job as good as they possibly could in such a short amount of time. As a result of everyone's efforts, especially professors, students were soon able to join the first online classes. At first, different platforms were tested, such as Skype, Zoom, Google Meet or even Discord. There was not a single platform with applications suitable for all teaching and learning activities, therefore a combination of platforms was used. This of course led to the dislike of this situation, because honestly it was difficult for students to change platforms from one course to another. In May 2020 there were decided to start using Microsoft Teams platform which is still in use today. There were challenges for both students and teachers. Students had to learn how to use different platforms and it was also challenging for them to maintain their focus and to sit in front of a computer for many hours. Teachers had to get acquainted, in a very short period of time, with different platforms that would allow them to deliver the courses and the seminars and of course they had to adapt their teaching methods to online learning.

The aim of this article is to present a holistic image of online teaching-learning activities in time of lockdown period based on students' perception, who experienced this during Covid-19 pandemic. Therefore, the study examines the main determinants of students' perceived learning experience and satisfaction with the online classes.

The remainder of the paper is structured as follows: next section is dedicated to a brief literature review that served as a foundation for the formulation of the research hypotheses, followed by the presentation of the research methodology and the results. The final section of the paper presents the main conclusions, the limitation of the study and some future research directions.

Literature review

In order to gain an insight, the relevant literature was investigated to understand the students experience with the online teaching-learning during lockdown.

The online learning refers to the learning taking place using custom design technology enhancing access to information (Conrad, 2002), connectivity, mobility, and interactivity (Ally, 2004). It also offers access to distance learning (Alawamleh, Al-Twait, & Al-Saht, 2020). As the use of ICTs in teaching and learning increases, the focus of higher education is gradually shifting from provider to learner when it comes to enhancing the online learning of individual students (Tsang, So, Chong, Lam, & Chu, 2021).

The online teaching and learning environments involve ICTs. E-learning was widely used especially in the Covid-19 pandemic period. Some benefits of online learning are engagement with course materials, less withdrawal (Nguyen, 2015), availability to larger number of students, being easily accessible and convenient (Alawamleh, Al-Twait, & Al-Saht, 2020). To comprehend the students' online teaching-learning experience and perspective is important to investigate the main determinants of students' satisfaction. The following described variables describe students' perceived learning experience through e-learning platform and online classes that further predict student satisfaction.

Faculty support

The support received by students from the faculty was vital in the emergency situation of unexpectedly and rapidly change of the teaching-learning process from face-to-face to online classes (Tsang, So, Chong, Lam, & Chu, 2021). Providing the access to support available for students was expected and planning ahead was required to overcome challenges easier. It was necessary in terms of technical support (Eom, Ashill, & Arbaugh, 2012; Duque, 2013) and for peer and institutional support (Lee, Srinivasan, Trail, Lewis, & Lopez, 2011). The study of Eom & Ashill (2016) on the role of information technology in e-learning systems, identified that system use, and user satisfaction are influenced by system quality and information quality. In the digital era, learners want to have access to information from anywhere at any time through high quality programs (Paul & Jefferson, 2019). All managerial and technical issues with online classes are problems to be solved in time by the faculty (Sekret, Durmus, Gurer, & Curaoglu, 2019). Thus, the following hypotheses were issued:

H1.a. The faculty ensured support influences the student perceived experience through the teaching-learning platform.

H1.b. The faculty ensured support influences the student perceived experience through the online classes.

Course design

A quality online learning environment is offering students access to well-structured course materials, learning activities and interactions (Tsang, So, Chong, Lam, & Chu, 2021). User-centred design strategies are recommended for online courses. The course design should support a collaborative, engaging and interactive virtual learning environment considering the human computer interaction principles and approaches (Bayyat, Abu Muaili, & Aldabbas, 2021). Also, the students' needs, preferences and skills must be considered (Iniesto, 2017). A very clear, proper, and adapted planning of the courses for online interaction with students is part of teachers' preparation of each lecture (Mishra, Gupta, & Shree, 2020). The instructors have to facilitate students' active participation during the online lectures (Sekret, Durmus, Gurer, & Curaoglu, 2019).

