THE ROLE OF SOCIAL MEDIA PLATFORMS IN THE PANIC BULK BUYING OF GROCERIES ITEMS AND SANITARY PRODUCTS DURING THE COVID-19 PANDEMIC

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Abstract

The Coronavirus or Covid-19 is a global pandemic that took million of lives all around the world and put all the world economies on a brink of collapse and a major factor in causing this panic situation was of Social Media Platforms because people all around the world started sharing news related to covid-19 on Social Media Platforms without fact checking it and by doing so it created fear and panic among the people of the world and it caused a lot of people to go in a frenzy situation, people started taking impulsive decisions and that is the reason people all rused towards the nearest grocery stores, supermarkets, pharmacies and medical equipment stores to stock up on essential and non-essential grocery items and sanitary products because they thought that their respected governments will put the lockdown on all of the county and then who know when they will get these supplies and the purpose of this study was to find out the role of Social Media Platforms in the Panic Bulk Buying of Groceries Items and Sanitary Products during the Covid-19 pandemic in Pakistan. Size of sample taken was of 436 individuals and the data was gathered through Google Forms and data collection was done in the cities of Karachi, Islamabad and Lahore. questionnaires were designed with the help of five-point Likert scale and dichotomous questions from previous researches. reliability of this model showed the strong consistency of the responses. spss software was used for testing the data by applying regression and correlation tests and the results signified that there is a significant impact of social media platforms on panic bulk buying of grocery items, panic bulk buying of sanitary products and herd mentality in the presence of the covid-19 pandemic.

Keywords: Covid-19 Pandemic, Social Media Platforms, Panic Bulk Buying, Grocery Items, Sanitary Products, Herd Mentality.
Introduction

The covid-19 or coronavirus is a crisis which has put all of human kind in danger and with danger fear is synchronize and this fear is not just the health concerns among the people but also the economic downfall of the countries. Social media platforms are a great essential of our modern era through which we can gather relevant knowledge about almost everything but still every bean has its black. (Naeem, 2020), social media is a very dangerous place for some emotionally charged people, its human psychology that people like and engage with the content.

This can create misinformation and deception among people and the same happened when the covid-19 pandemic started many people started sharing false information about the covid-19 virus which caused panic around the world due to which panic bulk buying stared around the world, (Sharma, et al., 2020) this crisis have covered globally due to the pandemic of covid-19 and this has caused drastic change in the buying behaviour of the people, due to which the world economy is also being affected by it because of uncertainty and fear. (Ali, 2020) As to get a proper control over it the governments of many countries have started to implement lockdowns so that situation can be controlled. (Loxton, et al., 2020) Social media plays a great role as people have started bulk purchases of the necessity things which includes the general groceries, baby supplies, sanitary items, and ext. It is because of the easy access of big social media platforms that people can share any information they get without even fact checking it which is a big concern for not just the people but also the governments because people then ignore the official guidelines of their representative governments and start to take some steps impulsively. (Ahmed & Murad, 2020). Due to social media platforms fear and panic related to covid-19 has increased significantly which can impact the mental health and well-being of a person. According to the study the most misinformation was spread through world’s biggest social media platform Facebook which caused fear and panic among the people of Iraq.

In many European countries like UK, (Turner, 2020) due to social media’s misinformation and UK’s Prime Minister’s speech people panicked and placed so many online groceries order that online groceries sites like Morrison’s, TESCO and ASDA’s crashed and to understand the scale of bulk buying (Staff, 2020) there were
approximately 79 million more groceries orders as compared to last year (in a month in Great Britain) and in Malaysia the sales of medical masks and hand sanitizers reached a record high of 800% increase as compared to last year (2019) (spectra, 2020) (lufkin, 2020) (Naz, 2020) In Pakistan the situation was quite the same when the first case of covid-19 was detected the government took all the necessary actions by implementing smart lockdown in the country and by closing all the public gathering places like malls, marriage halls, education institutions, parks, places of worship, markets and ext. but still, the reaction from the general public indicated irresponsiveness and recklessness which was a big concern for the government because people ignored all the covid-19 guidelines prescribed to them by the government and they all rushed towards different retail stores to bulk buy the essentials for them and this all caused more panic because the people who couldn’t reach the supermarket were met with surprise when they saw empty shelves in the retail stores. This all implies that there is a lack of empathy among the people the rich get all the essentials that they need and the poor don’t get it and is faced with the food crisis, (Taylor, 2019) had a similar view it stated that the upper-class people have a herd mentality and that they do not associate themselves with the people below their status and this could cause fear and pain in an outbreak of disease of some kind.

In Pakistan, the upper class (income group) of the country normally consumes about three times more than that of the lower middle class and the lower class (income group) and if the upper-class people started panic buying then it will have a very negative impact on the lower middle class and the lower class people and it might be a bigger problem for the representative government then the covid-19 pandemic. (Redaelli, 2019) they found out that more than half of their respondents have faced difficulty with the shortage of items while shopping at retail stores and about more than 40% have faced difficulty in finding essential and non-essential items, only 30% people said that they didn’t had any difficulty in finding essential and non-essential items.

However, despite social media is one of the main reasons for creating fear and panic among the people but still we cannot ignore the fact that due to social media we are aware about the online groceries stores which have helped not only the people all around the world but also the governments by providing all the necessity items at your
Online grocery store sales have tripled and there was an overall increase of more than 300% in the starting stages of the covid-19 pandemic.

Online groceries sales were on such a rise that different retailers had to hire more employees to handle the online groceries orders and they also hired more delivery drivers to deliver those online orders, (APP, 2020) the people of the capital of Pakistan Islamabad have started to buy online groceries because they fear that if they go out they could contract the covid-19 virus and even though the local online groceries store are slow at delivery that is two days but still they follow all the necessary covid-19 guidelines (SOPs).

