

Changes in Preferences and Attitudes Towards University Selection in the Post-Covid Era

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Abstract – General societal developments show that the COVID-19 pandemic has brought about lasting changes in attitudes towards education and lifestyle, among others. The presented study aims to verify, using a quantitative questionnaire survey method on a sample of 500 respondents each, whether there have been changes in the preferences of potential students at a selected university in the Czech Republic between pre-Covid (2017) and post-Covid (2022) years. Current studies show that the post-COVID decision-making process is, among other things, generally more affected by the relationships with family and friends. Also, the paper's goal is to verify whether this fact also applies to the area of preferences of university applicants and whether it is differentiated by gender. Based on the statistical testing and interpretation of the data, recommendations will be formulated for the marketing management of universities concerning how to adapt to changes in the preferences of applicants and how to effectively adjust the communication mix and message to the given target group, thereby increasing its interest in studying at the university. The proposed measures will thus contribute to increasing the competitiveness of universities, as they identify opportunities to target potential students more effectively.

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1. Introduction

Trends related to the competitive nature of higher education institutions (HEIs) receive more attention, as universities seek to not only place high on national and international rankings but also strive to attract gifted students.

It is precisely through educating and training good students that the potential for further growth, building, and maintaining prestige is created. Creating business strategies and implementing marketing activities is becoming an essential aspect for universities that is already being reflected in practice [1]. The issue of student preferences in terms of higher education institution selection has been widely discussed by many authors. Exploring factors that influence students' decision-making process when enrolling at a private HEI is not a new topic of study anymore. The 2014 study of Tantivorakulchai [2] shows that the location of HEI, academic rankings, available facilities, study costs, and future employment opportunities are all factors that positively influence students' decisions. The results of Rutter *et al.* [3] showed a strong positive effect of social media on the number of registered study applicants. The conclusions of the studies by Tantivorakulchai [2] and Rutter *et al.* [3] also confirm Shamsudin *et al.* [4]. The selection of a particular academic program is determined by an assessment of the preferred field of study and the specific course offerings of the HEI, as Baldwin and James [5] point out. A study conducted in Indonesia [6] highlights the need for further research into the motivations of high school graduates when selecting a university for a better understanding of marketing approaches and strategies for different segments. Their results identify two distinct preference clusters of potential students, namely those making decisions based on “social networks” (family, friends, and teachers) and “rational decision” (reputation and career prospects).

Similar results were reported by Adefulu *et al.* [7] who point out the key factors for postgraduate applicants in the Nigerian environment, which are the location of the institution, its equipment, and the composition of the courses offered, but also here it has an important place to make decisions based on the recommendations and attitudes of their family and immediate surroundings (friends). Stakeholder influence is consistent with core values in the collectivist culture of Indonesia and Nigeria.

In contrast, the attitudes of commercial engineering applicants in northern Chile are different, as declared by Araya-Pizarro [8]. University selection is primarily determined by the accreditation of the career and the focus of the curriculum. They also highlight the fact that students coming from private schools have higher extrinsic motivations but with a lower level of vocation for the career compared to students of subsidized or public education. A similar rational focus on course reputation and work placement is also shown for final year secondary school students in Ireland [9].

Najimudinova *et al.* [10] present a study from Kyrgyzstan that shows the importance of economic attributes (tuition fees, scholarships) as well as the quality and composition of academic staff. They also highlight differences in preferences by gender, region, family structure, and secondary school background of applicants. The results of quantitative research done in private schools in Oman [11] show a significant relationship between student characteristics and HEI selection decision, but also suggest that there is no relationship between external factors and HEI choice. Nanath *et al.* [12] provide one of the few insights into the change in HEI selection priorities before and after the COVID-19 pandemic. Using a MANOVA and multicriteria analysis, they determined a decrease in priority for university ranking and the level of student life. Conversely, the issue of cost (tuition fees) and the presence of e-learning mode have increased significantly in importance. These changes can be explained by students' increased focus on flexible online learning programs rather than on the actual facilities and experiences that student life on campus brings.

The divergence of the conclusions of some studies suggests a difference of attitudes in the context of cultural, economic aspects and also the question of the focus of the HEI where the research was conducted. Differences in the context of demographic characters are confirmed in the published findings. However, insufficient attention is paid to the impact of the COVID-19 crisis on the change in preferences for HEI selection as a consequence of society-wide changes.

