

## The Most Common Hashtags on Facebook Used During the Corona Pandemic among Jordanians: A Case Study

**Fadi Ali Abdel-Qader Zyout**  
Irbid- Jordan

**Abeer AL-Ghazo**  
Associate Professor  
Department of English Language and Literature  
Ajloun National University

### Abstract

*This study tries to find the most common hashtags on Facebook used during the corona pandemic. The quantitative method was implemented using an electronic copy of the questionnaire due to the Corona epidemic situation. The sample of the study consists of 232; (128) males and (104) females. To analyze the data obtained from the participants' responses, a suitable statistical analysis was used. The results obtained indicated that the hashtags of خليل بالبيت# occupied the most common hashtag was exchanged between the users with a percentage of 26.6 % followed by the hashtag of خليك بالدار# with a percentage of 22.7 % in the Corona epidemic interval. Moreover, the results pointed out that there was no gender differences between males and females observed in terms of adding hashtags to their posts during the Corona crisis. As well as The researchers recommended conducting more studies on the differences between the genders in the use of hashtags on social media specifically Facebook, due to the lack of studies in this field, particularly in Jordan.*

**Keywords:** Hashtag, Facebook, Corona epidemic, Facebookers, Gender differences.

### Introduction

The emergence of social networking sites (SNSs) has become one of the most thrilling activities in the past decade. Many prominent social networks have been extremely common, such as Twitter, LinkedIn, and Facebook. Therefore, with the emergence of many of these SNSs, Facebook has become the main tool for communicating what we want to tell, texting mates, solidifying new ties, and also a valuable platform for unusual things in existence, including discovering flats. (Kirkpatrick, 2011). Facebook has dominated the field of social networking since its creation in 2014, and it seems like there is no stopping the monster. Facebook is not only a social networking site for many people but it's become a lifestyle (Mohsin, 2019).

A point worthy of mention here is that Internet World States IWS in 2018 has declared that there is a rapid increase among Jordanians in using the internet. Of special interest to this, it has been proved that the population of Jordan has reached 9.9 million based on official figures issued by Census Bureau, in 2001. Another report of IWS in 2017 has also revealed that the users of the internet among Jordanians are around 88%. It is agreed, then, that this percentage represents 8.7 million users. Moreover, the quick spread of internet technology has also influenced and shifted Jordanians attitudes as well as decisions. Dramatically, a recent report has shown that around (93%) of internet users in Jordan use and consider Facebook as their favourite social media platform to communicate with each other. In essence, Facebook is the most social website frequently used and visited among Jordanians for different purposes such as entertainment and sharing news or even communication. On the other hand, the report of IpsosJo, in Jordan, has indicated that around (36%) of Twitter users have used to check this platform, (59%) have used Instagram daily, and (85%) have visited Facebook daily (Jordan Times JT - Jul 18, 2016).

Scrutinizing figure (1) below, the state of affairs, relevant to Facebook in Jordan, has reflected the magnitude of users' prevalence. For example, in February 2020, this figure represents around (54.3%) of its total population. Virtually, a close investigation will reveal that the majority of those users (1,920,000) whose ages are from 25 to 34 are male (57.3%). The obvious discrepancy in gender (male and female) underlies how male surpass by (280,000).

