

Impact of COVID-19 on Personal Life: an Analysis Based on the Data Centric Approach

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Abstract: COVID-19 is the most used and significant word in this year. It has taken many lives, created fear among people and changed people's and country's perspective and decision. The virus has kept people isolated in their homes, and borders have been blocked. The third wave of Covid-19 variants has finally come to an end. Based on an online questionnaire, this paper investigated the impacts of Covid-19 on people's lives for four essential daily necessities: education, social, economic, and psychological. As the pandemic interrupted the normal world's circumstances, we tried to determine the association between various factors related to Bangladeshi people in this study. This research is essential because the findings help stakeholders and decision makers decide what to do in the sectors of education, the economy, social, and psychology. This study introduces a new interestingness measure, the "IM-Score," which aims to discover the association between various parameters. Covid-19 impedes 25.6 percent of educational factors, 23.5 percent of social concerns, 25.9 percent of economic life, and 25.0 percent of psychological factors among the four most basic demands of people's daily lives, according to the findings. Finally, we concluded that people are concerned about the period of online classes, tuition expenses, financial situation, social interaction, and mental health.

Keywords: Covid-19, Virus, lock-down, Pandemic, Bangladesh, Impact, Education, Social Impact, Economy, Psychology.

I. INTRODUCTION

The COVID-19 i.e., Corona Virus 2019 caused by severe acute respiratory syndrome corona virus 2(SARS-COVID). It is first identified in December-2019 in Wuhan, Hubei, china. WHO declared COVID-19 is a pandemic. This pandemic is increasing day by day over the whole nation. The total number of affected people in COVID-19 is also increasing day by day. More than 55 million cases have been reported with more than 1.32 million deaths due to COVID-19, as of 17 November 2020. In Bangladesh, COVID-19 is first identified in 8 March-2020. In Bangladesh, confirmed case of COVID-19 is 401,586, where 5838 have died and 318,123 have recovered after treatment. Total 551,865 have been quarantined both institution and home. In this paper, we mainly focus COVID-19 impact in Bangladeshi people's personal life. Our personal life is badly affected by COVID-19. COVID-19 creates many problems in our normal life leading. Due to COVID-19, we are staying home. We are always tensed about death of myself and loss of our relatives. If we are affected it, we are also tensed that we will get or won't get proper medical facility, as our country has lacking's of medical facility and proper treatment. We are also tensed

about that, when we will back to our normal life. This creates psychological problems. When we want to go out of home, we are wearing mask and gloves. Students are called for online classes. Many of the students dislike online class especially practical class. Many of the people of our country are poor, as a result they have no ability to pay the bill of internet.

Students are so much hampered due to COVID-19. Many of the students feel sick for looking monitor long period. Due to COVID-19, especially private sectors are facing serious economic crisis. COVID-19 lockdown creates educational gap in our education system. We are working remotely due to COVID-19. Due to COVID-19 many people loss job, as a result they have faced economic crisis. Many people are forced to leave Dhaka (capital of Bangladesh), due to economic crisis. In Bangladesh, workers are so much affected. Bangladesh is an overpopulated and being a developing country, most of the people are workers, among the workers, many of the people have little or no education, and most of the rural background, resulting their situation is very serious. To protect ourselves, we are maintaining social distances. We couldn't communicate face to face with our neighbor's in COVID-19 pandemic. This is so much pathetic, our relatives are dying but we cannot go to see their dead body. Actually in this paper, we will try to find out the problems in four sectors: psychology, education, economy and social which can be impactful for the country.

II. LITERATURE REVIEW

COVID-19 creates economic crisis all over the world. Researchers are trying to present economic impact due to COVID-19 in both developed and developing countries (QAI-Baidhani, 2020). They selected eight developed economies (Australia, Canada, Chile, France, Germany, Italy, South Korea and Taiwan) and five developing economies (Argentina, Brazil, China, Malaysia and Mexico) for analyzing economic impact due to COVID-19. They classified countries as per HDI of the United Nations. They showed the economy of the countries that affected most by the COVID-19 from eight developed and five developing countries. They noted changing rate of GDP in 2020 of the sample countries. The countries that have highest GDP changes are Mexico and Argentina, both are developing economies(QAI-Baidhani, 2020).Dr. Usman W. Chohan predicts the economic impact of COVID-19 in case of Pakistan(Chohan, n.d.).They displayed GDP by expenditure and predicted GDP declines for the Pakistan economy. They viewed expenditure on GDP at