Problem Statement

- This study is done to find the impact of social media on the panic bulk buying of groceries items and sanitary products in the critical situation of covid-19 pandemic and how the government of Pakistan is tackling this situation. In this situation the panic bulk buying of necessary groceries goods have increased due to the fear of shortage of the necessity items and this has garner the attention of all the researchers because they are confused about the fact that whether this situation is caused by the psychological toll it has on the minds of the people or is it because of the social media and the non-authentic news on it.
- Many pieces of research have been done on Covid-19 but none of the researches were conducted simultaneously in Lahore, Karachi and Islamabad three major metropolitan cities of Pakistan and neither were these specific variables taken in consideration which are social media, panic bulk buying and herd mentality in accordance with a moderator covid-19. (Kazi, Khokar, Qureshi, & Murtaza, 2019)
- This research was done to understand the mentality of the people of Pakistan and how they had to cope up with covid-19 situation under the panic created by social media about the covid-19.
- One of the main concerns in the covid-19 situation is the electronic word of mouth, It played a vital role in the bulk purchases of necessary items and this has caused a lot of distressed for some emotionally charged people and it has increased in this covid-19 situation because unnecessary travelling has been reduced and the
government has put a ban on the congregation and has advised the people to stay in their homes. (Nicola, et al., 2020)

- Some factors which are causing bulk buying In the covid-19 pandemic are the website’s advertisements especially the pop-up ads, In the covid-19 pandemic people searched for different essential grocery items and medical supplies online and which caused Search Engine Optimization (SEO) to work its magic and it started showing different package deals on the different sites that users visited as pop up ads and which caused the people to buy those items impulsively. (Lomas, 2020)

**Research Questions**

1. What is the impact of social media platforms on bulk buying of groceries items during the covid-19 pandemic?
2. What is the impact of social media platforms on bulk buying of sanitary products during the covid-19 pandemic?
3. Does panic buying behaviour develop through social media during the covid-19 pandemic?
4. Does panic bulk buying happen due to herd mentality?

**Scope**

The research is done to investigate the people of Lahore, Islamabad and Karachi. This study aims to find out the role of social media platforms (Independent variable) in the panic bulk buying of grocery items, panic bulk buying of sanitary products and herd mentality (Dependent variable) during the covid-19 pandemic (Moderator).

- **Sample:** Quantitative research is being conducted for primary data collection. Rotation of questionnaires in the form of Google forms is done with some specific questions in it, the data is being collected from about 350-400 people both male and female living in Lahore, Islamabad and Karachi which is taken into account.
Significance of Research

The study is done to provide the marketing field with additional information about the impact of social media platforms on the panic bulk buying of groceries items and panic bulk buying of sanitary products (herd mentality) in the covid-19 pandemic.

Limitations

This research has some limitations which are as follows:

- We had a short time duration for our research which is of four months.
- We did not had any financing for the research.
- We had to follow all the covid-19 restriction while conducting this research.

Literature Review

Panic Bulk Buying of Grocery Items

The role of social media platforms in the bulk buying of groceries in the covid-19 pandemic is indicated by the trending of hashtags related to shortage of grocery items on all of the big social media platforms across the world, this all adds up to the fact that due to social media fear is created among the people and because of fear the buying behavior of the people have changed drastically. Fear of covid-19 has created panic across the consumers of the world and which has resulted in the immense bulk buying of groceries around the globe. According to Muhammad Naeem social media is a place which can be quite dangerous for some people because people usually believe everything which is shown on the internet and don’t even bother to even fact check the information and this all creates panic and fear among some sensitive or emotional people. (Naeem, 2020)

The hording of groceries and essential items was a common site all around the world in the starting of the pandemic and according to A.K.M. Najmul Islam, Ali Farooq, Amandeep Dhir and Samuli Laato it was not only the fear of being quarantined and health concerns but also the fact that due to this covid-19 virus the whole world was shutting down everything was getting close and which sparked the fear among the people that if the factories close down then there would be a disruption in the supply
chain and they might hold back the essential grocery items, so this caused the people of the world to go in a state of frenzies and they all started to stock pile every essential item that they can get their hands on. (Laato, Islam, islam, & whelan, 2020)

The covid-19 pandemic has turned into a major crisis around the world and this pandemic has affected the global economy and some would say that it has introduced a new world order and which can be seen by the changing buying behavior of the people of the world. The survival instinct kicked in due to the fear of covid-19 pandemic and the people around the world started to stock-pile essential medical supplies like masks, gloves and sanitizers and long-lasting groceries items like pasta and canned food they did so because of uncertainty and fear caused by the covid-19 virus and this panic has disrupted the world economy. (Sharma, et al., 2020)

The coronavirus is a very deadly virus and is a great threat to the human kind, the outcome and the containment measures are largely unknown and up till now there is no such proper vaccine to prevent the covid-19 virus. The purchase of essential products like medical supplies and sanitization products is reasonable but however it will can increase a lot in the upcoming months. According to (Loewenstein, Hsee, weber, & Welch, 2001) and (Trivedi & Rao) when panic is increased among the consumers then they stop thinking reasonably and start taking impulsive or immature actions and this is caused when a consumers sense of decision making is overruled by the felling of anxiety. The consumers then starts to take decision without proper reasoning and which can be harmful for them or other.