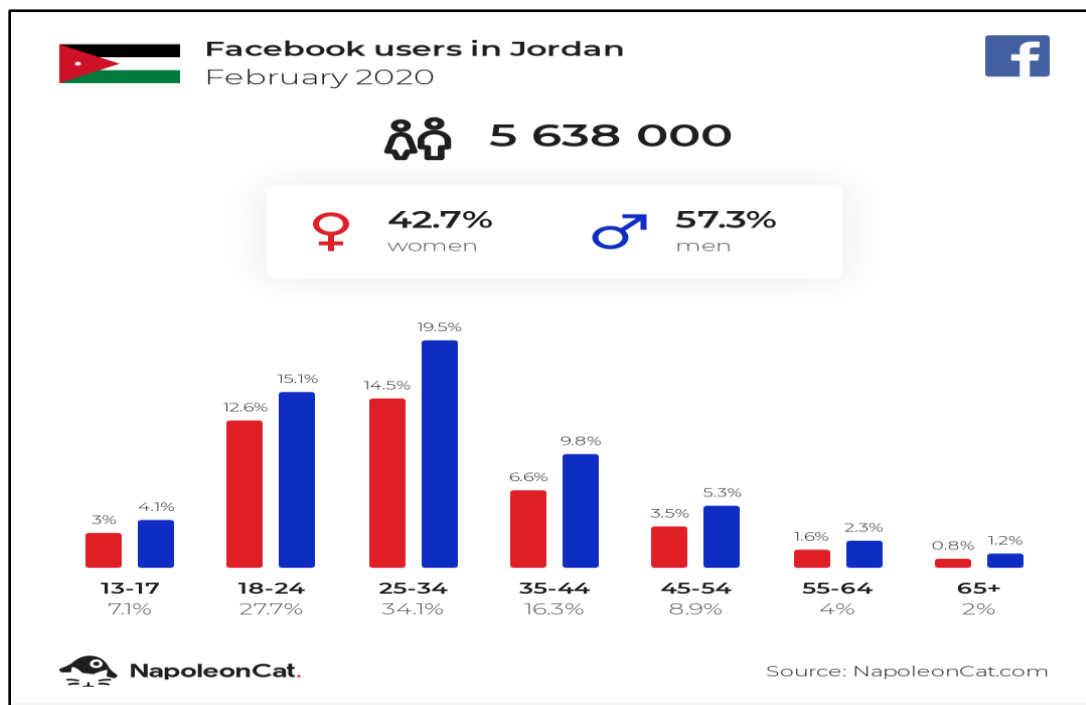


Figure 1: Facebook users in Jordan

In late December 2019, pneumonia of an unknown cause was reported in Wuhan city, China, and from this point, the outbreak has spread extensively to a global scale. On January 30, 2020, the World Health Organization declared a COVID-19 outbreak as a global public health emergency, and at the massive increase in the number of cases and countries affected by the disease, COVID-19 has declared a pandemic on March 11, 2020 (WHO, 2020).

The government is leading the campaign against COVID-19 in Jordan through a multidisciplinary collaborative team at the highest levels at the National Center for Security and Crisis Management (NCSCM). Furthermore, the number of confirmed cases and deaths are publicly reported each day through official reports from the government. To keep pace with developments in the field of digital health, a COVID-19 website has been created available in Arabic and aims to spread knowledge, awareness, recommendations, and statistics to the public. Additionally, cooperation has been developed between the Jordanian government and Facebook to raise awareness about COVID-19 for Jordanians entering Facebook, where Facebook consider one of the most used social networking sites among Jordanians (Jordanian Ministry of Health, 2020).

The Jordanian population is known for high levels of social affiliation and social events that happen daily with handshaking as a basic and traditional form of salutation. With this in mind, this societal characteristic makes it difficult to control the disease with high transmission potential like COVID-19. Tough measures have been implemented aimed at restricting these events and reducing the possibility of transmission of the disease within the community. These procedures included firm rules prohibiting all of the following until further notice: public gatherings and social events, such as attending prayers in all mosques, weddings, and funerals, social visits to hospitals and prisons, in addition to all sports, facilities, and cinemas, and youth centers also banned shisha (hookah) In cafes, restaurants. Surprisingly, these measures have been stepped on 17 March 2020, including a firm ban on public gatherings of more than 10 people, a ban on intercity travel and all public transportation, and the closure of all shopping malls. Then, on 20 March 2020, a curfew has been announced in the country with a strict ban on the mobility of individuals ( Prime Ministry of Jordan, 2020).

The statistics of COVID-19 in Jordan are publicly announced by government officials and are available on a special website for COVID-19 created for this aim, though the publicly announced statistics do not include any sensitive information about patients. The first case of COVID-19 was recorded in Jordan on March 2, 2020: A Jordanian youth was on a trip to Italy. At confirmation of the first case, national measures were upgraded to reduce the prevalence of COVID-19 and effectively treat it. As of June 30, 2020, there were 1,132 confirmed cases of COVID-19 and nine deaths attributable to the disease (WHO, 2020).

