Impact of COVID-19 Pandemic on health, social life, shopping and hobbies of Kazakhstan citizens

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Impact of COVID-19 Pandemic on health, social life, shopping and hobbies of Kazakhstan citizens

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Abstract

The pandemic has changed the lives of people beyond recognition around the world and Kazakhstan is no exception. This study aims to determine how behavioural patterns of Kazakhstan citizens have changed with regards to health, shopping, social life and hobbies before and during the COVID-19 outbreak. Building on existing pandemic issues it analyzes whether particular aspects of life have any correlation with gender, occupation, marital status, age group and people's budget.

Based on the existing problems that have arisen as the consequence of the virus spread, the online was developed and distributed to people across Kazakhstan. Analysis of the responses demonstrated that indeed the way of living has changed to a greater or lesser extent. On this basis, a recommended marketing strategy was developed on how to attract customers now in such difficult times.

Keywords: pandemic, kazakhstan, behavioral changes, market changes before and during pandemic

Contents

Introduction

COVID-19 infection has affected over 10 million people around the world and not losing momentum yet. Just as the pandemic spread all over the world, people's lives have changed dramatically. We are fortunate that the pandemic is taking place in the digital age and as a result universities continue to give lessons in an online format, people began to work at home and with the help of social networks and instant messengers people still continue to communicate.

Nevertheless now more and more often you can hear the opinion that the coronavirus pandemic will forever change our lives. What consequences are expected after a stubborn fight against coronavirus? What professions will be in demand? What areas of the economy expects an influx of investment? What reforms will be required?

The aim of the research is to identify changes in people's behavior, in their lifestyle and consumer habits covering only residents of Kazakhstan. It is anticipated that stay-at-home measures altered shopping and social habits, the way people consume alcohol and takeaway food, increased demand for entertainment such as video games, music and movie subscriptions, dating apps and completely shifted people's attitude towards health-care and hygiene. The fields mentioned above are included in our survey which was conducted specifically for research purposes.

Data is collected via online-survey tool for the qualitative method of research. A large amount of people are covered from all regions in Kazakhstan. A questionnaire for conducting a qualitative survey is anonymous which does not include any political or religious topics.

The outcome of the research are the recommendations for marketing strategies which will reflect age groups, gender and occupation of target audience or potential consumers of certain products.

Background

Preparation for pandemic has started since 26th January 2020 by strengthening control on the border with China. Government commission introduced certain restrictions related to country visiting and goods transportation procedures. However, Kazakhstan decided to completely close customs with China on 4th February 2020. Border was open only for Kazakhstan citizens, official delegations and goods transportation.

Countries with large amount of infected people were categorized by certain risk level. After arrival in Kazakhstan citizens were hospitalized or advised to be self-isolated during two weeks regarding the country category that they are coming from. The first case of COVID-19 infection was registered on 13th March 2020 in Almaty. Group of Kazakhstan's tourists arrived from Germany, which was in the stage of rapid spread of coronavirus infection.

According to the official statistics, number of registered cases in Kazakhstan as of 30th of June is 22308. 13558 are recovered and 188 died. 18757 citizens do not have any symptoms and are not included in statistics below on the chart. The Figure 1 shows daily registered cases in Kazakhstan. Government could save time and prepare existing hospitals and build new ones within short period of time. However, new cases are registered every day with increasing amount of people recovered.

Figure 1: Daily new cases in Kazakhstan
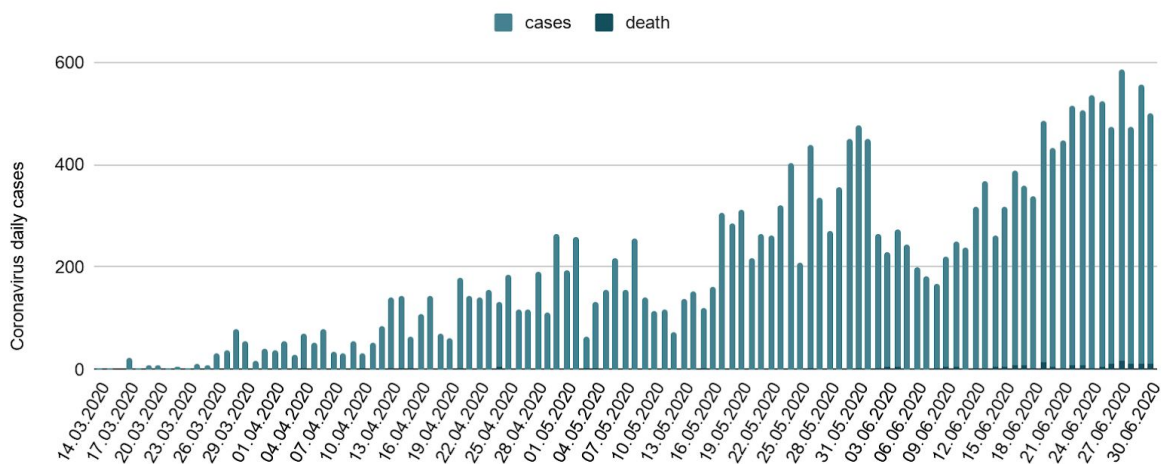
Official lockdown has started from 19th of March and ended on May 11th 2020. Governmental restrictions were prolonged two times, it allowed to restrain infection growth. This period of time was very hard for Kazakhstan citizens. Increased social tension and disagreeing with government decisions were affected as well.

Due to pandemic retail, entertainment, transport, services, manufacturing fields of economy fell down significantly. A lot of citizens lost their jobs, on the other hand, most of people worked remotely. People who were not able to work during pandemic applied for state aid which was amounted in 42500 KZT per person. Based on the official statistics, 4.1 mln citizens have received such financial support. It is 22% of total population of Kazakhstan.

The announcement made on 11th May 2020 introduced gradual recovery plan. It stated that large retail centers, beauty salons, parks are opened with strong recommendation to wear community masks. Public transportation in the cities started to work within certain time frames. From 1st June 2020 air and rail transportation resume for passengers. Kazakhstan is ready to open air connection with countries, where pandemic has completely ended. Another countries will be categorized based on high recovery rates and continuing lack of new cases registered. Entrance block posts around all cities are removed. School graduation ceremonies are conducted only for senior classes.

The government introduced complex economy recovery plan, which is aimed to increase business activity, employment and wealth of population. A lot of new job opportunities related to roads, schools and hospitals constructions became available for people who lost their jobs. It will definitely stimulate economy of Kazakhstan. 10 billion USD was directed for Anticrisis program.

According to the Ministry of Health of the Republic of Kazakhstan statistics 85% of infected people have no symptoms. For this reason official statistics from 3rd June 2020 does not include people without any symptoms. In fact, number of infected people is increasing. There is some updates took place that starting from 1st July 2020 people with and without any infection symptoms are included in overall statistics.

Government expected to have 2nd wave of pandemic in fall 2020, however, it has already started at the end of June. Kazakhstan is able to repeat "Italian scenario". There are problems with equipment in hospitals and shortage of doctors. Main cities are not able to cover all emergency calls due to lack of ambulance service workers and cars. Such terrible situation is observed due to early lockdown easing. A lot of people do not comply with sanitary requirements. Most of citizens do not wear community masks properly. Families are often gathered with large amount of relatives invited.