According to (yoon, narasimhan, & kim, 2017) Panic buying is a phenomena in which a change can be seen in the buying behavior of the customer which causes a person to buy extraordinary large quantities of products or different varieties of products (generally grocery items) because of some sort of a disaster, panic buying can occur before a disaster when the warning about the disaster is issued, in the presence of a disaster or after the disaster, these disasters can be anything an earthquake, a tsunami, a hurricane, a global pandemic or an epidemic of a virus of some sort. Panic buying can also be caused by an anticipated large increase in the price or an unexpected shortage of goods.
Panic Bulk Buying of Sanitary Products

According to (spectra, 2020) (lufkin, 2020) stockpiling of sanitary products such as medical masks and sanitizers has been on such a rise that there has been a global shortage of such essential sanitary products and there is no indications to when these sanitary products would be in stock. In Malaysia the sales of hand sanitizers increased by more than 800% in a week as compared to last year (2019), the total sales of hand sanitizers valued at $237,176 or RM 1 million.

Due to covid-19 many retail stores were our of stock for all the necessary sanitary products like masks, sanitizers, gloves, hazmat suites and many other products which help in the prevention of covid-19 virus and which lead to people searching these sanitary products on online sites like Amazon, Ebay and many more but the problem was that prices of such products were increased vastly, it was found that the price of products like masks and hand sanitizers were selling for about 582% more profit and people were also spreading false information to sell more of such products they were claming more than what the actual product can do and which lead to some online retailers taking some actions, Amazon removed about one million sanitary products from its site which were claiming bogus covid-19 facts and going against their websites policies. (Palmer, 2020)

A research conducted by (yuen, wang, ma, & li, 2020)regarding the covid-19 virus has been well praised and in this research four main factors which cause the panic buying behavior in the people have been identified and those factors are: (1) fear of unknown, (2) perception, (3) social psychology and (4) coping behavior. In the research it was found that humans are naturally curious and when they get to know about a disaster or an upcoming disaster then they like to take matters in their own hands and similarly it happened in the situation of a covid-19 virus when the people analyze the probability of contracting the coronavirus high they were inclined to take actions in their own hands and started taking impulsive decisions and which resulted in the panic buying behaviour among the people, they do so to minimize the risk of contracting the covid-19 virus.
Social Media Platforms

The spread of fake news and misinformation has caused a lot of damage to the worldwide businesses of both the print and digital media. On social media platforms false news regarding any topic spreads like a wildfire and this spreading of fake news causes a lot of real world problems and this false news can have an adverse impact on the minds of millions of emotional users. Recently many steps are being taken on a global forum to counter the spread of false news so that there is not as much panic and fear created among the people. (Figueira & Oliveira, 2017)

According to (Kilgo, Yoo, & Johson, 2019) report whenever a new form of crises is disclosed on the global forum the panic among people starts to increase organically but the media whether it be the traditional media or the social media contributes a lot to the creation of panic and anxiety by putting out news headlines and news stories which will gain a lot of attention and the attention these news headlines get is due to the fact that these news channels and news pages play with the fear among the people and this garners a lot of attention and we can take the practical example of Ebola outbreak of 2014-2015 or the H1N1 Swine flu of 2009 when these news outlets created so much panic among the people with their fear inclusive headlines and news stories.

The study done by Araz Ramazan Ahmad and Hersh Rasool Murad further indicates that due to social media misinformation fear of covid-19 was generated among the people of Iraq Kurdistan. This fear can have a very negative impact on the mental health of the people and according to them the most misinformation about the covid-19 was spread through world’s biggest social media. (Ahmed & Murad, 2020)

According to (Laato, Islam, islam, & whelan, 2020) covid-19 is a serious threat to the humankind and according to the director of WHO this is a great "INFODEMIC" which means that due to this covid-19 virus there is huge amount of false news and misinformation which is being circulated on online platforms and people are forwarding these fake and misleading information without even fact checking it and this misinformation is one of the main source of creating fear and pain among the
people of the world and it has become a huge task for the governments of the world to counter this fake news so this spreading of misinformation can be stopped.

Social media is now working on generating social trends to promote the content which generates more views and create more engagement among the people. The risk of covid-19 has created uncertainty in the people and the content which have a negative topic and that will create a lot of criticism spreads easily throughout the different social media platforms and due to increasing users of social media in the pandemic the spread of sensationalism has increased drastically. to (Laato, Islam, islam, & whelan, 2020)

Covid-19 Pandemic

According to (Ali, 2020) the governments all around the world have started to implement lockdowns to get a proper control on the covid-19 virus situation they did so by closing all the public gathering places like malls, marriage halls, education institutions, parks, places of worship, markets and ext. Some countries have also imposed smart-lockdowns which is they do not impose lockdown on all of a country or a city but only put those areas of the city in lockdown which have the most amount of people infected with the covid-19 virus they did so that the country’s economy does not collapse totally and also so that the covid-19 situation can be controlled.

In an event of emergency or crises, the food stockpiling behaviour emerges and disasters like tsunami, hurricanes and earthquakes impact the direct supply chain and all those who are included in it like vendors, producers, retailers and distributors but in a pandemic, this supply chain is not directly disrupted but still a majority of the people have started online grocery shopping in contrast to physical shopping in the current situation of the covid-19 pandemic. (Laato, Islam, islam, & whelan, 2020)

Herd Mentality

Herd mentality has been defined by (Kameda & Hastie, 2015) as the behaviours and alignment of thoughts of individuals in a specific group, that are not generated by some sort of authority or a government or a leading public figure and instead it is generated through the local interactions among the group’s people or the agents of that specific group. This all indicated that the people or the group which have
heard mentality they don’t even bother to look into an issue if that issue is not directed at them they only care about themselves and the people associated with their group and they do not care about these people who they perceive have a lower status then them.