According to the Facebook site, the use of hashtags on Facebook has helped Facebookers in publishing the most important developments in the virus globally and locally, through the use of hashtags such as #COVID-19 and #CORONAVIRUS.

On the other hand, the use of the hashtag on Facebook helped to spread awareness among people in terms of health, which through the publication of information about the symptoms of corona virus or from an educational aspect in sharing posts that use the preventive measures used to limit the spread of the virus, for example of these hashtags, #Stay Home, #Together At Home, #Stay Safe.

As is the case all over the world, one of the main reasons for spreading awareness among Jordanian Facebook Facebooker was through sharing posts containing hashtags related to Corona virus, which include government decisions and the most important health developments issued by the Jordanian Ministry of Health.

### **Statement of the problem**

Several studies have been done to study behavioral differences between men and women. Knowing these differences helps to understand the feelings of individuals and the characteristics of the societies in which they live. For instance, Giudice (2015) offered a concise the gender differences of personality, social interoperability and rivalry activity, and nonverbal and verbal communication.

Until now there is no study attempted to reveal the publication of hashtags among Jordanian Facebookers and show the impact that they have left on them in a sensitive crisis such as the Corona pandemic. Accordingly, it is worth revealing the underlining factors that evoke Hashtag on social sites of taking into consideration gender-effect on such phenomena.

### **Research Objectives**

This study will try to achieve the following objectives:

1. Determine the most common hashtags on Facebook used during the Corona pandemic
2. Discover the relationships between motives and the hashtags related to corona virus.
3. Ascertain any gender differences in the use of Facebook's hashtags by Jordanian Facebookers.

### **Research Questions**

1. What are the most common hashtags on Facebook used during the Corona pandemic?
2. Are there any significant differences between males and females due to the hashtags practices during the Corona pandemic?
3. What are the expected benefits of using corona virus hashtags on Jordanian Facebookers?

### **Significance of the study**

Most of the previous studies focused on gender differences in the use of social media in Western societies and did not pay any attention to Arab society in general, and Jordanian society in particular. Therefore, it is useful to understand the differences in the emotional aspect of the use of hashtags among Jordanian male and female social media users. The results of this study will open new doors to understanding how Jordanian Facebookers are using Facebook's hashtags. Consequently, the current study aimed to investigate the differences in emotions associated with the use of hashtags related to the epidemic of corona virus among Jordanian Facebook users.

## Operational Definitions

1. Gender Differences are the behaviors, habits, standards, and expectations correlated with the sex of a person by a community or culture, thus the social distinctions between male and female, the definitions attributed to being feminine or masculine (Open Education Sociology Dictionary, 2020).
2. The hashtag is a term or a word before the symbol (#) or more known as a figure or a pound sign. A group of micro-bloggers introduced it to build a flow of knowledge about a defined subject or phenomenon (Solomia Fedushko, 2019).
3. Facebook is the most popular free social media site that enables authorized members to create profiles, upload photos and video, send share documents with friends, family, and colleagues (Rouse, 2020)

## Limitations of the Study

This study carries certain limitations that have been followed strictly throughout the research:

1. The fact that the entire research revolves around the hashtag that is associated with health situations of Jordanian at Corona virus epidemic on Facebook.
2. Gender in this study is depicted as a moderating variable.
3. The hashtags that are termed in this study are the ones that are posted on Facebook and not any other social media channel.
4. The final restriction that is intensely limited in terms of this study highlights the fact that this study incorporates positive and informative hashtags as a whole.

## Literature Review

Several previous research that studied the influence of personality on social networking sites and gender differences on the social network have discovered that men and women have a lot of certain ways in communication on social networking sites depending on their thinking, interests, and emotions.

William James and Carl Lange have developed a theory in the 19th century called "James-Lange Theory of Emotion", suggested that responding and the reaction of the brain to the information may lead to emotional experiences. Their theory also suggests a four-step process of emotional responding, starting from presenting action to motivation, explanations of the motivation, and lastly, take the emotion. However, the theory has been developed over time and argued that the information is the explanation of several responses and perceived emotions and activities, therefore others assumed that the behavior reactions come before the subjective response of the emotion (Bruce et al., 2009).