Current Prices with Proportions, household consumption (food and beverages, housing/water/utilities, Transport, health, communication, recreation and culture, education, restaurants and hotels, others) monthly breakdown, Government corona relief package breakdown, contribution of various groups in total imports and exports. Then they analyzed scenario of Pakistan economy and finally told that FY20 declines will be massive, but faster global and local recovery rates might spur a resumption of economic activity in FY21 (Chohan, n.d.). Dr Badrud Doza et al analyzed psychosocial and socio-economic crisis in Bangladesh due to covid-19 pandemic (Bodrud-Doza M & MM, 2020). They used perception based online questionnaire and collected data from 18 years and/or older Bangladesh citizen. They collected data from 1066 citizens of Bangladesh. They analyzed data using three statistical techniques, first one is Linear Regression Analysis (LRA), second one is Principal Component Analysis (PCA) and third one is Hierarchical Cluster Analysis (CA). Before applying the PCA, Kaiser-Maier-Olkin (KMO) and Bartlett's sphericity tests were applied to confirm the necessity of this analysis. There were six category and created total forty six questions on six category. There were five questions on Mental Health Condition, ten questions on Healthcare System of Bangladesh, seven questions on the governance and the political issues, eleven questions on the socio economic issues, seven questions on the immediate emerging issues and six questions on the enduring emerging issues. Their answer option was five: strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. They also calculated mean, standard deviation, skewness, kurtosis and corrected item-total correlation. After performing analysis, finally they showed positive association and negative association between different categories using range of probability (Bodrud-Doza M & MM, 2020).

Tom Kirchmaier and Carmen Villa Llera analyzed poverty and crime, during the lock-down period and prior the lock-down period of COVID-19 (Kirchmaier & Villa-Llera, 2020). They mainly noticed the situation of poverty and crime of England and Wales. They performed analysis based on publicly available data. They collected Monthly unemployment and yearly population estimates from the Office of National Statistics (ONS), covering the time period from January 2017 to July 2020. They also collected monthly crime data from all forces in the UK from Police UK from January 2011 to July 2020. They also included claimant data from 2017 to July 2020. Finally they concluded that during lockdown period that was from March to May 2020, crime was lower except for Anti-social Behavior and Drug offences. In the case of anti-social behavior, the increasing rate was 40 percent during lock-down and in the case of drug offences, the increasing rate was 4 percent during lockdown (Kirchmaier & Villa-Llera, 2020). Elisa Bin et al analyzed the behaviors between virtual and physical activities during COVID-19 pandemic period (Barkley JE, 2020). The purpose of their work was to find out behavioral changes during COVID-19

period and also find out behavioral changes that may be kept after COVID-19 period. They created online questionnaire and received 781 responses. They mainly collected data from three countries: Sweden (28.9%), Italy (53.6%), India (8.8%) and other countries (8.7%). Female was 51.4%, 67.1% were employed and 74% were highly educated people. The survey was divided into six sections, first was change in travelling behavior to perform daily activities (commuting, grocery shopping, non-grocery shopping, order take away food, eat out, visit friends and family, go out for entertainment/hobbies, physical activities), second was change in internet usage (entertainment, personal call, work or study, work or study meetings), third was change in online shopping behavior (grocery and non-grocery), fourth was perceived safety in performing daily activities (travelling by public transport, travelling by car, visiting stores, being at the workplace or school, going to restaurants, pubs and cafes, going to the gym, spending time outside, receiving home deliveries), fifth was intention of keeping the new habits (travel and commuting, grocery and non-grocery shopping, work or study, handle meetings at work or school, free time, physical activities) after the pandemic and six was personal information. Fabian G. Mahundu analyzed schools closure and student's e-learning options in Tanzania during COVID-19 pandemic (Mahundu, 2020). Their research purpose was to find out the learning options for the students and the role of guardians during COVID-19 pandemic period. They used two techniques: one telephone interviews and another open ended questions using google forms. There was total fifty participants where twenty seven were fathers, thirteen were mothers and ten were others (sister, grandmother and uncle). They identified many learning options through the research and also shared LMS, portals, websites and blogs best for students learning during COVID-19 pandemic period (Mahundu, 2020). Researchers quantified the effects of social distancing on the spread of COVID-19 (Bodrud-Doza, 2020). They studied the interplay between the social distancing and the spread of COVID-19 disease. They performed an agent based simulation model by using Netlogo simulation software to quantify the effect of social distancing on the spread of COVID-19 disease. After analysis, they concluded that applying and increasing social distancing policy levels led to significantly reduced infection rates, which result in decreasing deaths (Bodrud-Doza, 2020). The Researchers are trying hard and soul to discover COVID-19 vaccine. They analyzed public health and economic value of COVID-19 vaccine in the United States (Kohli, Maschio, Becker, & Weinstein, 2020). Their model was Markov Cohort model that was used to compare COVID-19 related direct medical cost and deaths in the United States with versus without implementation of a sixty percent efficacious vaccine. They showed that their model was cost effective. Maximum works are based on statistical analysis.