Covid-19 pandemic has caused a great increase in the herd mentality among the consumers of the world, the herd mentality encourages consumers to stock-pile grocery items or consumer goods and this all indicates that they only think about themselves and do not think about others and the collective society that someone might need it more than me. Coronavirus has threatened the sense of security among the people of the world and when this happens the upper-class people who are used to live an upper-class life does not want to compromise on the essentials of their lives even if they have to get those essential things on the expense of others (below their status) and this has caused the unequal distribution of basic resources or in other words, overconsumption caused by herd mentality has led to a depletion of basic resources. (Loxton, et al., 2020)

**Research Framework**
Hypotheses

H₀₁: There is no significant impact of Social Media Platforms on Panic Bulk Buying Of Grocery Items.

H₁: There is a significant impact of Social Media Platforms on Panic Bulk Buying Of Grocery Items.

H₀₂: There is no significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.

H₂: There is a significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.

H₀₃: There is no significant impact of Social Media Platforms on Herd Mentality.

H₃: There is a significant impact of Social Media Platforms on Herd Mentality.

H₀₄: COVID-19 does not moderate the relationship between Social Media Platform and Panic Bulk Buying Of Grocery Items.

H₄: COVID-19 positively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Grocery Items.

H₀₅: COVID-19 does not moderate the relationship between Social Media Platform and Panic Bulk Buying Of Sanitary Products.


H₀₆: COVID-19 does not moderate the relationship between Social Media Platform and Herd Mentality.

H₆: COVID-19 positively moderates the relationship between Social Media Platform and Herd Mentality.
Literature Review

The consumer behavior in the form of panic buying, herd mentality and discretionary spending as anticipated by Maslow’s Hierarchy of Needs appears to align with behaviors exhibited during shocks and crises of the past (Loxton, et al., 2020). The consumer behavior has changed the response because of the pandemic which is impacting local and global online shopping (Ali, 2020). Social media can play an active role in developing consumer panic buying during Covid-19 pandemic (Naeem, 2020). The pressing issues and global challenges of solid waste management for making the air clean were identified with this research. (Sharma, et al., 2020). Work to educate media consumers on what constitutes good and reliable information and how to critically think through this information is done (Ahmed & Murad, 2020). The research is done to suggest the examination of 2014 Ebola crisis on the newspaper coverage and news on the social media plate form. The uncertainty surrounding Ebola (Kilgo, Yoo, & Johson, 2019). The research used the system to prevent the creation of fake news collides with many democratic values (Figueira & Oliveira, 2017).

Hao, Wang, & Zhou, (2020), Identified the downside that e-commerce with bring to the society. When ecommerce plate forms have a food run under extreme situation.

Research Gap

After analyzing the previous researches we have found multiple research gaps and some of the most prominent gaps which we found were that in most of the researches articles, the research was done in those countries which were less impacted by active covid-19 cases and our research is based in Pakistan where there are significantly more active covid-19 cases then those countries where previous researches were conducted. (Laato, Islam, Farooq, & Dhir, 2020) and we are conducting this research in Pakistan because in previous researches these variables which are (Indirect Variable) Social Media Platforms (Dependent Variable) Panic Bulk Buying of Grocery Items, Panic Bulk Buying of Sanitary Products and Herd Mentality and (Moderating Variable) Covid-19 Pandamic were not used together in a study in these specific cities of Pakistan (Karachi, Lahor and Islamabad).
Methodology

The main reason of conducting this research is to find the role of Social Media Platforms on Panic Bulk Buying of Groceries Items and Panic Bulk Buying of Sanitary Products during the COVID-19 Pandemic. Quantitative study has been conducted and primary data was collected by 436 respondents of Islamabad, Lahore and Karachi through online questionnaires in the form of Google forms and the scales for the questionnaire was drafted through previous research articles. Moreover, deductive approach and non-random convenient sampling is used for this study. The variables used in the study have been further divided into their dimensions and have been thoroughly studied by reviewing previous literature and by referring previous literature we were able to find out the relationships between the selected variables.

The testing of hypothesis is done through SPSS software and the reliability test of the data (responses of questionnaires) are going to analyses by using cronbach’s alpha analysis, correlation and regression analysis.

Research Design

Research Approach

This study uses Deductive approach because it is quantitative in nature and is a little bit less risky and we have also developed our hypothesis on the basis of existing theories. According to our analysis this research is highly recommended by the previous researches because nothing new in specific is being discovered in the research rather an existing theory is being worked upon. This is one of the main reasons that Deductive approach is a little bit less risky than Inductive approach which is completely opposite as it is based on finding something new.

The data collected from 436 respondents (memon, hwa, ting, & ramayah, 2020) from Lahore, Karachi and Islamabad through online questionnaires is being tested by using Statistical tool (SPSS software) and through the Statistical tools we are able to find the role of independent variables (Social Media Platforms) on the dependent variable (Panic Bulk Buying of Grocery Items, Panic Bulk Buying of Sanitary Products during the Covid-19 Pandemic).
Sanitary Products and Herd Mentality) in the presence of a moderator (Covid-19 Pandemic).

**Research Strategy**

We are conducting quantitative research to investigate the impact that social media platforms has on panic bulk buying of grocery items, panic bulk buying of sanitary products and herd mentality in the presence of covid-19 pandemic. We will be collecting responses through online questionnaires (Google forms) which will be considered as primary data and we have constructed our questionnaire by using 5-point likert-scale and Dichotomous by using scales from previous researches.

**Data Collection Techniques**

We have collected data for the research trough online questionnaires by using Google forms and we have used the scales from different previous researches in our questionnaire. (lins & aquino, 2020) (kaya, 2020) (ahmed, rolle, & streimikiene, 2020) (bhoomika trehan & sinha, 2000) (Ahmed & Murad, 2020)

**Unit Of Analysis**

We have used Individual unit of analysis in our research as the respondents who filled the questionnaire were individuals.