The theory of U&G was focused on the functionalist viewpoint of mass media communication (Luo, 2002) and it could be defined by a deductive approach of establishing categories of various media motives and functions (Weiser, 2002). A fundamental assumption of the U&G hypothesis is that people are interested in internet use and communicate extremely with the contact system by creating a profile

Aisar Salihu Musa and others (2016) said in their study, U&G Theory has been the important communication theories for generations that explain what people are doing with the media. The research shows also that social networking outlets have resurrected the aspects of the U & G hypothesis and created a plethora of internet applications that the mainstream media may never include. They added the participants (98.2 percent) used social networking to connect, interact, exchange news, study, express views, build ties, and make friends with other countries. Between the voters, Twitter and WhatsApp were the most favored social media sites. Furthermore, exhibitionism, a motivation of utilizing SNS for the intent of popularity, thoroughly regulated the interaction between the need for recognition and the human desire motivating non directed self-disclosure. Such findings have consequences for the processing of U&G and work into digital technologies (Stefanone, 2016).

The findings of Zhang Ye (2017) indicate that female users prefer to use emotional and optimistic hashtag definitions when contrasted with male users. This research also shows a strong connection between the number of hashtags used and the number of followers as well as the number of likes. The effect shows that greater male and female tweeters use somewhat similar vocabulary in their messages, but strong variations have been found in the usage of hashtags and usernames, in female tweeters citing significantly more programs and organizations with a persuaded attitude towards human activity effect on climate change, while male tweeters discuss considerably more private individuals and user's skeptical mentality. The differences were only greater when the same author excluded re tweets and repeat tweets from the details, showing how re tweeting can have a major effect on the results (Hellsten, 2015). Rosalin Tomorn (2019)

mentioned in her study, gender and ethnicity concentrated mainly on their usage of inclusive hashtag definitions and the various hashtags that have been used depending on individual emotions on Instagram.

There were clear differences in the use of hashtags, with female tweeters indicating considerably more initiatives and groups with a convinced attitude towards caused by human activity effects of climate change, while male tweeters indicate considerably more private individuals and usernames with a wary attitude (Kim Holmberg, 2015).

Keeping in view the hashtag studies, it can be argued that the recent approach focuses mainly on the promotional prospects in the positive relationship specifically between the number of followers and the number of hashtags (Chua & Chua, 2017). Furthermore, it has been explored that popular and attractive hashtags in a post result in engaging a wider audience by having a good number of followers easily.

Similarly, hashtags are considered as one of the types of metadata tags that give a huge boost not only to the content visibility, but these hashtags also make sure that the posts or photos with the incorporation of attractive hashtags reach a wider number of Facebookers. It has been identified that by using hashtags in a post, the Facebookers are hugely attracted by the post as a result of which the post gets greater accessibility and readability as well (Åberg, Koivula, & Kukkonen, 2020). Therefore, recent studies have revealed the fact the use of hashtags helps Facebookers to gain more followers and likes by improving the content of posts.

In a study by Zarei, et al. (2020) which aimed to represent the COVID-19 dataset of Instagram, the data have been collected from January 5 to March 30 of 2020 and covered 5.3K posts including 18.5K comments, the posts published by 2.5K users mostly the posts which have been covered was in the English language. They found that the most hashtag was #corona virus where 4.4K posts have this hashtag in about 83% of the whole posts the have been covered. Following with hashtag #COVID-19 or COVID19 which repeated in 1.5K posts with the percentage of 28.3% as is evident, there is a noticeable difference between the two percentages. Examples of hashtags that have been observed frequently: #corona which repeated in 1000 posts with about 19%, and #stay home repeated in 537 posts with 10%, and other hashtags like #quarantine, #COVID, #Virus, and #Love. This does not include the hashtags mentioned in posts written in other languages. They conclude that social media became a vital tool in publishing public health information and maintaining contact between people.

Alqurashi, Alhindi, & Alanazi (2020) describing the first Arabic dataset on Twitter related to COVID-19, have collected data from January 1 to April 1, 2020. They aimed to help the researchers and policy-makers in studying various social issues related to the corona epidemic. In addition to many other tasks related to information sharing, behavior change, rumors, and misinformation published. They collected approximately 3,934,610 tweets, and they have found that the most frequently Arabic hashtag was as follow:

- 1- #كورونا (Corona) which repeated in 949,531 tweets with 24% percentage.
- 2- #حُك في البيت (Stay at home) at 768,196 tweets with about 19.5%.
- 3- #الصين (China) repeated in 287,509 tweets at 7.3%.