This paper fills the research gap in terms of student preferences during the COVID-19 crisis. The aim of the present study is to examine the change in the preferences of university applicants at a selected institution in the Czech Republic before the outbreak of the COVID-19 pandemic and after the strongest waves of the pandemic have subsided and whether it is differentiated by gender. This is achieved through quantitative research conducted between 2017 and 2022 at a public university (Tomas Bata University in Zlín) in the Czech Republic. A particular focus was also put on the question of differences in preferences by gender among HEI applicants.

The paper is structured by introducing the theoretical background in the first part, setting foundations for designing the study and formulating hypotheses. The next part then presents the methodology of the research and the results, which are discussed before conclusions are made.

2. Theoretical Background

This chapter focuses on understanding the characteristic elements of generation z and brings the context of changing preferences due to the COVID-19 crisis.

2.1. Today's Generation Z Applicants

Lyons and Kuron [13] assume that a generation represents a group of persons who, due to their same period of birth, were exposed to the same or similar historical events and lived within a socio-cultural context. For this reason, people from this group (generation) were exposed to the same or very similar conditions, which resulted in the creation of typical features of behavior and thinking. Young people who are currently university applicants, students, or recent graduates are usually classified as generation z (Gen Z) [14], [15]. These are young people born between 1998 and 2010. Very few academic studies have focused on generation z as young adults, and therefore much of what is written in the popular press is conjecture and guesswork, to the extent that conflicting portrayals are presented. Generation z from the perspective of a young group of adults is addressed by a limited number of academic studies, which may be the reason for the often-contradictory portrayals in non-expert media. An example can be their heavy load on online communication at the expense of face-to-face personal interactions [16], [17]. They have no problem sharing private and personal matters [16], although they are more privacy-conscious online and prefer anonymous social media platforms.

As Košíková [18] suggests, it is typical for members of generation z not to stay focused, fail to understand the meaning of long texts, and pay attention to the environment. Research by the international agency Ogilvy [19] shows that a common argument of members of generation z is that “previous generations polluted the world and made a lot of money from it, but we will pay the consequences.” They are sensitive to sustainability issues, but unlike the previous generation, this is also reflected in their behavior. They try to behave sustainably even at the expense of their own comfort, and not only in big cities. Marketers may face the problem that gen z will not be interested in buying new goods, from the point of view of their perception of their unnecessaryness. The difference in intergenerational understanding is explained by research from IPSOS [20], which argues that while formal education was more important to gen y than practice and information, members of gen z want to gain experience in the workplace.

Silva and Carvalho [21] describe the situation in large organizations, where generation z members work as autonomous units, using online research and virtualization and emphasizing innovation. For this generation, there is a drive to do things more efficiently, in new creative ways and with the help of modern technology [22]. According to a Česko v datech [23] study, it is important that these young people are offered employment conditions in which they are motivated to develop this mindset, for example. This means being [24] able to organize their time, to do creative work in which they see meaning, not to be subordinates but collaborators, and to have the same opportunities as their higher-ranking colleagues. According to a Deloitte [25] survey, “positive workplace culture” came out on top of the reasons for gen z choosing a new employer, with 57% of respondents reporting this reason. Financial reward (which remains the most important reason for millennials) came in second for generation z with 51% of respondents.

While generation z makes up 24% of the population in the USA [15], in the Czech Republic it is only 20%. Generation z is considered to be more educated than the previous generation. Almost half (45%) of its members are still in school, 3 out of 10 are employed full time, 2 out of 10 are working part time, and 1 out of 10 is on parental leave [20].

A study by Česko v datech [23] found that six and a half percent of the Czech population is aged 17 to 23 years old (about 30 % of generation z), which represents potential university students. Another one-third of generation z are teens aged 10 to 16 attending school and their economic activity is possible in the next few years.

According to predictions, the young workforce will be in demand in the labor market, while their purchasing options will have greater potential. Due to the continuous development of healthcare, they should have a higher average life expectancy (76 - 82 years depending on sex) [23].

Generation z, sometimes called "digital natives", live mostly online, have access to the Internet not only on their home computer, but are rarely seen without a mobile phone (or tablet or smartwatch), communicate via text messages and various social networks, and listen to music on Spotify or YouTube [26]. In the U.S., 95% of teens used a smartphone in 2018, compared to only 73% in 2014. According to surveys in 2018, around half of them were online, which is 26% more than in 2014 [27]. Influencers have the most trust and influence online, with emotions and respect for the environment right behind. Unlike celebrities in the traditional sense, these are regular teenagers who have built their audience on platforms like YouTube and Instagram. More than half of them (52%) trust influencers enough to take their advice and recommendations when choosing specific products or brands.