**Data Analysis Techniques**

The Hypothesis of our research are tested by using SPSS software because it is a highly recommended software in statistics and the reliability test of the data (responses of questionnaires) are going to analyzed by using crornbach’s alpha analysis, correlation analysis and regression analysis and this will also help in determine what is their impact and relation. The result which we have extracted from running these test are also shown in the form of tables and graphs for better understanding.
Credibility and Reliability

We have ensured the credibility and reliability of our research by reporting Cronbach Alpha and we have made sure to not go below the minimum value of Cronbach Alpha which is 0.6 because that won’t be acceptable for the reliability and credibility of the data and to make our research more accurate and credible we have used a big sample size because if the same results are coming in again and again then this also increases the research’s credibility and reliability.

Ethical Considerations

We have collected our data while keeping ethical consideration as our upmost priority, we have informed each and every respondent about the circulation of the questionnaire and we have also mentioned to every respondent that it is for our final year academic research which is conducted by our university and we have not asked our respondents to mention their names and email addresses so that their identity can be anonymous and we have not forced any of our respondents in any way to fill this questionnaire with maximum time available to them and we made sure to the respondents that this data will be used only for our research article and will not be used for any other purpose and this is done to keep the personal data of the respondent’s safe while maintaining privacy.
**Data Analysis**

**Demographics**

We have run descriptive testing on demographics such as location, gender, age, education level, and income group (Household Income) and we have used bar graphs to show the results/summary of the collected data.

![Location Bar Graph](image)

- Lahore
- Islamabad
- Karachi
Bar Graphs and Interpretations

Interpretation

The above bar graph represents the location of the 436 respondents, there are three location categories which include Karachi, Lahore and Islamabad. It is indicated in the graph that the highest number of responses were from Karachi which is 294 (67.4%) responses, 85 (19.5%) responses from Islamabad and lastly the least number of responses came from Lahore which is 57 (13.1%) responses.

In above gender bar graph, there are two respective gender (male and female). We have collected data from 436 respondents and among them the majority of the respondents were male which is 220 (50.5%) and the rest were female respondents which were 216 (49.5%).
The graph above represents the age of the respondents there are six age sections starting from less than 20 years, 20-29 years, 30-39 years, 40-49 years, 50-59 years and lastly 60 years and above. The data collection from 436 respondents shows us that the highest number of respondents that is (55.7%) of the total respondents were present in the age bracket of 20-29 years that are 243 respondents. 114 respondents that are (26.1%) of the total respondents fall under the age bracket of less than 20 years, 36 respondents that is (8.3%) of the total respondents fall under the age bracket of 30-39 years, 23 respondents that is (5.3%) of the total respondents fall under the age bracket of 40-49 years, 12 respondents that is (2.8%) of the total respondents fall under the age bracket of 50-59 years, and lastly 8 respondents that is (1.8%) of the total respondents fall under the age bracket of 60 years and above.
The above graph represents the educational level of the respondents and it has four categories which include (High School, College, Under Graduate and Post Graduate). After analyzing the data we came to know that the highest number of respondents fall under the Under Graduate category which is 235 (53.9%) respondents as their education level, 93 (21.3%) respondents fall under the category of Post Graduate as their education level, 54 (12.4%) respondents fall under the category of College and High School both as their education level.

In the above bar graph, there are five income group categories which include less than RS.50000, RS.50000 – RS.99999, RS.100000 – RS.149999, RS.150000 – RS.199999 and RS.200000 and above. 436 responses were taken and out of which the maximum amount of respondents fall under the income group category of less than RS.50000 which is 202 (46.3%) respondents, 83 (19%) respondents fall under the income group category of RS.50000 – RS.99999, 65 (14.9%) respondents fall under the income group category of RS.100000 – RS.149999, 48 (11%) respondents fall under the income group category of RS.200000 and above and lastly with least number
of respondents 38 (8.7%) respondents fall under the income group category of RS.150000 – RS.199999.

Dichotomous Yes/No Questions (Disciptives):

In the above bar graph we have asked our respondents that does panic buying behavior develops through social media during the Covid-19 pandemic and the respondents have provided us with their opinion in the form of either Yes or No (Yes being they agree with the statement and No being they disagree with the statement). Out of 436 responses 357 (81.9%) responses were Yes that they agree with the above statement and 79 (18.1%) responses were No that they disagree with the above statement.
In the above bar graph we have asked our respondents that do they generally get news related to Covid-19 pandemic on social media platforms like Facebook, Instagram, Twitter, etc and the respondents have provided us with their opinion in the form of either Yes or No (Yes being they agree with the statement and No being they disagree with the statement). Out of 436 responses, 362 (83%) responses were Yes that they agree with the above statement and 74 (17%) responses were No that they disagree with the above statement.

**Quantitative Study**

**Reliability**

To check if the gathered data is consistent or not, a reliability test was applied and also to check if the measurements are repeated several times or no.

We have run reliability analysis on every variable separately to check the consistency of responses and the acceptability of the scale.
Table 1: Reliability analysis of Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
<th>Number Of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19</td>
<td>0.664</td>
<td>5</td>
</tr>
<tr>
<td>Panic Bulk Buying Of Grocery Items</td>
<td>0.745</td>
<td>4</td>
</tr>
<tr>
<td>Panic Bul Buying Of Sanitary Products</td>
<td>0.811</td>
<td>6</td>
</tr>
<tr>
<td>Social Media Platforms</td>
<td>0.537</td>
<td>6</td>
</tr>
<tr>
<td>Herd Mentality</td>
<td>0.811</td>
<td>4</td>
</tr>
</tbody>
</table>

**COVID-19**

The reliability test showed that the Cronbach’s Alpha for COVID-19 was 0.664, which signifies that the scale has moderate reliability and all of its items are closely related and have moderate consistency, the number of items is five and are unidimensional.