Pandemic has already helped to reveal all problems of healthcare, education systems and infrastructure. Such stress test of state and government allowed to identify that bubbled staff of civil servants could be cut off. All administrative services can be provided via e-government portal. During pandemic all communication channels and state web-sites were overloaded. It has been proven that infrastructure has no sufficient capacity to process large amount of data and flow of people.

Statistics

In order to understand how pandemic has affected Kazakhstan citizens some statistical data was examined. Data reflects information regarding health, shopping, social life and hobbies. It has been gathered from different sources. Charts below represents figures before and during COVID-19 pandemic. The starting point reflecting two time frames is 14th March 2020.

Figure 2: Price of medicine in Kazakhstan
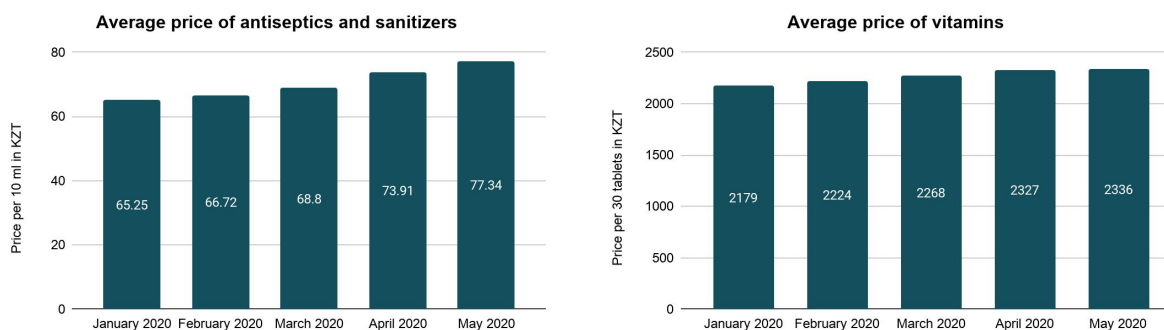
The changes in prices demonstrate how much certain product is demanded. Gale. D states that the price is highly depended on supply and demand of the product. If demand for certain product exceeds supply it causes increase of price. The equilibrium point between demand and supply determines fair price. (Gale, 1955)

Prices for medicine were taken into account in purpose to reveal how people reacted to the pandemic by buying them. The figure 2 illustrates the price for antiseptics and sanitizers in Kazakhstan. The price is represented in KZT per 10 milliliters of liquid. As a result, price before pandemic was lower than during. As of May 2020 antiseptics cost 16% more compared to February, while vitamins' price rose by 5%. For example, if price for 30 tablets of vitamins in average costed 2224 KZT in February, the price in May has grown almost by 100 KZT. Such data was derived from Consumer Price Index data provided by official Statistics committee of Ministry of National Economy of the Republic of Kazakhstan.

Figure 3: Price of alcohol and convenience food
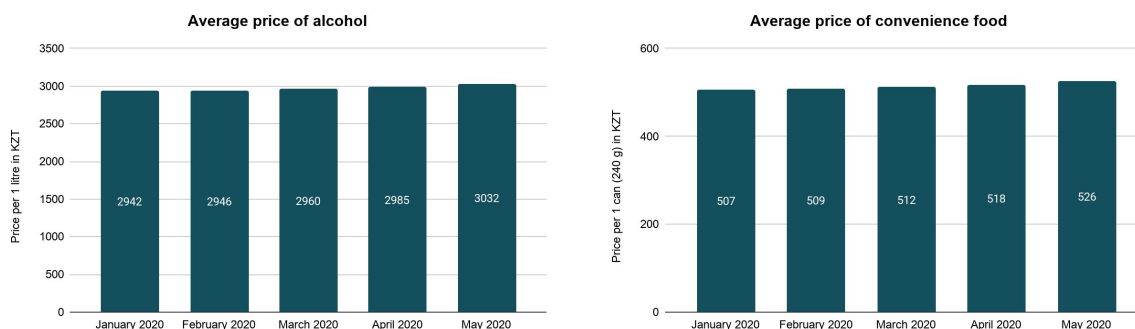
Statistics committee also provides information for specific consumer goods such as alcohol and convenience food. The charts above represent that average price for alcoholic drinks

slightly increased by 3% in May relatively to February. Moreover, convenience food had 3.3% growth during the pandemic. Taking into consideration that current annualized inflation rate is 6.7%, the growth by 3-4% within several month will have significant impact by the end of the year.

Figure 4: Dynamic of popularity of social networks in Kazakhstan

Scale: 0 = data is not available, 50 = half popularity, 100 = pick of popularity
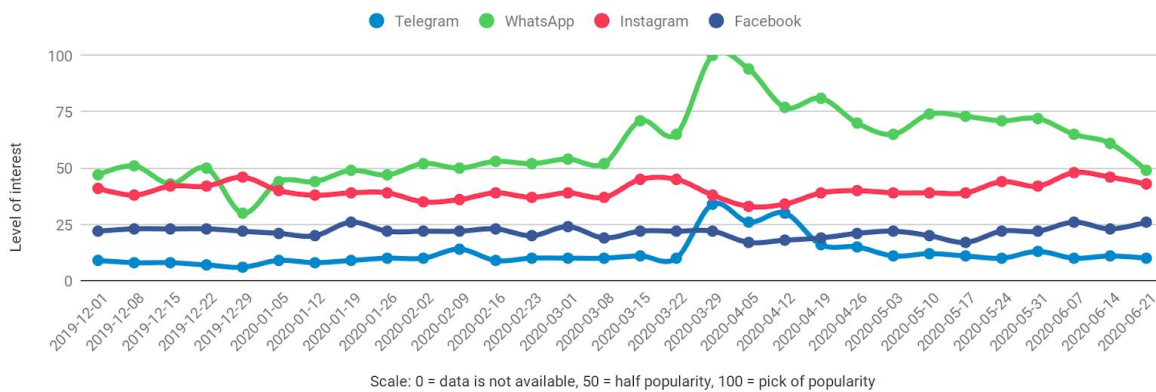
The chart above shows dynamic of popularity of social networks in Kazakhstan. The most popular social networks are WhatsApp, Instagram, Facebook and Telegram. After the governmental restrictions took place popularity of WhatsApp has increased twice. Telegram messenger also demonstrated significant growth after announcement of lockdown. Nevertheless, Instagram and Facebook almost had the same level as before. Those figures represent level of interest of users from 0 to 100 regarding search inquiries in Google Search service, where 100 is the peak of popularity and 0 means that the term has no sufficient data.