The aim of this research work is to find out the problems through analysis of data and then mathematical analysis is also used to find the way of reducing the problems.

III. PROBLEM FORMULATION

Association rules

Association rules analysis is a technique to uncover how items are associated to each other. Agrawal, Imienlinski and Swami (R.Agrawal & Swami., 1993) introduced the problem of association rule mining in this way:

I = set of items D = set of transactions Rule:

$$X \rightarrow Y$$

X , Y is called antecedent and consequent respectively. The technique of rule generation is A priori algorithm. Details of priori algorithm in Appendix A.

Interestingness Measures

Apart from Support and Confidence association techniques, there are about 100 interestingness measures. We will work with 4 more correlated interestingness measures.

Lift: Lift measures how many times more often X and Y occurs together than expected if they are statistically independent. A lift value of 1 indicates independence between X and Range: $[0,1]$.

$$\text{Lift}(X \rightarrow Y) = P(X \cap Y)/P(X) P(Y)$$

All-confidence: All-confidence means that all rules which can be generated from itemset X have at least a confidence of all-confidence. It can be said as minimum confidence of two association rules. Range: $[0, 1]$.

$$\text{All - confidence}(X \rightarrow Y) = \min \{P(X|Y), P(Y|X)\}$$

Kulczynski: Kulczynski Average of two confidence measure. Range: $[0, 1]$.

$$\text{Kulczynski}(X \rightarrow Y) = 1/2(P(X|Y) + P(Y|X))$$

Cosine: Cosine harmonized Lift Measure. Range: $[0,1]$.
 $\text{Cosine}(X \rightarrow Y) = \sqrt{P(X|Y) P(Y|X)}$

IV. PROPOSED APPROACH

We have shown the scenario and described the interestingness measures. But the problem with the interest measures is that they don't provide the same value.

That is why, we introduce novel correlated measure IM-Score.

IM-Score:

IM-Score is the average of All-confidence, Kulczynski and Cosine.

$$\text{IM - Score}(X \rightarrow Y) = \text{AVG}\{\text{All - confidence}(X \rightarrow Y), \text{Kulczynski}(X \rightarrow Y), \text{Cosine}(X \rightarrow Y)\}$$

Work Flow

First of all, set of rules are generated based on the value of Support and Confidence of A Priori Algorithm. Then, described interestingness measures along with our IM-Score we extract significant rules based on demographic

features where the rules are explainable and will create insights. Workflow is shown in Figure 1.

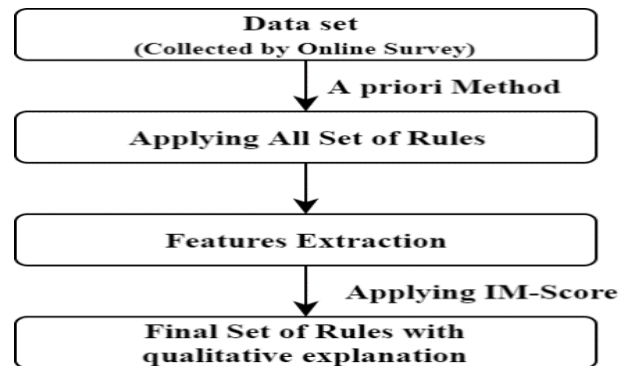


Figure 1: Proposed approach with IM-Score working flow

V. RESULT AND DISCUSSION

This section describes the evaluation and analysis of a survey conducted on Covid -19 impact on personal life regarding different fields like as education, economy, social and psychology. We have evaluated and analysed on online based survey of various ages persons.