**Panic Bulk Buying Of Grocery Items**

On applying reliability test to PANIC BULK BUYING OF GROCERY ITEMS, the Cronbach’s Alpha came out to be 0.745 which signifies that the scale is strongly reliable, and as value is greater than 0.6, it indicating that dimension has all closely related items and there is a strong consistency, there are four items in this dimension and it is unidimensional.

**Panic Bulk Buying Of Sanitary Products**

On applying reliability test to PANIC BULK BUYING OF SANITARY PRODUCTS, the Cronbach’s Alpha came out to be 0.811 which signifies that the scale is strongly reliable, and as value is greater than 0.6, it indicating that dimension has all closely related items and there is a strong consistency, there are six items in this dimension and it is unidimensional.
Social Media Platform

The reliability test showed that the Cronbach’s Alpha for SOCIAL MEDIA PLATFORMS was 0.537, which signifies that the scale has moderate reliability and all of its items are closely related and have moderate consistency, the number of items is six and are unidimensional (we have shown general data results for this variable, we can further improve the value of Cronbach’s Alpha for SOCIAL MEDIA PLATFORMS by removing one or more items from this variable).

Herd Mentality

On applying reliability test to HERD MENTALITY, the Cronbach’s Alpha came out to be 0.811 which means there is a strongly reliable and acceptable scale, and as value is greater than 0.6, it indicating that dimension has all closely related items and there is a strong consistency, there are four items in this dimension and it is unidimensional.

Correlation analysis

<table>
<thead>
<tr>
<th>Table 2: Correlation Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>AVG COVID</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>AVGPPBBGI</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>AVGPPBBSPP</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>AVGSPM</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>AVGHM</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
</tbody>
</table>

Correlation analysis was done on all the above-mentioned hypothesis which helped us to analyze the relationship between these variables. The correlation value is
anywhere from +1 to -1. If the value came out to be near to +1, it indicated that relation among the two variables is strong and positive but if a value is towards 0 it shows that relation is weak, and -1 value shows a negative relationship among the two variables. Pearson correlation value tells us about the degree of relationship among variables.

Alpha’s value = 0.05

N = 436

Significance value = 0.000

- **COVID-19 And Panic Bulk Buying Of Grocery Items**

  Pearson Correlation = 0.498

  The value of Pearson correlation indicates that Covid-19 and Panic Bulk Buying Of Grocery Items are moderately correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

- **COVID-19 And Panic Bulk Buying Of Sanitary Products**

  Pearson Correlation = 0.494

  The value of Pearson correlation indicates that Covid-19 and Panic Bulk Buying Of Sanitary Products are moderately correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

- **COVID-19 And Social Media Platforms**

  Pearson Correlation = 0.438

  The value of Pearson correlation indicates that Covid-19 and Social Media Platforms are moderately correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.
• **COVID-19 and Herd Mentality**

  Pearson Correlation = 0.354

  The value of pearson correlation indicates that Covid-19 and Herd Mentality are weakly correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

• **Panic Bulk Buying Of Grocery Items And Panic Bulk Buying Of Sanitary Products**

  Pearson Correlation = 0.758

  The value of pearson correlation indicates that Panic Bulk Buying Of Grocery Items and Panic Bulk Buying Of Sanitary Products are strongly correlated, the above table highlights the value of significance as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

• **Panic Bulk Buying of Grocery Items and Social Media Platforms**

  Pearson Correlation = 0.467

  The value of pearson correlation indicates that Panic Bulk Buying Of Grocery Items and Social Media Platforms are moderately correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

• **Panic Bulk Buying of Grocery Items and Herd Mentality**

  Pearson Correlation = 0.692

  The value of pearson correlation indicates that Panic Bulk Buying Of Grocery Items and Herd Mentality are moderately correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.
- **Panic Bulk Buying of Sanitary Products and Social Media Platforms**

  Pearson Correlation = 0.461

  The value of pearson correlation indicates that Panic Bulk Buying Of Sanitary Products and Social Media Platforms are moderately correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

- **Panic Bulk Buying of Sanitary Products and Herd Mentality**

  Pearson Correlation = 0.746

  The value of Pearson correlation indicates that Panic Bulk Buying Of Sanitary Products and Herd Mentality are strongly correlated, the above table highlights the value of sig as 0.000 which is less than 0.05 this implies that these both variables have a significant relationship.

- **Social Media Platforms and Herd Mentality**

  Pearson Correlation = 0.442

  The value of Pearson correlation indicates that Social Media Platforms and Herd Mentality are moderately correlated, the above table highlights the value of significance as 0.000 which is less than 0.05 this implies that these variables have a significant relationship.

**Regression Analysis**

A regression test is applied to check if the hypothesis is accepted or rejected based on coefficient. A regression test is also used to depict the nature of the relationship among dependent and independent variable.

<table>
<thead>
<tr>
<th>Table 3: Model summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant) AVGSMP
Panic Bulk Buying of Grocery Items

As in the above table, the value of R Square is 0.218 which indicates that there is 21.8% of variation independent variable (Panic Bulk Buying Of Grocery Items) due to the independent variable (Social Media Platforms).

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.461*</td>
<td>0.213</td>
<td>0.211</td>
<td>0.697</td>
</tr>
</tbody>
</table>

Panic Bulk Buying of Sanitary Products

As in the above table the value of R Square is 0.213 which indicates that there is 21.3% of variation independent variable (Panic Bulk Buying Of Sanitary Products) due to the independent variable (Social Media Platforms).