According to a survey of 103 Czech communication managers, generation z values sustainability and environmental friendliness (74%), entertainment (62%), and good customer experience (56%) the most in brands, while messages focused on tradition and guarantee do not work in communication to generation z [19]. What they consider important is having real friends and many life experiences as well as authenticity (of producers, brands, personalities, and institutions). Their close relationship with technology has resulted in stronger individualism (compared to other generations) in the process of learning and interaction with other people [15]. Comparing generation z to millennials, in the context of group behavior among university students, shows an hour less time devoted to face-to-face social interaction, which is traded for an hour more screen time. According to the results, they enjoy friendships less and do not trust each other more regarding the proper performance of assigned tasks by individual team members [28], [29]. Gen z is also characterized by a high level of individualism and self-awareness, which is often seen as a result of the growing popularity of social media and easy access to information. In addition to being known for being tech-savvy, this generation has been shaped more by crises than technology – a rise in school shootings, climate change, terrorism, the recession and, notably, the COVID-19 pandemic. These dark events have undoubtedly made this generation more cautious and pragmatic, but they have also provided it with inspiration to change the world [30].

2.2. Changes in Preferences in the Covid Era

An overall understanding of each generation, its behaviour, and preferences provides guidance for marketers. While it is true that generations have a framework of defined values, communication habits, and preferences, we must not forget that not all members of a generation are the same. Just as in older generations, for instance generation x, we find consumers with different profiles and preferences in relation to different behavioural areas, so in generation z we can find a variety of different consumer types. Despite the definition and profiling of the different generations, which have common unifying characteristics, when targeting communication, it is necessary to be aware of the social and value profile of the generation in relation to preferences according to the different life stages. For example, a student may have a limited income compared to an employee with a regular income, just like a skilled member of the generation (a person with a university degree) compared to an unskilled worker [31], [32], [33]. The situation will also be different for members of generation z who are no longer studying, are employed, and are building their first home compared to members who already have a family and children and whose preferences are more towards satisfying the needs of their family. It is no different in the case of choosing a university. Here the main difference lies in the fact that most full-time applicants are recent high school graduates with a diploma, living in the same household as their parents. It is therefore clear that in terms of the social profile, the situation is quite straightforward, and more focus needs to be put on targeting communication with regards to the choice and preference of communication channels.

Research by Simic and Pap [34] shows that the impact of increased online shopping frequency and behaviour among generation z in Croatia is not dramatic. In general, this generation has always preferred and perceived the online world as a necessary part of their lives, and this fact has only been reinforced as a result of COVID-19. On the one hand, there has not been a dramatic change in (physical) shopping behaviour, but other research confirms the vulnerability of generation z compared to older generations. While Stolzenberg *et al.* [35] found that about 44 - 59 % of millennials feel more than average emotional well-being, this is significantly less for generation z: 50.4% of males and 34% of females, respectively. A possible reason for this may be the events that this generation has experienced. In fact, many changes in the external environment have had an impact on this generation in a short period of time.

This generation grew up under the sign of progressive technological development, the fight for equal rights and tolerance for minorities, and the global pandemic of COVID-19. Understanding gen z is crucial not only for marketing strategies and strengthening the market position of commercial brands, but also for educational institutions, precisely in the context of constantly changing conditions [15].

Anxiety and depression are common in generation z and are generally associated with slower adaptation to change, in this case the COVID-19 pandemic.

The currency of young people is greater openness to change, experience and self-improvement, despite their less resistance compared to older individuals [36], [37], [38]. Based on this, we can assume a higher emotional sensitivity among gen z.

Park *et al.* [39] examined the impact of negative emotions experienced during a pandemic on shopping behaviour, deriving a total of 4 emotional groups through clustering analysis. The results revealed that all emotional groups affect socialization seeking and influence high-priced shopping intentions. The results brought a closer look at the socialization of the identified emotional groups as well as their purchasing behaviour in the case of expensive goods.

Moreover, the Italian study revealed that the behaviour of consumers when purchasing not only necessary but also unnecessary goods is predictable not only on the basis of personality traits, but also on the basis of economic stability and self-justification of the purchase [40].