Dataset details:

A dataset for our evaluation is created based on the online survey. In this poll, 680+ persons both male and female of age limit 19-30 participated. We collect information using the questionnaire approach, with 30 questions on four fields(education, social, economy and psychology) supplied through Google form for user feedback. Each person is asked total 30 questions where 10 questions were educational, 5 questions were economy, 5 questions were social and 10 questions were psychology related. The questions address the person impact on different fields and collect information of personal life affection due to Covid-19 pandemic. Details of the questionnaires in Appendix A.

Analysis:

A priori algorithm is applied in the created dataset using python apyori package. After that, correlation analysis using different measures and IM-Score for different features are done with hand-coded python. We have found out the top three rules based on traditional apriori algorithm using Support and Confidence. After finding the rules, we have analyzed the gender and age characteristics of the rules and also find the correlation of the rules using our proposed measure IM-Score. We have evaluated interestingness for the Education, Economy, Social and Psychology based on the top three rules. Details of rules of different field are shown in Appendix B. Field impact (Education, Economy, Social and Psychology) has evaluated for the six interestingness measurements (Conf., Lift, All-Conf., Kul, Cosine and IM-Score). Average score of three rules of interestingness measure for different fields are shown in Appendix C. Total score of interestingness for different fields are shown in fig: 2.

Our proposed IM-Score provides better score than others measurements.

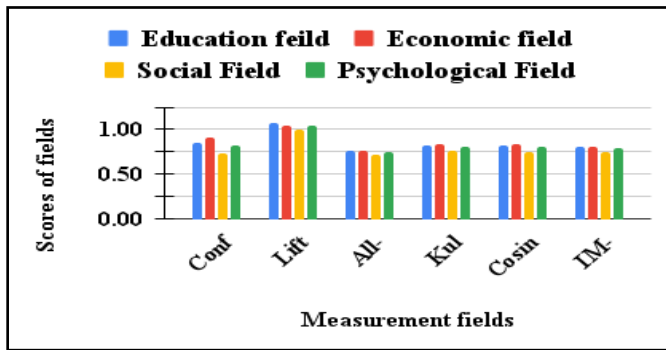


Fig:2 Score of different fields

Total score of interestingness for different ages people are shown in fig: 3. Our proposed IM-Score provides better score than Confident and All-Confident and overall better measurements.

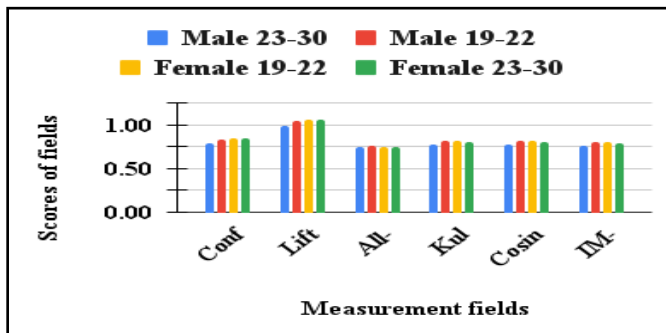


Fig:3 Score for various ages

We also have evaluated the impacted of different fields based the interestingness score. The field impact is shown in Fig: 4. Our evaluation said that Economic field is most impacted and Social field is less impacted due to Covid-19 situation. Finally we have evaluated the impacted on various ages person (male and female) based the interestingness score. The impact on person is shown in Fig: 5. Our evaluation said that Female person (age 19-22) is most impacted and male person(age 23-30) is less impacted due to Covid-19 situation.