Figure 5: Dynamic of popularity of movies streaming platforms in Kazakhstan

Scale: 0 = data is not available, 50 = half popularity, 100 = pick of popularity
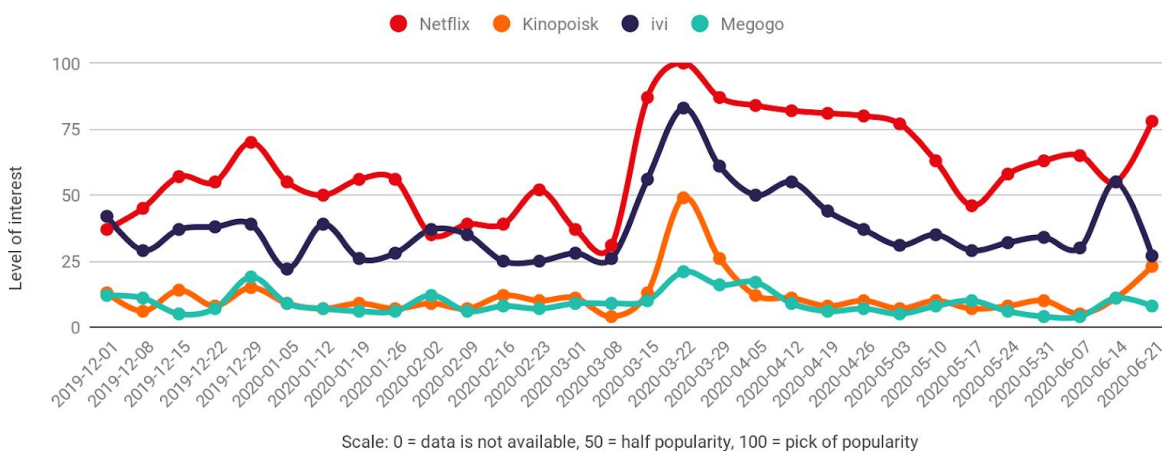
As for the chart above, pandemic affected online the way people watched movies. Interest for Netflix has grown dramatically, especially by 400% after official lockdown started. The same situation observed for ivi and Kinopoisk services. People started to watch a lot of films and series during pandemic. Megogo has relatively low interest from Kazakhstan's viewers side. However, those popular services were forces to reduce quality of video from Full HD to HD or even to 480P. This helped to keep traffic not to be overloaded.

Figure 6: Dynamic of popularity of food delivery services in Kazakhstan
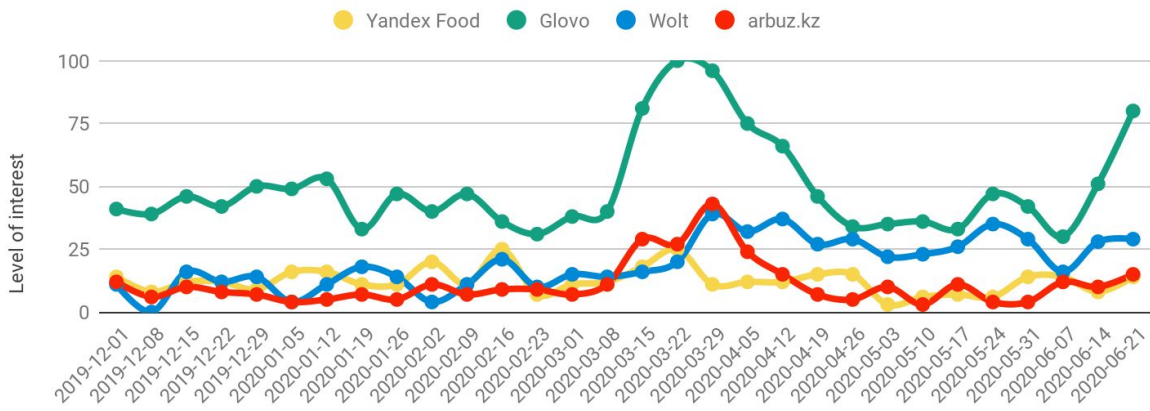
Most of people like to order delivery food in Kazakhstan, but they do it just in case of insufficiency of time or willingness to eat unusual food at home. The chart above reflects popularity of food delivery services in Kazakhstan. The most popular services are Glovo, Wolt, Arbuz.kz and Yandex food. It is clearly visible that popularity of such services rapidly increased during pandemic. For instance, level of interest to Glovo, Wolt and Arbuz.kz services increased by 50%.

Information described above will help to compare actual situation in Kazakhstan with results of survey and reveal some insights. It will allow to explain some causes by reinforcing them by official statistics.

Methodology

Qualitative research method was used in this research. A particular online survey was developed and distributed among our families, friends, classmates and people who are interested in. In order to increase the reach of people we kindly asked some bloggers, whose audience is targeted at the educational sector, to publish the link of the survey and share it on their personal pages in social networks such as Facebook, Telegram and Instagram.

We are fortunate enough to overcome the quarantine in a digital age. COVID-19 had a positive impact on regular citizens' IT skills in our country. Such changes encouraged them to get out from comfort zones and understand the importance of digitalization because pandemic demonstrated people that it has a huge influence on fields like logistics and e-commerce, banking and financial affairs, digital media, telecommunication and technology, educational sector and even more. People started to use more video call applications, online food delivery services and online shopping.

Taking into consideration, plenty of people did not have bank account at all. Due to the pandemic there was an increased trend in the number of online-banking users. Moreover, universities, high and secondary schools moved to remote online education. People are trying to provide quality education outside non-working educational institutions. For this reason, parents started to teach their children via TV and using Internet and other different educational apps. Different business sectors are experiencing difficulties in such hard times and digital technology will play a big role in transforming their activities.

With regard to the survey it contains several sections that cover health, consumer behaviour, social life, creativity, entertainment and overall response of the citizens to such unusual situation. Respondents should have been to answer 16 questions by filling out text answers or choosing number in the scale ranked from 0 to 10, where lower and upper value in this range had specific meaning. At the end of the survey demographic section was included. There are questions that cover individual characteristics regarding their gender, age, marital status, city and profession. It takes up to 4 minutes to complete the whole survey. It is completely anonymous and does not include questions related to politics and religion. Some questions were mandatory but some not.

Executive summary

We wanted to find out if individual characteristics affect a particular answer. The last questions in our survey were sociodemographic, i.e. we tried to find out people's gender, age, social status, level of education and etc. These questions intentionally were put in the end so the responders wouldn't feel overwhelmed by such personal questions in the beginning. In this case the sociodemographic data is crucial in terms of identifying people of what gender, age, region, and social status were more or less susceptible to the effects of an outbreak of COVID-19.

**Figure 7: Age and gender distribution among participants**
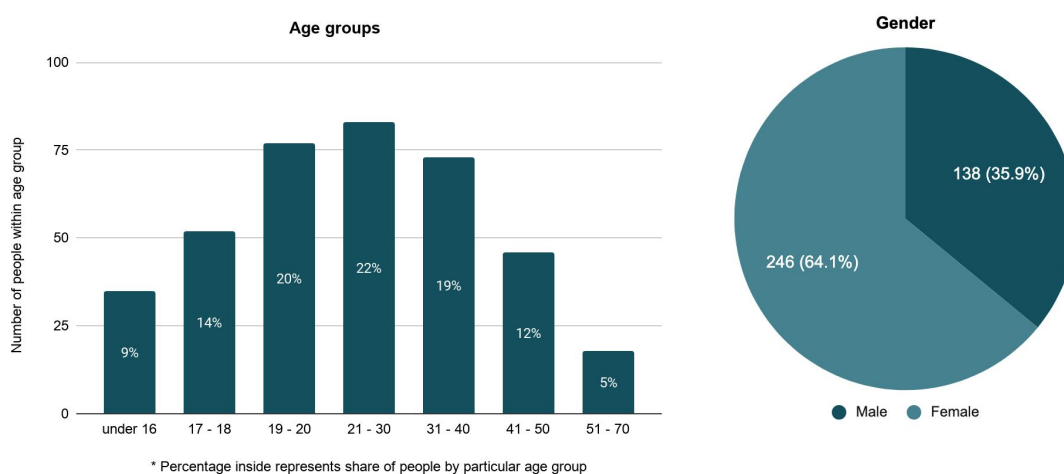
From the chart above it can be seen that the majority of participants in our online survey are in the 21-30 age group and took more initiative in taking the survey. They are followed by people in the age range 19-20 and from 31-40 with 20% and 19% respectively. The results have shown that kids, teenagers and elderly people demonstrated less interest in undertaking this survey. The youngest participant in the survey is 13 years old, while the oldest is 67.