The development of marketing strategies based on psychological factors is based on the behaviour and values of consumers who have been subjected to the consequences of the COVID-19 pandemic and related sociological and economic changes in the recent past [41].

3. Methodology

The aim is to examine the change in the preferences of university applicants at a selected institution in the Czech Republic between pre-Covid (2017) and post-Covid (2022: after the strongest waves of the pandemic) years have subsided and whether it is differentiated by gender. This study used a quantitative survey approach that has long been employed at Tomas Bata University in Zlín (Czech Republic).

It is based on the theory of Adcock and Collier [42], which in the framework of quantitative research presents an emphasis on the objectivity of the obtained data and their subsequent mathematical-statistical analysis [43]. To achieve the research objectives, the design of the research is necessary to be created appropriately [44].

The survey instrument is a questionnaire that is regularly presented to applicants by university representatives. The questionnaire monitors, among other things, factors important in the decision-making process of university selection, the perceived image of the university and individual faculties, as well as communication tools from which potential students learn about the university/field. The different factors of influences are measured on a five-point Likert scale, where one signifies no influence at all and five represents extreme influence.

Out of a total of 1023 questionnaires collected in 2017 (520) and 2022 (500), 23 questionnaires were discarded due to incorrect completion. Thus, 516 questionnaires from 2017 and 484 from 2022 were evaluated. Research population is characterized in Table 1.

Table 1. Research sample structure for each year by gender

			Gender		Total
			Men	Women	
Year	2017	n	177	339	516
		%	34.3%	65.7%	100,0%
	2022	n	132	352	484
		%	27.3%	72.7%	100,0%
Total		n	309	691	1000
		%	30.9%	69.1%	100.0%

Source: authors

Published studies from the field of marketing that focus on changing customer values and preferences indicate that after the 2020-2021 COVID-19 crisis, customers place more emphasis on the emotional side of their decision-making than they did before the crisis [34], [39], [40], [41].

Based on the literary review, a research question was then formulated to answer how these preferences in university selection are changing due to the COVID-19 crisis. Given the published findings, it can be assumed that the COVID-19 crisis has also caused an increase in the emphasis on the relational and emotional side of decision-making in the area of preferences in university selection. Another aspect to be examined is whether these changes are observed in both men and women. To achieve the aim of the study, the following research hypotheses were set:

RH1: The emphasis on emotional factors among applicants (generation z males) applying for a bachelor's degree program at the Faculty of Multimedia Communications increased significantly after the COVID-19 pandemic subsided.

RH2: The emphasis on emotional factors among applicants (generation z females) applying for a bachelor's degree program at the Faculty of Multimedia Communications increased significantly after the COVID-19 pandemic subsided.

The data were processed according to Mareš *et al.* [45] using basic descriptive statistics, and the hypotheses were tested using an independent sample Student T-test at 5% and 1% significance levels (two-tailed). The statistical significance of the identified preference differences was determined using Cohen's d, where values of |d| at 0.20 indicate a small effect, 0.50 indicates a medium effect, and 0.80 indicates a large effect [43], [45]. Using the G*Power software, a test power of 0.95 (with effect size conventions of $d = 0.3$ and $df = 578$) was indicated for comparing the means of two independent groups using a T-test with a minimum population size of 290 respondents (a total of 580 respondents for both populations). It can be concluded that the selected research population size (1000 respondents) is sufficiently large for the proposed statistical tests given the desired test power [46]. The data were evaluated by testing factors (and the means of groups of factors) for which applicants rated their preference in terms of their perceived importance on a scale of 1 to 5, with 1 being the least important and 5 being the most important. A total of 10 factors were tested, divided into rational and emotional factors:

Rational:

- R1 Employability (job opportunities for graduates)
- R2 Faculty achievements in scientific and publishing activities
- R3 Faculty material environment (technical, spatial)
- R4 Space for personal development
- R5 Form of admission procedure
- R6 Distance from home
- R7 Prestige of the university (reputation among the general public)

Emotional:

- E1 Friendly atmosphere
- E2 Friends and acquaintances are already enrolled
- E3 Good quality professors, their approach, expertise, and professionalism

The Cronbach's alpha result [47] of these 10 factors is 0.701, with a value of 0.7 or more indicating high internal consistency and reliability experiences.