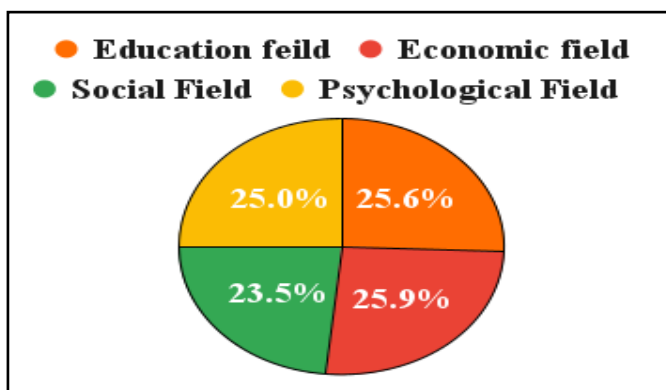


Fig:4 Field impact

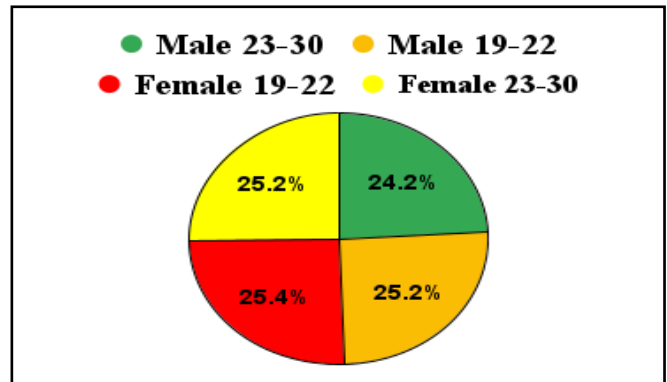


Fig:5 Age impact

VI. CONCLUSION AND FUTURE SCOPE

The impact of COVID-19 is brightly affected on our daily life especially in the four sectors-four sectors - Education, Economy, Social and Psychological issues. It has changed our normal life living schedule, destroyed economic structure especially disruption in education field in Bangladesh. The education of 37 million children in Bangladesh is impacted as a result of the COVID-19 epidemic. We have introduced new measure IM-Score which finds the correlation of rule and find the ambiguity of rule, with this measure, we can improve traditional a priori algorithm and find out more insights with qualitative description. The insights that we have found like the people are concerned about the interactive-ness of online class, tuition fee management, financial degradation, lack of equivalency of social interaction of virtual application and consciousness of hygiene. From the insights, the related organizations and government can take actions and design things that can be helpful to tackle with COVID-19. Another insight is that Male 23-30 are not fully conscious of COVID-19 and they are not following many basic rules. We have find interestingness measure to evaluate the impact of covid-19 on various fields and persons of different ages. Our future work will be to engage more people with our survey so that we can get more insights from the answer. We will improve the methodology based on different demographic behaviors.

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Appendix A

A priori Algorithm(R.Agrawal & Swami., 1993)

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1)  $L_1 = \{\text{large 1-itemsets}\};$ 
2)  $\bar{C}_1 = \text{database } \mathcal{D};$ 
3) for (  $k = 2; L_{k-1} \neq \emptyset; k++$  ) do begin
4)    $C_k = \text{apriori-gen}(L_{k-1});$  // New candidates
5)    $\bar{C}_k = \emptyset;$ 
6)   forall entries  $t \in \bar{C}_{k-1}$  do begin
7)     // determine candidate itemsets in  $C_k$  contained
       // in the transaction with identifier  $t.TID$ 
        $C_t = \{c \in C_k \mid (c - c[k]) \in t.\text{set-of-itemsets} \wedge$ 
          $(c - c[k-1]) \in t.\text{set-of-itemsets}\};$ 
8)     forall candidates  $c \in C_t$  do
9)        $c.\text{count}++;$ 
10)    if ( $C_t \neq \emptyset$ ) then  $\bar{C}_k += \langle t.TID, C_t \rangle;$ 
11)    end
12)    $L_k = \{c \in C_k \mid c.\text{count} \geq \text{minsup}\}$ 
13) end
14)  $\text{Answer} = \bigcup_k L_k;$ 

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Figure 2: A priori Algorithm(R.Agrawal & Swami., 1993)

Survey Questions:

Education related questions:

- Do you agree that education system is so much hampered due to corona virus?
- Is it easy to do online class continuously for 4 hours or more?
- Do you think the online class is as effective as the main class for the students?
- Do you think that next time you will be able to return to normal life and take classes and exams on campus?