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.442*</td>
<td>0.196</td>
<td>0.194</td>
<td>0.806</td>
</tr>
</tbody>
</table>

Herd Mentality

As in the above table the value of R Square is 0.196 which indicates that there is 19.6% of variation independent variable (Herd Mentality) due to the independent variable (Social Media Platforms).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>62.882</td>
<td>1</td>
<td>62.882</td>
<td>120.816</td>
<td>0.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>225.887</td>
<td>434</td>
<td>0.520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>288.769</td>
<td>435</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: AVGPPBG

b. Predictors: (Constant) AVGSMP
Panic Bulk Buying of Grocery Items

H₀₁: There is no significant impact of Social Media Platforms on Panic Bulk Buying Of Grocer Items.

H₁₁: There is a significant impact of Social Media Platforms on Panic Bulk Buying Of Grocery Items.

As the above table shows the significance value of 0.000 which is less than 0.05 so this means H₀ will be rejected and on the opposite H₁ will be accepted, to conclude we can say that there is a significant impact of Social Media Platforms on Panic Bulk Buying Of Grocery Items.

<table>
<thead>
<tr>
<th>Table 7: Anova</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

a. Dependent Variable: AVGPBBSP

Panic Bulk Buying of Sanitary Products

H₀₂: There is no significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.

H₂: There is a significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.

As the above table shows the significance value of 0.000 which is less than 0.05 so this means H₀₂ will be rejected and on the opposite H₁ will be accepted, to conclude we can say that there is a significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.
The Role of social media platforms in the panic bulk buying of groceries items and sanitary products during the Covid-19 Pandemic

### Table 8: Anova

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>68.715</td>
<td>1</td>
<td>68.715</td>
<td>105.534</td>
<td>0.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>282.585</td>
<td>434</td>
<td>0.651</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>351.300</td>
<td>435</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: AVGHM  
b. Predictors: (Constant) AVGSMP

### Herd Mentality

H₀₃: There is no significant impact of Social Media Platforms on Herd Mentality.

H₃: There is a significant impact of Social Media Platforms on Herd Mentality.

As the above table shows the significance value of 0.000 which is less than 0.05 so this means H₀ will be rejected and on the opposite H₁ will be accepted, to conclude we can say that there is a significant impact of Social Media Platforms on Herd Mentality.

### Table 9: Coefficients *

<table>
<thead>
<tr>
<th>Unstandardize Coefficients</th>
<th>Standardize Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.527</td>
<td>0.154</td>
<td>3.427</td>
</tr>
<tr>
<td>AVGSM1</td>
<td>0.452</td>
<td>0.065</td>
<td>0.305</td>
</tr>
<tr>
<td>AVG Covid</td>
<td>0.561</td>
<td>0.065</td>
<td>0.394</td>
</tr>
<tr>
<td>Interaction_Term</td>
<td>-0.043</td>
<td>0.019</td>
<td>-0.092</td>
</tr>
</tbody>
</table>

a. Dependent Variable: AVGPBBGI

### Social Media Platforms and Panic Bulk Buying of Grocery Items

H₀₄: There is no significant impact of Social Media Platforms on Panic Bulk Buying of Grocery Items.

H₄: There is a significant impact of Social Media Platforms on Panic Bulk Buying Of Grocery Items.

In the above table as the significance value is 0.000 which is less than 0.05 so this indicates the acceptance of H₁ and rejection of H₀. In short we can say, Social Media Platforms have a significant impact on Panic Bulk Buying Of Grocery Items.
COVID-19: (Moderator)

H₀₅: COVID-19 negatively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Grocery Items.

H₅: COVID-19 positively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Grocery Items.

In the above table as the significance value of Interaction Term is 0.027 which is less than 0.05 so this indicates the acceptance of H₁ and rejection of H₀. In short we can say COVID-19 positively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Grocery Items.

Regression Equation

Panic Bulk Buying of Grocery Items = 0.452 (Social Media Platforms) -0.043 (Social Media Platforms * COVID-19) + 0.527

As the sig value is 0.000 which tends to be less than 0.05 so this means that Social Media Platforms is also significant.

As the sig value is 0.000 which tends to be less than 0.05 so this means that Interaction Term is also significant.

1 unit increase in Social Media Platform will result in increase in Panic Bulk Buying Of Grocery Items by 0.452 units.

<table>
<thead>
<tr>
<th>Table 10: Coefficients *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>AVGSMP</td>
</tr>
<tr>
<td>AVG Covid</td>
</tr>
<tr>
<td>Interaction_Term</td>
</tr>
</tbody>
</table>

a. Dependent Variable: AVGPBBSP
Social Media Platforms and Panic Bulk Buying of Sanitary Products

H0: There is no significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.

H1: There is a significant impact of Social Media Platforms on Panic Bulk Buying Of Sanitary Products.

In the above table as the significance value is 0.000 which is less than 0.05 so this indicates the acceptance of H1 and rejection of H0. In short we can say, Social Media Platforms have a significant impact on Panic Bulk Buying Of Sanitary Products.

COVID-19: (Moderator)

H0: COVID-19 negatively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Sanitary Products.

H1: COVID-19 positively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Sanitary Products.

In the above table as the significance value of Interaction Term is 0.080 which is more than 0.05 so this indicates the acceptance of H0 and rejection of H1. In short we can say COVID-19 negatively moderates the relationship between Social Media Platform and Panic Bulk Buying Of Sanitary Products.

Regression Equation

Panic Bulk Buying Of Sanitary Products = 0.430 (Social Media Platforms) - 0.033 (Social Media Platforms * COVID-19) + 0.560

As the sig value is 0.000 which tends to be less than 0.05 so this means that Social Media Platforms is also significant.