4. Results

The perceived importance of each factor in applicants' university selection decision was examined for years before (2017) and after (2022) the COVID-19 pandemic. The results of arithmetic means of ratings on a scale of 1 to 5 (where 5 is the most important) are presented in Table 2. From these results, it is clear that before the crisis, the most important factor in the decision-making process was a friendly atmosphere, but after the crisis period, this element was on average equal in importance to the question of employability but also the quality of professors. On the other hand, the least important factors were R6 Prestige of the university (reputation among the general public) and E2 Friends and acquaintances are already enrolled. At the same time, we can observe a significant increase in emotional factors in 2022 after the crisis in the country subsided. This increase has caused that, compared to 2017, when the importance of rational and emotional factors was more or less equal for both genders; emotional factors appear to be more important for both genders after the crisis.

Table 2. Arithmetic means of the rated importance of each factor

Year	Gender	R1	R2	R3	R4	R5	R6	R7
2017	Men	4.02	3.39	3.59	3.85	3.00	2.59	3.45
	Women	4.24	3.38	3.60	4.02	3.19	2.47	3.62
	Total	4.17	3.39	3.59	3.96	3.12	2.51	3.56
2022	Men	4.35	3.19	3.73	3.95	3.12	2.87	3.53
	Women	4.46	3.32	3.73	4.35	3.30	2.56	3.68
	Total	4.43	3.28	3.73	4.24	3.25	2.64	3.64
Total	Men	4.15	3.31	3.65	3.89	3.05	2.71	3.48
	Women	4.35	3.35	3.66	4.19	3.24	2.52	3.65
	Total	4.29	3.34	3.66	4.10	3.18	2.58	3.60

Year	Gender	E1	E2	E3	R1-7	E1-3
2017	Men	4.33	2.12	4.01	3.41	3.49
	Women	4.45	1.92	4.08	3.50	3.48
	Total	4.41	1.99	4.05	3.47	3.48
2022	Men	4.30	2.81	4.41	3.51	3.84
	Women	4.47	2.34	4.44	3.61	3.75
	Total	4.43	2.47	4.43	3.58	3.77
Total	Men	4.32	2.41	4.18	3.45	3.64
	Women	4.46	2.13	4.26	3.55	3.62
	Total	4.42	2.22	4.24	3.52	3.62

Source: authors

Table 3 presents the examined differences before and after the Covid era in terms of changes in preferences among men for each individual factor as well as the two groups of factors (rational and emotional) using a T-test.

Statistically significant differences were identified in the case of factors R1, E2 and E3 (at the 5% significance level), while according to the results of Cohen's d, there is a weak effect for R1 and E3. In the case of factor E2, there is a medium statistically significant increase in the importance of this factor. The last two rows of Table 3 provide a look at the T-test results for the change in preferences among men within the entire groups of rational and emotional factors. It is quite clear that there was a significant increase in the importance of emotional factors in the decision-making process with a medium effect ($p < 0.001$, $|d| = 0.571$). Thus, it is interesting to note that although generation z is considered to be more strongly individualistic, the importance of such factors as atmosphere, the composition, attitude, and professionalism of teachers, and the fact that applicant friends and acquaintances are already enrolled, increases in the post-Covid era for male applicants.

Table 3. Independent samples test for men

	Levene's Test		T-test for Equality of Means		
	F	Sig.	T	Sig.	Cohen's d
R1	19.117	<0.001	-2.707	0.007**	0.294
R2	5.490	0.020	1.599	0.111	0.181
R3	0.424	0.516	-1.109	0.268	0.128
R4	7.628	0.006	-0.725	0.469	0.081
R5	6.572	0.011	-0.820	0.413	0.096
R6	0.001	0.981	-1.955	0.052	0.225
R7	0.045	0.831	-0.618	0.537	0.071
E1	0.044	0.835	0.313	0.754	0.036
E2	44.823	<0.001	-4.914	<0.001**	0.603
E3	25.631	<0.001	-3.364	<0.001**	0.358
R1-7	4.938	0.027	-1.176	0.241	0.134
E1-3	6.677	0.010	-4.842	<0.001**	0.571

Note: * statistically significant differences at the 5% significance level, ** statistically significant differences at the 1% significance level

Source: authors

Similar to males, females also experienced a significant increase in emotional factors ($p < 0.001$, $|d| = 0.478$) with a medium statistical effect after the crisis (Table 4), with significant changes with weak effects for E2 (Friends and acquaintances are already enrolled) ($p < 0.001$, $|d| = 0.385$) and E3 (Good quality professors, their approach, expertise, and professionalism) ($p < 0.001$, $|d| = 0.393$). In contrast to men's attitudes, women's preferences also changed significantly for rational factors R1 (Employability) and R4 (Space for personal development), which subsequently translated into a significant increase in preferences for the whole group of rational factors with a weak effect ($p = 0.012$, $|d| = 0.196$).