Kampov-Polevoi (2011) presents a framework for the analysis of online course design constructed on the influencing factors. Furthermore, Norman (2019) proposes a framework for developing online courses based on the learning theories and identified instructional design models. As teachers have to motivate the learners, the course design should be created using a motivational model (Norman, 2019). Student's perceived learning outcome is significantly influenced by the clarity of course design and the active discussions (Swan, 2001). Eom and Ashill (2016) suggests shifting the focus from e-learning system factors to design and human factors in online learning environment. In these regards the following statements can be expected. Consequently, two hypotheses were assumed:

H2.a. The course design influences the student learning experience through the teaching-learning platform.

H2.b. The course design influences the student learning experience through the online classes.

Student implication

The actions of students are based on their motivation to learn and participate (Harmon-Jones, Harmon-Jones, & Price, 2013; Lee, Srinivasan, Trail, Lewis, & Lopez, 2011). Some studies found the student-teacher interaction being significant for student perceived learning and satisfaction (Baber, 2020; Swan, 2001). Furthermore, the student's involvement (Devisakti & Ramayah, 2019), having a proactive behaviour, and active learning are positively related to learning outcomes (Tsang, So, Chong, Lam, & Chu, 2021). Self-management of learning is one key element in learning success, as students with high level of self-regulated learning skills have better results and attain deeper learning outcomes (Bayyat, Abu Muaili, & Aldabbas, 2021). The student learning initiative implies an active and self-starting approach to overcome challenges and to achieve goals, thus leading to higher learning performance (Huang & Yu, 2019). These lead to the statement of the following hypotheses. Thus, the following assumptions can be concluded:

H3.a. Student implication affects the perceived learning experience through the e-learning platform.

H3.b. Student implication affects the perceived learning experience through the online classes.

Student perceived learning experience and satisfaction

The student interaction with the teachers and with the course content is significantly influencing the perceived learning outcomes (Marks, Sibley, & Arbaugh, 2005). The information received by the student influences the level of confident acceptance of information, in terms of usefulness, necessity and satisfaction. The student response to the use of information system is further defining the student satisfaction and learning outcomes (Eom & Ashill, 2016). On the base of easy access to information and received technical support, the teaching-learning process attempts to reach its goals and students recognize the results of their effort (Tsang, So, Chong, Lam, & Chu, 2021).

Satisfaction with course activities has been considered a dependent variable in distance learning studies. It's difficult to differentiate the learning outcomes from satisfaction. Since studies identified convenience

and flexibility features of online learning (Huang & Yu, 2019), students' satisfaction is related not only to students perceived learning outcomes (Marks, Sibley, & Arbaugh, 2005).

Several studies identified the positive correlation between learning outcomes perceived by the students and their satisfaction with online learning (Baber, 2020; Duque, 2013; Ikhsan, Saraswati, Muchardie, & Susilo, 2019; Marks, Sibley, & Arbaugh, 2005; Swan, 2001; Tsang, So, Chong, Lam, & Chu, 2021).

Studies show that face-to-face teaching is more dynamic than online teaching and it also is well-established (Kemp & Grieve, 2014; Paul & Jefferson, 2019). However, the online teaching-learning process will advance, and students will adapt to online learning. The appropriate support is mandatory in terms of guidelines and counselling while challenging students to engage in online teaching and learning. The providing of immediate support and communication between teachers and students impacts the students' learning outcomes and satisfaction (Lee, Srinivasan, Trail, Lewis, & Lopez, 2011).

The quality of the information system used affects the behaviour of recipient, in e-learning context interpreted as learning outcomes, this including perceived satisfaction with online course and delivery medium (Eom, Ashill, & Arbaugh, 2012). The student's perception of support, the appropriate structure of course materials, and effective communication are positively correlated to perceived learning experience (Lee, Srinivasan, Trail, Lewis, & Lopez, 2011). Mullen & Tallent-Runnels (2006) mentioned perception of learning in class as motivation, self-regulation, and students' satisfaction.