Age	Min	Mean	Max
Male	14	28	56
Female	13	27	67

From the diagram on the right it is also clear that the vast majority of participants are females. There is no way to be sure that the survey was distributed more among women, but it should be noted that according to the latest official statistics men make up 48.3% and women make up 51.7% of the population in Kazakhstan. From the table above it can be seen that the average age of a male participant is 28 while for a female participant it is 27 years old. The minimum age for a male and female participants are 14 and 13 years old while the maximum age is 56 and 67 years respectively.

Figure 8: Occupation and marital status among participants

Respondents by profession
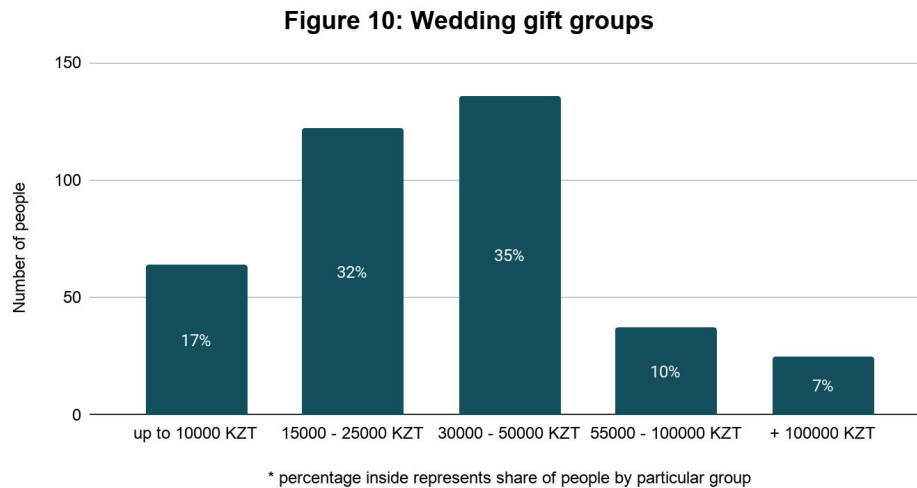
Respondents by marital status
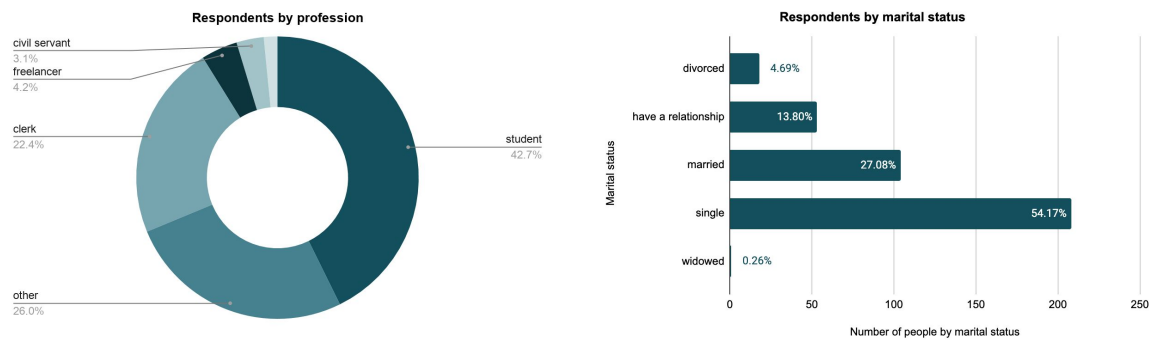
Regarding the type of occupation, no one has missed this question by clicking on the "No answer" button. A large number of people surveyed are students (42.7%), followed by other professions (26%) and clerks (22.4%) respectively. Freelancers make up a small fraction of our survey with only 4.2%, and there were 3.1% of civil servants who undertook our online survey. With respect to marital status it can be observed that 54.17% of respondents are single, 27.08% are married, 13.08% are currently in a relationships and 4.69% are divorced.

Figure 9: Distribution of respondents by cities

The figure above illustrates 17 different regions in Kazakhstan and how many people from each region have completed the survey. As for the various regions in Kazakhstan, the survey was equally distributed throughout Kazakhstan but as it turned out, more people passed the survey from the Astana and Almaty cities. It is worth mentioning that that at one time a large number of infected with coronavirus was detected in Astana also, but it must be taking into account that these data change over time. In sharp contrast to this the lowest

number of people were from Petropavlovsk. Overall, Karaganda, Shymkent, Kokshetau, Taldykorgan, Aktobe have nearly the same numbers.

Figure 10: Wedding gift groups

* percentage inside represents share of people by particular group

Last but not least is the spending group part of the survey. The open question was "Imagine you are invited to your best friend's wedding. How much would you pay for a gift?" At first glance, you might think there is no connection between the wedding and the impact of the pandemic on people's lives, and many were perplexed at the beginning. People are not willing to talk about their wages, about how much they earn and spend. The question was intentionally constructed in such a tricky way to determine the financial position of people. From the chart above it is seen that the highest number of people are ready to spend from 30000 to 50000 tenge for a gift. Kazakh weddings are known for their scope: it is not surprising to anyone to have a celebration of 300 or even a thousand people. Each guest tries to present respect to the bride and groom, as well as to parents and therefore usually it takes large amounts of money. We have identified that on the average, people are willing to spend around 30000 - 500000 KZT on a gift.

We have analyzed that changes in behaviour does not come from the level of income. Conducted ANOVA test for different expecting wedding gift group showed very high p-values which are insignificant. However we assume that 67% of people of 15000-50000 KZT range are more likely to afford additional spendings. For instance, in this amount range people may buy subscriptions for Netflix, Apple music and other online games.

Results

The pandemic forced people around the world to go through something unique. Using the very first question in our survey, we wanted to determine what kind of associations people have with an unfavorable situation concerning the COVID-19. A total of 848 words and sentences were used. Surprisingly, words such as "Virus", "Coronavirus" and "Quarantine" which were most expected to be seen were rare or did not even appear at all. The coronavirus affects not only politics, the economy in the world and the physical health of people, but mental health is also being impacted.

The results of our study showed that most people answered this open question with the words like "Anxiety", "Uncertainty", "Fear", "Boredom" and "Worry". Overall, the most popular word turned out to be the "Fear" which was used by 7.5% of people 64 times. The word "Anxiety" was used 53 times which makes up 6.3% of people surveyed. 5.2% of people typed 44 times the word "Uncertainty". 37 people have chosen the words "Boredom" and 27 people have chosen the word "Worry" with 4.4% and 3.2% respectively.

Four commonly used words are followed by such words as "Calm" (1.9%), "Sadness" (1.4%), "Fatigue" (1.4%), "Stress" (1.3%), "Panic" (1.2%), "Loneliness" (1.1%), "Crisis" (1%), "Mistrust" (1%), "Laziness" (0.9%), "Apathy" (0.9%) "Self-isolation" (0.9%) and "Hopelessness" (0.7%).