As the sig value is 0.000 which tends to be less than 0.05 so this means that Interaction Term is also significant.
1 unit increase in Social Media Platform will result in increase in Panic Bulk Buying Of Sanitary Products by 0.430 units.

<table>
<thead>
<tr>
<th>Table 11: Coefficients *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardize Coefficients</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>AVGSMP</td>
</tr>
<tr>
<td>AVG Covid</td>
</tr>
<tr>
<td>Interaction_Term</td>
</tr>
</tbody>
</table>

a. Dependent Variable: AVGHM

Social Media Platforms and Herd Mentality

**H₀**: There is no significant impact of Social Media Platforms on Herd Mentality.

**H₁**: There is a significant impact of Social Media Platforms on Herd Mentality.

In the above table as the significance value is 0.000 which is less than 0.05 so this indicates the acceptance of H1 and rejection of H0. In short we can say, Social Media Platforms have a significant impact on Herd Mentality.

COVID-19

**H₀**: COVID-19 negatively moderates the relationship between Social Media Platform and Herd Mentality.

**H₁**: COVID-19 positively moderates the relationship between Social Media Platform and Herd Mentality.

In the above table as the significance value of Interaction Term is 0.007 which is less than 0.05 so this indicates the acceptance of H1 and rejection of H0. In short we can say COVID-19 positively moderates the relationship between Social Media Platform and Herd Mentality.

Regression Equation
Herd Mentality = 0.576 (Social Media Platforms) -0.061 (Social Media Platforms * Herd Mentality) + 0.832

As the sig value is 0.000 which tends to be less than 0.05 so this means that Social Media Platforms is also significant.

As the sig value is 0.000 which tends to be less than 0.05 so this means that Interaction Term is also significant.

1 unit increase in Social Media Platform will result in increase in Herd Mentality by 0.576 units.

**Analysis and Discussion**

The findings of the research are well aligned and consistent with the literature review as the literature review of our research shows that there is a significant role of social media platforms in the panic bulk buying of grocery items and panic bulk buying of sanitary products (herd mentality) in the covid-19 pandemic and it is because in a humanitarian crises like covid-19, the main source of information for the people around the world became the different social media platforms and on these platforms people tend to post/share panic inducing content which have an adverse effect on the mental health of the people because they then start to take some impulsive actions which can be harmful for them and others and which is the case when the covid-19 pandemic started people started panicking and rushed towards the grocery stores to stock up on essential and non-essential items and which resulted in the shortage of essential and non-essential items all around the world. The results and findings of our research conclude the following essential findings that are aligned and consistent with the existing literature:

- A significant amount of people which is 357 respondents out of 436 believe that panic buying behavior develops through social media platforms in covid-19 pandemic.
- A significant amount of people which is 362 respondents out of 436 said that they generally get news related to the covid-19 pandemic on social media platforms like Facebook, Instagram, Twitter, etc.
Majority of the people believe that there is a significant impact of social media platforms on panic bulk buying of grocery items in the presence of the covid-19 pandemic.

A moderate amount of people believe that there is a significant impact of social media platforms on panic bulk buying of sanitary products in the presence of the covid-19 pandemic.

Majority of the people believe that there is a significant impact of social media platforms on herd mentality in the presence of covid-19 pandemic.

**Conclusion**

The purpose of conducting this research is to find the role of independent variables (Social Media Platforms) on the dependent variable (Panic Bulk Buying Of Grocery Items, Panic Bulk Buying Of Sanitary Products and Herd Mentality) in the presence of a moderator (Covid-19 Pandemic) and the findings that are obtained from this research are contributing to the body of literature review in a number of ways firstly it can be concluded that at the start of this humanitarian crisis known as covid-19 pandemic there was a huge amount of panic among the people of the world and which is largely because of the panic inducing content shared social media platforms like Facebook, Instagram, Twitter, Etc. people usually do not fact check the content which they post on such social media platforms and these fake news/content just ignite the flames even more which is panic among the people and it was the same panic which caused the people all around the world to rush towards their nearest grocery stores to bulk buy grocery items, sanitary products and other essential and non-essential items because they feared that due to the covid-19 lockdown situation they might not get all these essential and non-essential grocery items and this is the reason why there was shortage of grocery items and sanitary products all around the world and if the governments all around the world had put out some sort of policy which restricted or censored/filtered the sharing of covid-19 related content on social media platforms then their won’t be as much panic created among the people and the governments around the world would have had handled the situation much better and global economy would have been much more stable then what it was a the start of the covid-19 pandemic.
The Role of social media platforms in the panic bulk buying of groceries items and sanitary products during the Covid-19 Pandemic

Recommendations

The results which we gained after analyzing the data states that when the covid-19 pandemic started a lot of people started sharing news related to the covid-19 pandemic on social media platforms like Facebook, Instagram, Twitter, Etc. without fact checking the news and this resulted in panic among people and due to panic people rushed toward the nearest grocery stores, supermarkets, pharmacies and medical equipment stores to stock up on the essential and non-essential items and which indicated herd mentality among the people and in order to reduce this panic created on the social media platforms in the covid-19 pandemic, the government should introduce some sort of policy regarding the sharing of panic-inducing content on social media platforms in humanitarian crises such as the covid-19 pandemic and by censoring/filtering the panic-inducing content there won’t be any panic created by such social media platforms and then the governments can handle the situation much better and we won’t see the same global crisis as we saw on the starting of the pandemic.

References


The Role of social media platforms in the panic
bulk buying of groceries items and sanitary
products during the Covid-19 Pandemic