The learning outcomes and student satisfaction are widely considered indicators of the effectiveness of online education (Eom, Wen, & Ashill, 2006). Otherwise, teaching and learning being seen as a learning system, between the system use and the user satisfaction is a reciprocal correlation. Both, system use and user satisfaction predict the impact on the student, and this further is impacting the organisation (Eom, Ashill, & Arbaugh, 2012). The student learning outcomes were measured based on students achievements in some cases (Tsang, So, Chong, Lam, & Chu, 2021) while in other studies those were not considered (Lee, Srinivasan, Trail, Lewis, & Lopez, 2011; Mullen & Tallent-Runnels, 2006). Also, some studies included a

comparison between online and face-to-face learning results (Eom & Ashill, 2016). For this study, the comparison of results between online and face-to-face classes was not possible for most of the respondents due to the three academic years during the pandemic, so the study focused on the perceived learning experience through the e-learning platform and online classes. In this manner, the following statements were presumed:

H4a. The student perceived learning experience through the e-learning platform has a positive impact on students' satisfaction with online teaching-learning.

H4b. The student perceived learning experience through the online classes has a positive impact on students' satisfaction with online teaching-learning.

Research methodology

The research was carried out using quantitative methodology to investigate the students' perception of online teaching-learning during Covid-19 pandemic. The data was collected in May 2022 through the questionnaire research instrument. The inquiry form was distributed online to the undergraduate students of the Faculty of Business who were studying onsite before the pandemic outbreak. The questionnaire was developed both in English and Romanian, since these are the two languages in which courses are taught in this institution. It contained mainly structured questions and two open-ended questions.

The respondents experienced online teaching-learning during Covid-19 pandemic lockdown and their perception of online teaching-learning was analysed. The studied variables shown in Figure 1 were identified from previous research papers (Baber, 2020; Eom & Ashill, 2016; Tsang, So, Chong, Lam, & Chu, 2021) and the responses to the items of each variable were rated on a seven-point Likert scale (1=strongly disagree and 7-strongly agree) (Vagias, 2006). The variable faculty support was considered through the clear guideline provided, how well students were informed of the arrangements of the online classes, the effort paid to ensure the online classes run smoothly, and the offering of instant technical support when needed. The course design was constructed on how interesting and stimulating were the course materials, how the course was organised into

logical and understandable components, and overall, how many effective challenges the course offered. The student implication was measured in terms of spending more time to learn and study, to reflect over the lectures and asking the teacher more questions during the online classes than in face-to-face classes. These three constructs were validated by previous study of Tsang, So, Chong, Lam, & Chu (2021). The students' perceived learning experience was measured in terms of the pleasant experience with the e-learning platform and the online classes. Student satisfaction was determined by the overall sense of contentment with the online teaching-learning. The Figure 1 presents the research framework structure.

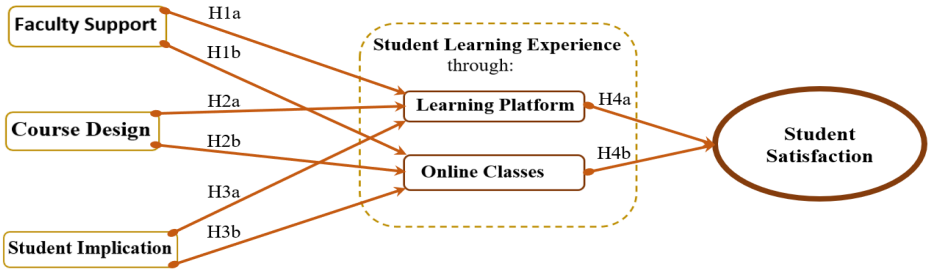

Figure 1. Research framework

Source: authors' compilation

Sample characteristics

The study sample included 80 students, 32 male respondents, 47 female respondents and 1 respondent preferred not to say. The respondents were 33.75% in the 1st bachelors' year, the same percent in the 2nd bachelors' year and 32.5% in the 3rd studying year. 70% of the students were studying Business Administration and 30% Business Administration in Hospitality Services.

Results

The free statistical software PSPP was used to carry out the data analysis. In Table 1 are visible the mean, standard deviation, Kurtosis and Skewness values of all items. The values of the Kurtosis and Skewness coefficients are between -2 and 2 (except for one item C.D.1) showing the analysed items follow a normal univariate distribution (George & Mallery, 2002).