Earning instability, jobs are being lost, a lot of income is not coming, concern for their health and for the health of family members. People are getting more anxious due to uncertainty, they don't know how long they will be in quarantine, they don't know whether they will personally face the coronavirus or not, they will worry about what life will be like after quarantine ends. To be at home constantly is a stress factor in itself. In Kazakhstan, as in all countries of the world, the lockdown affected many types of activities that are familiar to people, their daily way of life and their main sources of livelihood. People experience great stress at work, all the time in a hurry, all the time being involved in different activities.
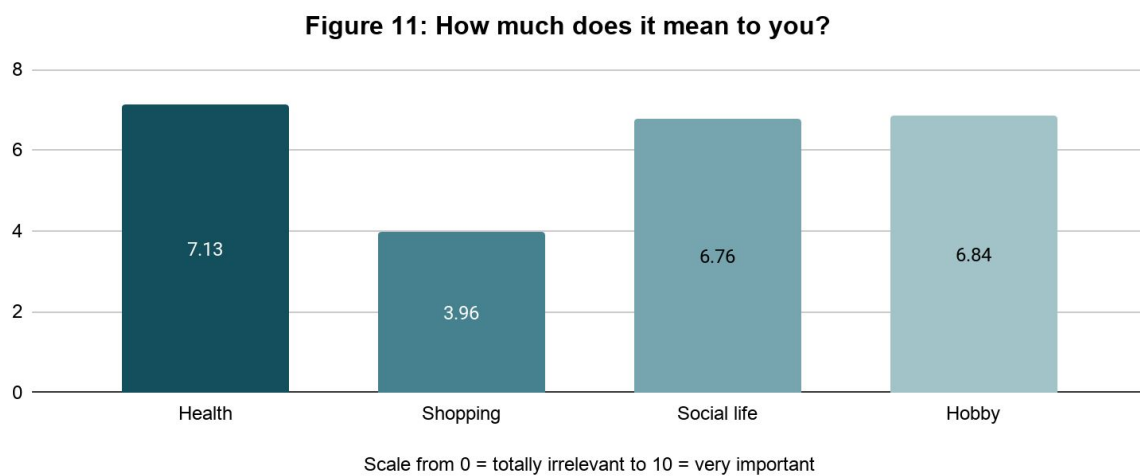
In Kazakhstan society, people are not accepted to think about the phenomenon of mental health. Most Kazakhstan citizens are embarrassed to go to a specialist, because people are afraid of stigma. According to worldpopulationreview.com, Kazakhstan ranks 64th in the world in terms of population and 7th in the number of suicides. It should be noted that people have experienced an increase in anxiety, fatigue, insomnia and depression during the lockdown. As a consequence there is a republican scientific and practical center for mental health under the Ministry of Health of Kazakhstan. Specialists of this center launched a website where citizens can get psychological help for free.

After associations and initial feelings with the help of the second question, we wanted to identify the ways people deal with quarantine. Many people used adjectives and adverbs to describe it. The most commonly used adjectives were "Good" (9%), "Calmly" (5%), "OK" (4%), "Positively" (3%) and "Nothing" (3%). According to the findings, during the self-isolation, people in Kazakhstan tried to distract themselves as much as possible: doing workouts, having stay at home jobs, enjoying hobbies that excites them, paying great

attention to self-development, studying in an online format, constantly communicating with their families and friends, sleeping, eating, do the housework, staying at home most of their time and watching TV shows. Just a couple of people, 1%, wrote that they resorted to drinking alcohol and smoking cigarettes.

In general, in Kazakhstan people during quarantine can be divided into three groups: The first group tries to devote more time to self-development (sports, hobbies, reading, training). Representatives of the second group more often began to relax (watch movies, TV shows, eat, sleep, listen to music). A separate quarantined group spends more time buying things and food online, drinking alcohol and smoking.

The survey had introductory question regarding respondent's attitude to health, shopping, social life and hobby. They assessed the meaningness of each based on scale from 1 to 10.

Figure 11: How much does it mean to you?

Scale from 0 = totally irrelevant to 10 = very important

The figure above shows the importance of health, shopping, social life and hobby for citizens of Kazakhstan in average. First of all, people care about their health, social life and hobby equally. Shopping is less meaningful for respondents. Apparently, people are not addicted to buy some unusual and luxury things. They buy only things that are really necessary for them.

Section 1: Habits

In this section people were asked about changes in their personal habits. Lower value in scale is 0 - "never", while upper is 10 - "all the time". Respondents reflected how they changed before and during governmental regulation took place. Most of countries declared state of emergency for making lockdown, while Belarus and Sweden decided to resist lockdown.

Figure 12: How often did you do it BEFORE and AFTER the governmental regulation?

Scale from 0 = never to 10 = all the time
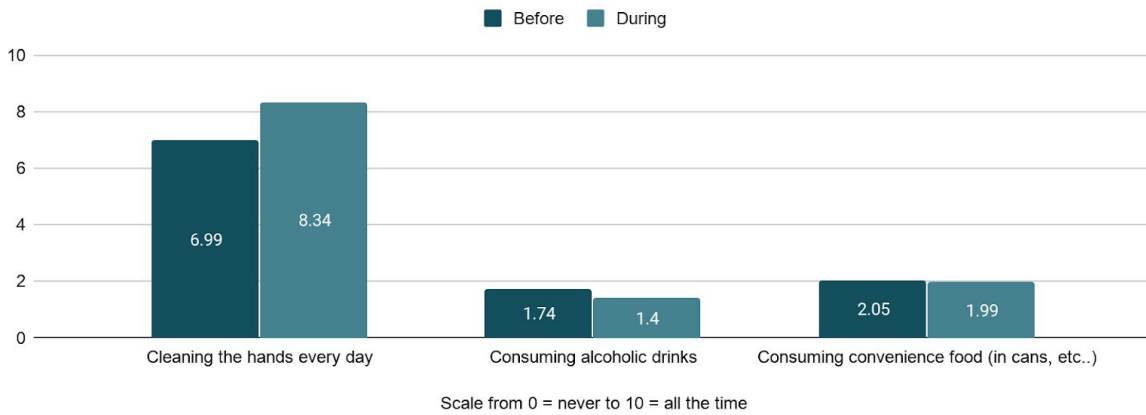
According to the results obtained, people started to wash their hands more frequently than they used to. This happened due to recommendation of World Health Organization and Ministry of Health of the Republic of Kazakhstan. People started to buy more sanitizers, cleaning and personal hygiene remedies. It can be also explained by official statistical data mentioned before. Price of antiseptics and sanitizers has grown up dramatically. High demand lead to deficit of them. During the lockdown consumption of alcohol decreased, while consumption of convenience food remained at the same level. Those products had insignificant changes in price, however results of survey demonstrated that people did not drink more during lockdown.

Pearson Correlation with Age	Correlation coefficient (Corr)	Significance level (p)	Number of respondents (N)
Consuming alcoholic drinks before	.14	.006	384
Consuming alcoholic drinks during	.22	< .001	384

Correlations and paired T-Test were conducted using PSPP in order to check if variables have a coherence between each other. The age was taken as a variable so we decided to take a look if the changes in everyday life (that were affected by pandemic) depend on age of the citizens or not. We decided to illustrate correlations with only reasonable p-values because in other cases it can be just a function of a random sampling error. P-value demonstrates whether statistical hypothesis is significant or not. The threshold p-value <.05 explains event that is not caused by chance. The lower that value the stronger reasoning of conclusions. (Wright, 1992)

According to our results, alcohol consumption before and during the lockdown shows a positive correlation with age and in both cases it shows that correlations are highly significant. The isolation did not dramatically increased the consumption of alcohol and age played a role: the older a person was, the more likely he was to drink alcohol. It has to be noted that in Kazakhstan you cannot buy or drink alcohol if you under the age of 21.