- Is it possible to take classes in a normal way with safety?
- Do you think that both teachers and students feel comfortable teaching and learning in online?
- Is it easy to notice the inattentive students?
- Do you think that educational institutions especially private institutions are being economically damaged?
- Is the semester fee affordable to students during pandemic?
- Do you think that taking exam in online is fair enough?

Economy related questions:

- Do you think that government's support are efficient in this pandemic?
- Do you think that locked down has decreased our economy rate?
- Have you faced any economic difficulties during pandemic?
- Did you help financially anyone during pandemic? Have you or your family reduce expenses for daily food?

Social related questions:

- Have you faced Internet problem in covid-19 situation to maintain social communication?
- Have you communicated properly with your neighbors in covid-19 pandemic situation?
- Have you maintained social distancing rules of WHO of COVID-19?
- Have you used any new social app during Covid-19?
- Do you think virtual communication equivalent to direct communication?

Psychology related questions:

- Were you afraid when you first heard about covid-19 pandemic?
- Are you afraid now when you hear about covid-19 pandemic?
- If you are student, then are you afraid of getting job, or if you are in job, are you afraid of losing your job?
- Do you think that medical services in Bangladesh are sufficient for this type of pandemic situation?
- Do you think that test result of covid-19 in Bangladesh is accurate?
- Do you think that covid-19 pandemic will finish? After covid-19, will you wear mask before going out home?
- Are you comfortable of wearing mask always time?
- Do you eat anything out of home in this situation?
- Do you think that Covid-19 makes you stronger psychologically?

Appendix B

Rule Generation & Explanation

We have found out the top three rules based on traditional apriori algorithm using Support and Confidence. After finding the rules, we have analyzed the gender and age characteristics of the rules and also find the correlation of the rules using our proposed measure IM-Score.

For Education, the top three rules are:

Rule 1: Do you agree that education system is so much hampered due to corona virus? - Yes and Is it easy to do online class continuously for 4 hours or more? - No

Rule 2: Do you agree that education system is so much hampered due to corona virus? - Yes and Is the semester fee affordable to students during pandemic? - No

Rule 3: Do you think that both teachers and students feel comfortable teaching and learning in online? - No and Is it easy to do online class continuously for 4 hours or more? - No

Now, for Rule 1, the scenario is: The rules are mostly positively correlated based on IM-Score and we can say that for both male and female of any age thinks that the COVID-19 hampers the educational system but they argue about long time of online classes. So, there's is an insight for educational institutions that they can take shorter online classes.

Now, for Rule 2, the scenario is: IMPACT OF COVID-19 ON PERSONAL LIFE 13 This rule is not positively correlated for all characteristics. We can see that For Male 19-22 the lift value is less than 1 but IM-Score is positively correlated. So, it's ambiguous. But for others, the rule is positively correlated. In this pandemic time, COVID-19 hampers their study but the tuition fee offered by university is not reasonable to the. So, universities can take insight and look after their tuition fees.

Now, for Rule 3, the scenario is: For this rule, everyone thinks that, teachers and students are not comfortable at online class and long hour class. It could be a message that, all are digitally connected, using Facebook but the educational system is not prepared yet for both party. The online class can be interactive.

For Economy, the top three rules are:

Rule 1: Have you faced any economic difficulties during pandemic? - Yes and Do you think that locked down has decreased our economy rate? - Yes

Rule 2: Male - Yes and Do you think that locked down has decreased our economy rate? - Yes

Rule 3: Do you think that government's support is efficient in this pandemic? - No and Do you think that locked down has decreased our economy rate? - Yes

Now, for Rule 1, the scenario is: For this rule, we have seen economical correlation. For Male 23-30, the lift value is less than 1 but IM-Score is positively correlated. So, the rule is ambiguous. The 23-30 Male are engaged in job, so, the economical perception is different. But for others, all faces economic crisis in this period and they also believe that, Bangladesh faces economic crisis overall.

Now, for Rule 2, the scenario is: The rule is not interesting based on the demographic behavior as the lift value is less than 1 but the IM-Score is highly positively correlated. So, the rule is ambiguous.

Now, for Rule 3, the scenario is: For Male 23-30 and Female 19-22, the lift value and IM-Score contradict. But for the Male 19-22 and Female 23-30, lift value is greater than 1 and IM-Score is positively IMPACT OF COVID-19 ON PERSONAL LIFE 14 correlated. For this position, they believe that Bangladesh Govt. was not supportive enough during this pandemic and also Bangladesh faces economical degradation.