Table 1. Descriptive statistics of the items

	F.S.1	F.S.2	F.S.3	F.S.4	C.D.1	C.D.2	C.D.3	S.I.1	S.I.2	S.I.3	S.L.E.eP	S.L.E.O.C	S.S
N Valid	80	80	80	80	80	80	80	80	80	80	80	80	80
Missing	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean	5.22	5.41	4.63	5.36	5.49	4.95	5.24	4.17	4.41	4.74	5.38	5.13	5.05
Std Dev	1.50	1.57	1.80	1.54	1.38	1.57	1.35	1.97	1.66	1.63	1.19	1.35	1.67
Kurtosis	-.52	-.60	-.87	-.40	2.54	.23	1.37	-1.22	-.36	.09	1.30	.40	-.04
Skewness	-.65	-.72	-.26	-.74	-1.39	-.73	-1.01	-.07	-.35	-.63	-.77	-.77	-.89
Minimum	2	2	1	1	1	1	1	1	1	1	1	1	1
Maximum	7	7	7	7	7	7	7	7	7	7	7	7	7

Source: authors' own determinations

The factor analysis was performed and the factor loading value of each item was above 0.7 (with one exception, for S.I.1 being 0.57>0.5 accepted value considering the sample size, Table 2) showing an adequate convergent validity (MacCallum, Widaman, Zhang, & Hong, 1999). For the three constructs, faculty support, course design and student implication variables, were computed the mean, the standard deviation, the composite reliability (CR), the Cronbach's alpha and the average variance extracted (AVE) values presented in Table 2. The values of AVE for each construct were higher than 0.5 indicating adequate convergent validity.

The reliability of data was assessed too. The composite reliability (CR) and Cronbach's alpha values of the predictor variables were higher than 0.70 (Table 2), indicating acceptable internal consistency (Doll, Raghunathan, Lim, & Gupta, 1995).

Table 2. Constructs measurements

Construct	Item	Factor Loading	Mean	Standard Deviation	CR	Cronbach's alpha	AVE
Faculty Support	F.S.1	0.79	5.16	1.39	0.887	0.89	0.662
	F.S.2	0.76					
	F.S.3	0.73					
	F.S.4	0.75					
Course Design	C.D.1	0.74	5.22	1.25	0.806	0.83	0.587
	C.D.2	0.79					
	C.D.3	0.81					
Student Implication	S.I.1	0.57	4.44	1.43	0.836	0.75	0.634
	S.I.2	0.81					
	S.I.3	0.77					

Source: authors' own determinations

The Table 3 presents the discriminant validity of the constructs. It suggests the extent each variable is distinct from the others. The Fornell-Larcker criterion was used, thus the square root of AVE value for each variable compared with the correlations it has with the other variables is the highest value. This indicates a satisfactory discrimination validity.

Table 3. Latent variable correlations

Constructs	Faculty Support	Course Design	Student Implication
Faculty Support	**0.814**		
Course Design	0.648	**0.766**	
Student Implication	0.392	0.357	**0.796**

Source: authors' own determinations

The causal relation analysis

The research framework was also evaluated examining the coefficient of determination (R^2) showing the percentage in which the variation of the independent variable explains the variation of the dependent variable. The R^2 values are shown in Table 4.

Table 4. Hypothesis results

Dependent variable	Factors	Beta	p-value	R2	Hypothesis Status
Student perceived learning experience through e-learning platform	***H1a*** Faculty support	.462	.000	0.533	***Supported***
	H2a Student implication	.152	.083		***Unsupported***
	H3a Course design	.251	.018		***Supported***
Student perceived learning experience through online classes	***H1b*** Faculty support	.418	.000	0.538	***Supported***
	H2b Student implication	.192	.028		***Supported***
	H3b Course design	.276	.009		***Supported***
Student satisfaction	***H4a*** Student perceived learning experience through e-learning platform	.473	.000	0.493	***Supported***
	H4b Student perceived learning experience through online classes	.276	.024		***Supported***

Source: authors' own determinations

The results of the first multiple linear regression analysis reveals that 53.3% of the variance in student perceived learning experience through e-learning platform is determined by the three factors taken into consideration. Among these, the most influent is faculty support (Beta=0.462), followed by course design (Beta=0.251). The least influential factor of student perceived learning experience through e-learning platform is student implication (Beta=0.152). From a statistical significance perspective, only two of the three investigated factors are significant: faculty support and course design ($p < 0.05$). Student implication, on the other hand, does not have a statistically significant influence on student perceived learning experience through e-learning platform ($p > 0.05$).