As for alcohol men and women drank alcohol basically with the same prevalence (M_{fem} 1.73= (SD = 2.34) M_{male} = 1.75 (SD = 2.35). During the lockdown the sharp decrease in alcohol consumption can be observed in both genders (M_{fem} = 1.33, M_{male} = 1.52). Women showed least interest while being self-isolated. In Kazakhstan, during the quarantine period, a significant volume of production and sales of alcoholic beverages was not noticed.

The final step of data gathering was Analysis of Variance (ANOVA Test) to compare several groups which in our case is people's occupation, age group, gift group and place of living.

Table 1: ANOVA test results for consuming alcohol before and during pandemic

Consuming alcoholic drinks	age group	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
before	below 18 years	54	.57	1.95	.27	.04	1.11
during	below 18 years	54	.19	1.03	.14	-.10	.47
before	18 - 24	163	1.82	2.39	.19	1.45	2.19
during	18 - 24	163	1.20	2.19	.17	.86	1.53
before	25 - 39	92	1.97	2.30	.24	1.49	2.44
during	25 - 39	92	1.80	2.67	.28	1.25	2.36
before	40 - 49	57	2.09	2.30	.30	1.48	2.70
during	40 - 49	57	2.44	2.89	.38	1.67	3.21
before	50 - 70	18	2.22	2.46	.58	1.00	3.45
during	50 - 70	18	1.50	1.72	.41	.64	2.36

Consuming alcoholic drinks		Sum of Squares	df	Mean Square	F	Sig. level (p)
before	Between Groups	90.18	4	22.54	4.25	.002
	Within Groups	2010.26	379	5.30		
before	Between Groups	163.16	4	40.79	7.74	< .001
	Within Groups	1996.88	379	5.27		

Things are stable with alcohol since we have provided the data that Kazakhstan demonstrated a decrease in alcohol consumption. Teenagers under 18 years old showed a sharp decline from .57 mean to .19 mean. Such data is explainable: the law allows people of 18 to 21 to consume and buy alcoholic beverages with a presence of a person who is 21 years of age or older. Anyone over the age of 21 can buy or drink without any problem. Teenagers also spent most of the time in lockdown with the families: alcohol consumption decreased in the presence of parents and other family members. Equally the mean numbers of 18-24, 25-39 and 50-70 age groups indicate reduction in total alcohol use. Night clubs, bars, karaoke, cafe and restaurants were closed to prevent the spread of COVID-19 but these places are common places for people to gather together and drink. It is intriguing to

note that among other age group for the 40-49 years old people it is other way around. The mean before the lockdown is 2.09 and during the lockdown it rose to 2.44 mean.

Section 2: Shopping behaviour

This part is aimed to reveal changes in shopping behavior of consumers. It is important to know how often people were buying products online via Amazon, Ebay etc, from online shops from Supermarkets and Electronic markets and ordered food online before or during lockdown.
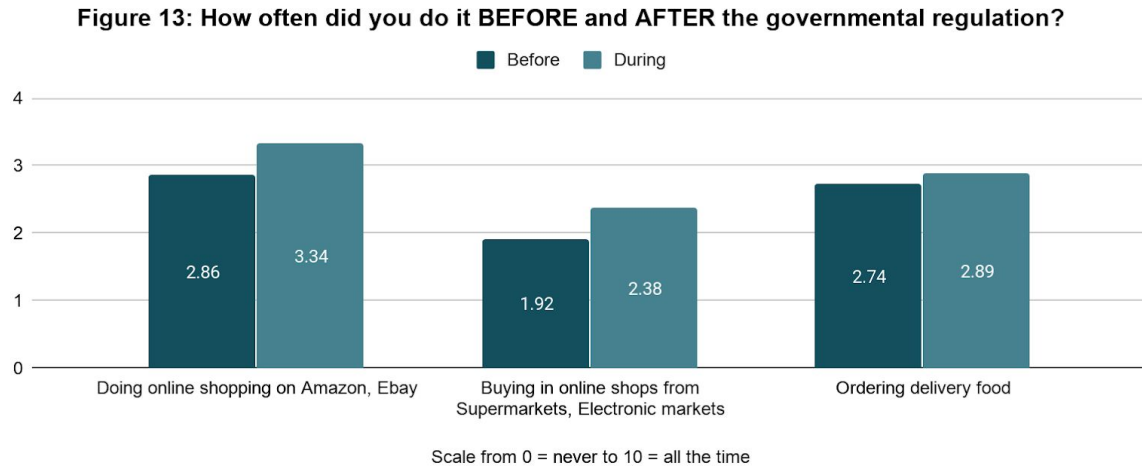
Figure 13: How often did you do it BEFORE and AFTER the governmental regulation?

Scale from 0 = never to 10 = all the time

Pearson Correlation with Age	Correlation coefficient (Corr)	Significance level (p)	Number of respondents (N)
Ordering delivery food before	-.21	< .001	384
Ordering delivery food during	-.14	.007	384

In this instance, there is a weak but significant correlation before and during lockdown regarding the delivery food ordering. The table above demonstrates that younger people have a frequent tendency to ordering take away food while the older the person is the less likely he or she orders take away food. Given the fact that almost all restaurants and cafes were closed during the quarantine, food delivery services have become the only bridge between restaurants and their customers during the self-isolation in Kazakhstan especially for younger people who often go out to restaurants and cafes in their leisure time.

When it comes to purchases mainly online then according to the final results women were the most frequent online buyers during the lockdown towards ordering food directly from supermarkets and women also have ordered take away food much more than men but the ratio was also the same before the lockdown. Nevertheless according to our results, referring to online shopping males in Kazakhstan have showed a bigger mean number than women before and also during the quarantine (During: M_{fem} = 3.29 M_{male} = 3.49; Before: M_{fem} = 2.79 M_{male} = 2.99)

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Table 2: ANOVA test results for Buying in online shops from Supermarkets, Electronic markets before and during pandemic

Buying in online shops from Supermarkets, Electronic markets	occupation	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
before	student	164	1.53	1.95	.15	1.23	1.83
during	student	164	1.72	2.31	.18	1.36	2.08
before	freelancer	16	2.13	2.16	.54	.98	3.27
during	freelancer	16	2.13	2.73	.68	.67	3.58
before	clerk	86	2.49	2.47	.27	1.96	3.02
during	clerk	86	3.29	3.02	.33	2.64	3.94
before	civil servant	12	2.83	2.69	.78	1.12	4.54
during	civil servant	12	3.00	2.73	.79	1.27	4.73
before	retired	6	2.83	3.13	1.28	-.45	6.11
during	retired	6	4.67	3.72	1.52	.76	8.57
before	other	100	1.88	2.11	.21	1.46	2.30
during	other	100	2.49	2.63	.26	1.97	3.01

Buying in online shops from Supermarkets, Electronic markets		Sum of Squares	df	Mean Square	F	Sig. level (p)
before	Between Groups	68.51	5	13.7	2.92	.013
	Within Groups	1775.15	378	4.70		
before	Between Groups	181.1	5	36.22	5.28	< .001
	Within Groups	2590.9	378	6.85		

Here we have noticeable data as for online purchases from supermarkets and electronic markets. Students were the only one who started to use less of such services during the quarantine: it was 1.72 mean before and 1.53 mean during. No changes have happened to freelancers. They used this service with the same frequency as before therefore the mean number is the same - 2.13. Clerks, civil servants and others in total illustrated growth in the usage of such services. Retired were the most frequent users of such online services. Before the lockdown the mean was only 2.83 but after that it reached the maximum of 4.67. COVID-19 definitely threatens the life and safety of the people but elderly people are more vulnerable to this coronavirus disease. Elderly people have the highest death rate by age group. It might be a reason why older people often began to order food from supermarkets and things from electronics: since they are at the risk to be infected by coronavirus they resorted to such measures to prevent themselves from the virus.