Table 4. Independent samples test for women

	Levene's Test		T-test for Equality of Means		
	F	Sig.	T	Sig.	Cohen's d
R1	32.539	<0.001	-2.710	0.010*	0.209
R2	2.358	0.125	0.858	0.391	0.065
R3	15.189	<0.001	-1.960	0.050	0.150
R4	22.323	<0.001	-4.446	<0.001**	0.341
R5	0.110	0.740	-1.254	0.210	0.096
R6	1.227	0.268	-0.905	0.366	0.069
R7	1.428	0.232	-0.779	0.436	0.059
E1	0.043	0.836	-0.415	0.678	0.032
E2	65.534	<0.001	-5.075	<0.001**	0.385
E3	18.102	<0.001	-5.117	<0.001**	0.393
R1-7	23.998	<0.001	-2.531	0.012*	0.196
E1-3	4.951	0.026	-6.269	<0.001**	0.478

Note: * statistically significant differences at the 5% significance level, ** statistically significant differences at the 1% significance level

Source: authors

5. Hypothesis Verification and Discussion

Marketing-related research [34], [39], [40], [41] points to the fact that customers' preferences have changed after the COVID-19 crisis, with regards to changing priorities, lifestyle views, and security. These changes have also been examined in the younger generation, in which it is possible to find commonalities with respect to the period in which its members grew up. In this paper, researchers sought to find out whether (and how) the fact that regular businesses had to adapt their marketing approach to the aforementioned change in customer preferences also manifests itself in the decision-making process of university selection, thus bringing about a need to adjust the marketing approach and communication of the given institution. The literary review led to the formulation of the research question: "How are applicants' university selection preferences changing due to the COVID-19 crisis?" The published findings to date agree on the point that the impact of the crisis has led to a greater emphasis on emotional factors in purchasing decisions than was the case in the pre-crisis period. It is conceivable that this trend may also be observed in the case of preferences for university selection and, therefore, that the emphasis on relational and emotional aspects of decision-making has also increased due to the crisis. On the other hand, Nanath *et al.* [12] report a decrease in the priority of university ranking and the level of student life and, conversely, an increase in the importance of cost (tuition fees) and the presence of e-learning mode as a result of the COVID-19 pandemic. At the same time, there is the question of whether these changes are observed in the case of both men and women. Two research hypotheses were formulated in this research:

RH1: The emphasis on emotional factors among applicants (generation z males) applying for a bachelor's degree program at the Faculty of Multimedia Communications increased significantly after the COVID-19 pandemic subsided. The results of the independent T-test (two-tailed) confirmed a significant increase in the importance of emotional factors in decision making with a medium effect ($p < .001$, $|d| = 0.571$) at the 1% significance level. These changes are statistically significant for factors E2 (Friends and acquaintances are already enrolled) and E3 (Good quality professors, their approach, expertise, and professionalism) with a weak to moderate statistical effect. It bears highlighting that of the 7 rational factors, only R1 (Employability) showed a significant increase in importance for males. It can be concluded that based on the results shown in Table 3, research hypothesis RH1 has been verified.

Similarly, research hypothesis RH2 was formulated for the group of women (female university applicants): The emphasis on emotional factors among applicants (generation z females) applying for a bachelor's degree program at the Faculty of Multimedia Communications increased significantly after the COVID-19 pandemic subsided. The results of the T-test at the 1% level of significance identified a significant increase in the importance of emotional factors ($p < .001$, $|d| = 0.478$) with a medium statistical effect (Table 4) in the case of university selection among female applicants, thus verifying RH2. Specifically, within the emotional factors, there was a significant increase in importance (with small to medium effect size) in the case of E2 (Friends and acquaintances are already enrolled) ($p < .001$, $|d| = 0.385$) and E3 (Good quality professors, their approach, expertise, and professionalism) ($p < .001$, $|d| = 0.393$). In contrast to men's attitudes, women showed significant changes in preference for rational factors not only for R1 (Employability) but also for R4 (Space for personal development). This resulted in a significant increase in preference for the whole group of rational factors, albeit with a very weak effect ($p = 0.012$, $|d| = 0.196$). This is probably due to an increase in social and economic insecurity, with applicants being more motivated to study fields with higher employability (R1). The increase in the importance of space for personal development (R4) can again be justified by the generational characteristics of gen z applicants, who are more individualistic than millennials. The assumptions made based on studies focusing on shopping behavior and preferences as affected by COVID-19 [34], [39], [40], [41] have been confirmed in the research. However, they do not coincide with the findings published by Nanath *et al.* [12].