As seen in Table 4, 53.8% of the variance in student perceived learning experience through online classes is induced by the factors examined. Again, the most influential factor, among the three, is faculty support (Beta=0.418), followed by course design (Beta=0.276). The least influential factor of student perceived learning experience through online classes is the student implication (Beta=0.192).

The variance of student satisfaction is determined in a proportion of 49.3% by the two factors considered. The student perceived learning experience through e-learning platform has a higher influence (Beta=0.473) than the student perceived learning experience through online classes (Beta=0.276) on the student satisfaction.

Discussions and conclusions

Currently, the use of internet in education increased significantly. Moreover, the education institutions continue to invest in and integrate ICTs in the course offerings (Bayyat, Abu Muaili, & Aldabbas, 2021). Many universities in the world use e-learning platforms to support the face-to-face teaching-learning activities as they are efficient and engaging, help in class management and avoiding potential errors (Benta, Bologa, & Dzitac, 2014). Thus, one main good result of the lockdown in the Covid-19 pandemic was the experience of e-learning platforms and online classes.

The last three challenging years forced into action educational institutions offering onsite programmes. ICTs were tested and implemented the most suitable for each academic field. The professors had to design

the course structure for the online teaching to enhance the students' learning outcomes. But the results won't be achieved without the students' implication. The results of the research showed that the faculty support and the course design influence student learning experience to a higher extent than student implication. Moreover, this learning experience sensed by students had a constructive impact on student satisfaction with teaching-learning during Covid-19 pandemic.

As the respondents experienced a short period of back to face-to-face classes from April to May 2022, they were asked to appreciate the level of satisfaction with the face-to-face teaching-learning period. Comparing the result with their satisfaction during the online teaching period, it was visible a slightly higher satisfaction in the case of face-to-face period, the mean value increasing from 5.05 to 5.40.

The students were also inquired about their favourite online learning platform and to explain their choice. It could be synthesized from their answers that almost all respondents (96%) preferred to use Microsoft Teams, because it was easy to use, had everything in one place and made it easier to communicate with the professors and colleagues.

Furthermore, the students were questioned what they would like to be done differently or more in the teaching-learning process. They mentioned the following preferences: to continue using the e-learning platform to have all the information in one place, course materials, assignments, and projects; to have access to online classes, as its time saving, and to promote them; to have more projects assigned instead of theoretical exams, also to be offered trainings for using specific ICTs for different tasks.

This article described the experience of online classes in academic field, a faculty case study, analysing the students' perception on the unexpected forced online studying. In this situation the faculty had to find the best solution in terms of e-learning platforms, to support the students in the adapting process and use of the technology, to adjust the courses to the online learning environment, and to be present online in active ways implicating the students, answering to their requests, and supporting them in the learning process. The result of these years' experience was satisfactory for the students and beneficial for the digital development of the faculty and its staff, as the e-learning platform implemented continues to be used in the face-to-face and distance learning.

The sample size of this study is a limitation to generate results. As the data were collected at the end of academic year 2021-2022, just after the restarting of face-to-face classes post-pandemic, a major part of the students participating in our study experienced onsite classes at the faculty just for one month therefore they couldn't compare online classes with onsite classes. Just the 3rd year students had a one semester experience with onsite classes at the faculty before the pandemic outbreak.

Since the Faculty of Business offers full-time (onsite) and distance learning programs, this study will be extended to include the distance learning students in order to analyse the impact of ICTs in terms of digitalization of the teaching-learning process. Furthermore, for a complete view, the study should expand to the staff and the professors' use and satisfaction with the implemented ICTs. In this direction being considered the influence of institutional factors and the role of tech tools and resources in the success of a digitalized education system.

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