Section 3: Social activities

Social activities of people have dramatically changed. Real-live communication with friends was limited during the lockdown. However, friends communicate with each other via popular social networks, video-chats and messengers. According to the results obtained, people reduced their social activities. Use of social networks have increased twice, while online dating apps were not popular.

Despite the fact that social activities reduced by 50% it was not decreased at all. People were communicating more online but the lack of real live communication have affected afterwards. After the cancelation of the lockdown people immediately started to gather in a large groups. As a result the situation is getting worse.

Nowadays the centers of infection are focused within the families. One person which contacted people before may infect other family members without knowing that. In such case the infected person should be hospitalized otherwise self-isolated.

Figure 14: How do you rate it BEFORE and AFTER the governmental regulation?

Scale from 0 = never to 10 = all the time
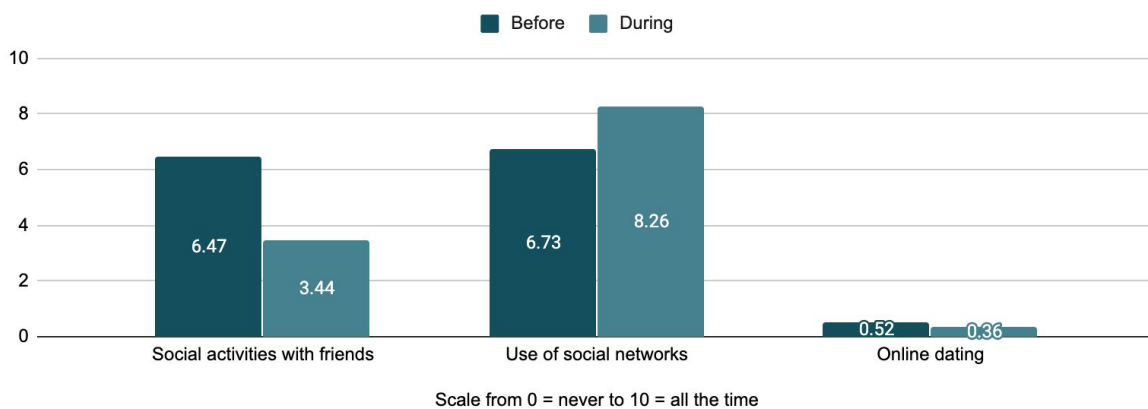
Overall conclusion based on data received is people changed their minds and do not waste their time. They are spending more time with families and prefer to communicate with friends via IT applications.
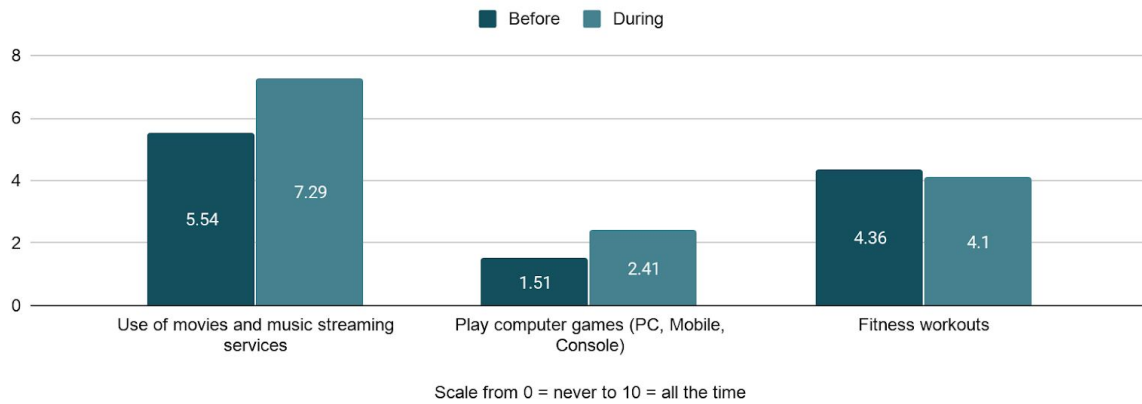
Pearson Correlation with Age	Correlation coefficient (Corr)	Significance level (p)	Number of respondents (N)
Use of social networks before	-.11	.024	384
Use of social networks during	-.19	< .001	384

Concerning the usage of social media it is clear that it was increased but among young people. Age contributes to the social media consumption: younger age groups are showing a tendency towards using a wider variety of social media. Since lot of activities were permanently stopped and everyone was forced to stay indoors people tried to connect and entertain themselves and the easiest way to do so is with social media networks. Younger people started to spend longer times on social media due to coronavirus outbreak.

Section: Hobbies

Hobbies play important role in the self-development of humans. This free time might be spent for useful and interesting activities. In this survey, we aimed to reveal changes in hobbies of Kazakhstan's citizens.

Figure 15: How your hobbies have changed BEFORE and AFTER the governmental regulation?

Scale from 0 = never to 10 = all the time

People changed their attitude towards movies and music. While playing computer games on PC, Mobiles and Consoles increased twice. During the lockdown people did not care about their health condition and did not do fitness workouts.

Pearson Correlation with Age	Correlation coefficient (Corr)	Significance level (p)	Number of respondents (N)
Use of online movies and music services before	-.28	< .001	384
Use of online movies and music services during	-.24	< .001	384

As in the case with the social media, movies and music are also a form of online entertainment and young people are more likely to entertain themselves in this way. 2-tailed significance value in this case < .001 which means that correlation are highly significant. In total, people increased film screening and listening to music during the lockdown.

Variable	Gender	Number of respondents (N)	Mean	Std. Deviation	S.E. Mean
Use of movies and music streaming services before	male	138	5.09	2.55	.22
	female	246	5.78	2.59	.17
Use of movies and music streaming services during	male	138	6.89	2.59	.22
	female	246	7.51	2.53	.16
Play computer games (PC. Mobile. Console) before	male	138	2.50	2.75	.23
	female	246	.96	1.85	.12
Play computer games (PC. Mobile. Console) during	male	138	3.68	3.62	.31
	female	246	1.70	2.81	.18

Variable	F	Sig.	t	df	Sig. (2-tailed)
Use of movies and music streaming services before	.15	.7030	-2.52	382	.0120
Use of movies and music streaming services during	.07	.7870	-2.27	382	.0230
Play computer games (PC. Mobile. Console) before	43.3	< .001	6.55	382	< .001
Play computer games (PC. Mobile. Console) during	34.96	< .001	5.98	382	< .001

When considering movies and music females were the most who enjoyed watching movies and listening to music with the 7.51 mean and with the high significant level whilst mean for men is 6.89. We can say that the mean difference is -0.62.

Speaking of computer games, men played more computer games during the lockdown than before and more frequently than women M_{fem} = 1.70 (SD = 2.81) M_{male} = 3.68 (SD = 3.62) . In Kazakhstan computer games are popular type of entertainment or even hobby among males of different ages. This is a great way to relax, does not require any physical activity and copes with boredom, which was very important during quarantine.

It should be remembered that there are more females than males in Kazakhstan according to the latest statistics and more females have undertaken this survey therefore research results show a large number of women in particular cases.