This may be due to the fact that their data collection was conducted at the time of school lockdowns (June 2020) in the UAE on final year undergraduate students (business school, computer engineering, and computer science) who were interested in pursuing a second degree. The sample size was also smaller, with 115 students interviewed in the pre-Covid era and 125 students participating in the post-Covid interview.

Consequently, the results suggest that when selecting a university, members of generation z exhibit increased emotional sensitivity in the post-Covid era, perceive greater importance of potential future security through graduate employability, and generally place greater emphasis on emotional factors. Similar findings can be observed in the case of work culture preference surveys of Slovak companies. As a result of the pandemic, there is an increased need for principles based on clan culture, which is characterized primarily by family background with an emphasis on social ties in the workplace [48], [49]. We can therefore conclude that these changes in values and priorities are manifested in the post-Covid era in multiple areas and are confirmed by the findings of this study. These influences should be taken into account when establishing marketing and communication activities [50], [51], including the selection of media, tools, and communication content. The limitations of the presented results are in the fact that they are limited to a specific HEI in the Czech setting and a specific focus of the undergraduate applicants (namely the Faculty of Multimedia Communications). According to studies (such as [7], [10]), the preferences of applicants depend on multiple attributes, such as gender, culture, family background, type of high school, and the focus of the HEI, creating the need for more comprehensive cross-national research.

6. Conclusion

The present study aimed to examine the change in the preferences of university applicants at a selected institution in the Czech Republic before the outbreak of the COVID-19 pandemic and after the strongest waves of the pandemic have subsided and whether it is differentiated by gender. The results of the research confirm statistically significant changes in the preferences of young men and women (generation z) in university selection. There was evidence of increased emphasis on the group of emotional factors (friends who are already enrolled, quality of professors), which corresponds with the assumption based on the results found in marketing and HRM research. The limitation of the results presented has to do with the fact that the research was conducted on just one humanities-oriented HEI. Therefore, in addition to their practical use for HEI management,

these results can be used as a basis for validation of further research involving several HEIs, not necessarily only at the national level. Based on the above findings, it is evident that there is a need to consider the following when engaging and communicating with generation z university applicants

- consider providing and advertising a greater range of wellbeing activities for new students to eliminate the impact of negative emotions or depression from times of crisis;

- identify what makes studying at the particular university “interesting” for this generation;

- if the “customer experience/references” and the “quality of professors” are important factors for the applicants, as well as individual approach or space for personal development, it is advisable to film interviews, create promotional videos about the scientific and research activities of professors, distribute them on social media, promote stories of students and graduates, their successful projects, interesting internship opportunities for students, successful entrepreneurship, coping with personal studying difficulties or employment successes in reputable companies in the field. All of these can be more crucial than ever in the decision-making process;

- for smaller universities in less developed areas during more economically challenging times, create and advertise a sample calculation of the costs of studying in comparison with large cities (Prague, Brno) and universities located in those cities in order to emphasize the opportunities of earning money while studying, the connection to practice during studies in the form of paid internships, etc.;

- promote the quality and modernity of material facilities, not only for studying but also for extracurricular activities. The deciding factors that ultimately make the difference can include equipping buildings with world-class technologies and facilities as well as a canteen with a selection of high-quality meals (including diet, vegetarian, and other options), good and affordable accommodation or spaces for entertainment and leisure.

In order to set up a more effective communication strategy, it is advisable to carry out at least a qualitative survey (or to verify its results quantitatively) to find out how the applicant's decision-making process takes place over time and what are its phases, factors, and communication tools acting on the applicant as adjusted according to the selected field of study. It may also be interesting for marketers to analyze in more detail what are the causes and how the “interestingness” factor is manifested in the eyes of applicants or what are the factors by which applicants evaluate the quality of studying at a particular HEI and how to effectively communicate quality to them.

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