For Social, the top three rules are:

Rule 1: Have you faced Internet problem in COVID-19 situation to maintain social communication? - Yes and Have you maintained social distancing rules of WHO of COVID-19? - Yes

Rule 2: Have you faced Internet problem in COVID-19 situation to maintain social communication? - Yes and Do you think virtual communication equivalent to direct communication? - No

Rule 3: Have you maintained social distancing rules of WHO of COVID-19? - Yes and Do you think virtual communication equivalent to direct communication? - No

Now, for Rule 1, the scenario is: For 23-30's Male and Female the rule is ambiguous for Lift and IM-Score values. The most correlated is for Female 23-30. They stay at home in COVID time and as the internet usage increase, they face internet problem. Internet providing companies can take insight from it.

Now, for Rule 2, the scenario is: For Male 19-22 and Female 23-30 the rule is ambiguous. But for others, the rule is interesting. They try to communication with others using internet, face problem and they believe that it is not equivalent to social communication. Social application designer can take insight from it.

Now, for Rule 3, the scenario is: For Male 19-22, they like freedom and sometimes avoid social distancing. That's why the rule is ambiguous for them. But for others the rule is interesting as they try to maintain social distancing but they miss social interaction using virtual application.

For Psychology, the top three rules are:

Rule 1: Do you think that medical services in Bangladesh are sufficient for this type of pandemic situation? - No and Do

you eat anything out of home in this situation? - No IMPACT OF COVID-19 ON PERSONAL LIFE 15

Rule 2: Do you eat anything out of home in this situation? - No and After COVID-19, will you wear mask before going out home? – Yes

Rule 3: Were you afraid when you first heard about COVID-19 pandemic? - Yes and Do you eat anything out of home in this situation? - No

Now, for Rule 1, the scenario is shown in Table 4: For Male 23-30, they have to work outside home in this time and the rule is ambiguous for them. But for others, they believe that the services provided by the hospitals are not satisfactory and they are conscious of the hygiene of outside restaurants. So, restaurants can take insight from the analysis.

Now, for Rule 2, the scenario is shown in Table 4: Male 23-30 is the generation who does not follow COVID-19 restrictions and the rule is ambiguous for them. But for others, they are aware of mask rules and outside hygiene.

Now, for Rule 3, the scenario is: Here also for Male 23-30, the rule is ambiguous. But remaining ones are conscious about COVID-19 issue.

Table 4. Psychology- Agerage of Rules

	Conf	Lift	All-conf	Kul	cosine	IM-Score
Male 23-30	0.72	0.92	0.69	0.74	0.74	0.72
Male 19-22	0.84	1.06	0.74	0.82	0.81	0.79
Female 19-22	0.84	1.07	0.75	0.82	0.82	0.79
Female 23-30	0.87	1.12	0.84	0.86	0.86	0.86

Appendix C

Result of Collected data:

Table 1. Education- Agerage of Rules

	Conf	Lift	All-conf	Kul	cosine	IM-Score
Male 23-30	0.87	1.09	0.78	0.83	0.83	0.81
Male 19-22	0.85	1.07	0.78	0.82	0.82	0.81
Female 19-22	0.86	1.09	0.78	0.83	0.83	0.82
Female 23-30	0.84	1.04	0.72	0.81	0.80	0.78

Table 2 . Economy- Agerage of Rules

	Conf	Lift	All-conf	Kul	cosine	IM-Score
Male 23-30	0.86	0.98	0.81	0.84	0.84	0.83
Male 19-22	0.91	1.03	0.79	0.85	0.85	0.83
Female 19-22	0.90	1.02	0.72	0.81	0.80	0.77
Female 23-30	0.99	1.12	0.72	0.85	0.84	0.81

Table 3. Social- Agerage of Rules

	Conf	Lift	All-conf	Kul	cosine	IM-Score
Male 23-30	0.71	0.98	0.69	0.71	0.71	0.71
Male 19-22	0.73	1.00	0.72	0.78	0.78	0.76
Female 19-22	0.77	1.06	0.76	0.83	0.82	0.80
Female 23-30	0.70	0.96	0.70	0.72	0.72	0.71