Figure 16: ANOVA test for use of online movies or music services before and during pandemic by respondents' occupation
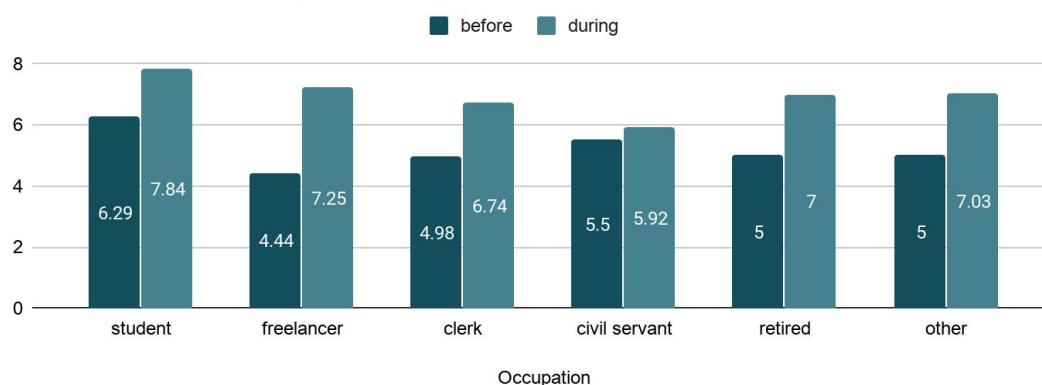
Use of movies and music streaming services		Sum of Squares	df	Mean Square	F	Sig. level (p)
before	Between Groups	169.07	5	33.81	5.32	< .001
	Within Groups	2404.42	378	6.36		
during	Between Groups	105.41	5	21.08	3.31	.006
	Within Groups	2411.08	378	6.38		

It is clearly seen that people started listen to music and watch movies online much more than it was before. Pandemic affected this situation, because people needed to entertain themselves on a daily basis to cope with the boredom. ANOVA test was conducted in order to understand how people from different occupation groups have changed their behavior regarding media entertainment. Freelancers listened to music and watched films much more than other professions representatives. Students, clerks, retired people and other citizens also increased their interest in such entertainment, except civil servants. Even though they have started to watch movies and listening to music more,the mean difference is small in comparison with other professions representatives (5.50 before and 5.92 after)

Conclusions and recommendations

COVID-19 pandemic changed the world mind, it helped truly understand what exactly is important to each human. Definitely it allowed to identify, which things cause higher interest for person during such unusual period. Conducting this research during pandemic crisis recognized overall situation in two time frames as before and during.

First of all, people become more careful about their health. It is observed by survey results and statistical data on prices for medicine. Demand for antiseptics, sanitizers and vitamins increased significantly. Taking into account current situation, medicine producers can increase their advertisements on such products only with use of digital marketing technologies. Due to restriction to be outside of home for a long time, advertising on billboards is not appropriate choice.

Secondly, consumption of alcoholic drinks before pandemic was slightly higher than during. Taking into account the fact that advertisement of alcohol is restricted in Kazakhstan and allowed to be sold only for people older that 21 years, there is no way for promoting it today. The downgrade of alcohol consumption is a good indicator, even because of stress and boring daily routine during pandemic, people came up without drinking more. We can assume that complement products such as snacks, fries and chips are demanded less.

Thirdly, there is positive trend in digitalization. According to the results of the survey, people started to buy more via online marketplaces, online shops of electronics and delivery services. Therefore, it is proper time to increase marketing expenses via digital tools such as Instagram, Google Adwords, YouTube and Yandex Advertisement. People of all ages increased their use during pandemic, however, there is negative correlation with age. It gives the explanation that target audience of them are females between 18 and 39 years, which mostly make purchases. Online delivery services have the most appropriate time to earn and increase their share on the market.

Pandemic reduced real life communication almost by 50%, while communication via social media increased. As statistics shows us the level of interest to WhatsApp and Telegram has grown. Different type of products may be promoted in relevant Telegram channels that are extremely popular today among Kazakhstan users.

Moreover, people changed their preferences and increased their interest in use of movies and music streaming services. Due to strict lockdown actions and increase of free time share people had more time for entertainment. Platforms such as Netflix caused high interest by providing new content with high quality. Such situation demonstrated that people in Kazakhstan are more likely to buy online subscriptions today. Before it was difficult to attract people to this kind of online services.

Appendix

Survey questions
1. How do you feel about the ongoing corona pandemia? Tell us three keywords.
2. How do you personally deal with this crisis? Tell us three keywords.
3. How much do you care about your own health? Rate from 0 to 10.
4. How much does shopping mean to you? Rate from 0 to 10.
5. How much does social life mean to you? Rate from 0 to 10.
6. How much does hobby mean to you? Rate from 0 to 10.
7. How often did you clean hands every day BEFORE the governmental regulations? Rate from 0 to 10.
8. How often did you clean hands every day DURING the governmental regulations? Rate from 0 to 10.
9. How often did you consume alcoholic drinks BEFORE the governmental regulations? Rate from 0 to 10.
10. How often did you consume alcoholic drinks DURING the governmental regulations? Rate from 0 to 10.
11. How often did you consume convenience food BEFORE the governmental regulations? Rate from 0 to 10.
12. How often did you consume convenience food DURING the governmental regulations? Rate from 0 to 10.
13. How often did you do online shopping (Amazon, Ebay,etc) BEFORE the governmental regulations? Rate from 0 to 10.
14. How often did you do online shopping (Amazon, Ebay, etc) DURING the governmental regulations? Rate from 0 to 10.
15. How often did you buy in online shops from Supermarkets, Electronic markets, DIY's BEFORE the governmental regulations? Rate from 0 to 10.
16. How often did you buy in online shops from Supermarkets, Electronic markets, DIY's DURING the governmental regulations? Rate from 0 to 10.
17. How often did you order delivery food BEFORE the governmental regulations? Rate from 0 to 10.
18. How often did you order delivery food DURING the governmental regulations? Rate from 0 to 10.
19. How would you rate your social activity with friends BEFORE the governmental regulations? Rate from 0 to 10.
20. How would you rate your social activity with your friends DURING the governmental regulations? Rate from 0 to 10.
21. How often did you use social media BEFORE the governmental regulations? Rate from 0 to 10.
22. How often did you use social media DURING the governmental regulations? Rate from 0 to 10.
23. How often did you use online dating portals BEFORE the governmental regulations? Rate from 0 to 10.
24. How often did you use online dating portals DURING the governmental regulations? Rate from 0 to 10.
25. How often did you use movies and music streaming services BEFORE the governmental regulations? Rate from 0 to 10.
26. How often did you use movies and music streaming services DURING the governmental regulations? Rate from 0 to 10.
27. How often did you play computer games (PC,Mobile, Console) BEFORE the governmental regulations? Rate from 0 to 10.
28. How often did you play computer games (PC, Mobile, Console) DURING the governmental regulations? Rate from 0 to 10.

29. How often did you do fitness workouts BEFORE the governmental regulations? Rate from 0 to 10.
30. How often did you do fitness workouts DURING the governmental regulations? Rate from 0 to 10.
31. How much do you agree with this statement: I like trying out new things. Rate from 0 to 10.
32. How old are you?
33. What is your gender?
34. What is your marital status?
35. Which city do you live in?
36. What is your occupation?
37. Imagine you're invited to your best friend's wedding. How much would you pay for a gift?

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