Following with other hashtags with different percentages like فيروس كورونا (Corona virus), #كلنا مسؤول (We are all responsible), #19-كوفيد (COVID-19), #حجر منزلي (Home quarantine) and a lot of terms related to corona epidemic. They have observed that the number of re-tweeting increased significantly in late March. This is likely because of the massive growth in specific COVID-19 cases worldwide, including Arabic-speaking countries.

Kouzy, et al. (2020) analyzed the amount of misinformation that is posted on Twitter that is related to the corona virus epidemic. They searched Twitter with 14 popular hashtags and keywords related to the COVID-19 epidemic such as (#Corona, #Corona virus, and #COVID19). Then they have summarized and evaluated the individual tweets looking for the wrong information compared to the verified and revised resources. Descriptive statistics have been used to compare hashtags and terms, to identify individual tweets and account properties. The study included a total of 673 tweets. Most of the tweets were posted by informal individuals/groups (66%), and 129 (19.2%) belonged to verified Twitter accounts. The majority of the tweets included contained dangerous content (91.2%); 548 tweets with 81.4% included actual information related to the COVID-19 epidemic. About 70% of the tweets processed medical/public health information, whilst others were related to financial, social, and political factors. In total, 153 tweets at the percentage of 24.8% contained false information, and 107 (17.4%) included unconfirmed information related to the COVID-19 epidemic. The rate of false information was higher among informal accounts of individuals/groups at 33.8% ( $p < 0.001$ ). Tweets from unverified Twitter accounts contain more false information with 31.0% vs. 12.6% for verified accounts ( $p < 0.001$ ). Tweets from public health/healthcare accounts scored the lowest unverifiable information at 12.3% ( $p = 0.04$ ). The keyword "COVID-19" has the lowest rate of wrong information and unverifiable

information, while the hashtags # 2019\_ncov and #Corona were related to the falsest data and unverifiable content, respectively.

In Thelwall S. & Thelwall M. (2020) study, they aimed to identify the reactions regarded to gender differences about COVID-19 on Twitter. The study analyzed 3,038,026 tweets in the English language about COVID-19 from 10 to 23 March 2020. The results show that females are more likely to Tweet about the COVID-19 virus in the family context, social spacing, and health care while males are more likely to Tweet about cancellations of sports.

## Methodology

### Research Design

The design of this research is quantitative because the instruments used in the research offered data collection of numerical values. The instrument used was a questionnaire. This study was a survey since it was limited to a certain group of Jordanian facebookers in a certain context which is Jordan in our case. Other than including the qualitative form of analysis, this work often uses a descriptive approach, and that is a quantitative method that explains items extracted solely from the data in the context of the test. The descriptive approach is applied since there is a concise description of the data analysis.

### Sampling Methods

The analysis performed in this analysis was focused on a data set obtained from the Jordanian facebookers. The data used is thus classified as primary data because the researcher gathers the data directly from the target of review. Data were collected from 232 questionnaires, 104 male users, and 128 female users. The study sample was from hashtags produced by users who used English and Arabic with the hashtag related to Corona virus. The sample for this study accuracy of 9 hashtags with #Corona virus posted on Facebook, collected from April through May 2020.

As it can be seen from Table 1 below, most of the participants were between the ages of 25-30 years (42.9%), 38.6% of them were between the ages of 30-35 years, 18% of them were between the ages of 20-25 years. The results also showed the wide usage of Facebook among youth in Jordan and this platform considers the most favorite social media platform among other different platforms to communicate with each other and sharing information and other entertainment.

Table No.1 Age of Participants

<i>Age</i>	<i>Frequency</i>	<i>Percent</i>
<b>20 – 25</b>	42	18%
<b>25 – 30</b>	100	42.9%
<b>30 – 35</b>	90	38.6%
<b>Total</b>	232	100%

Table No. 2 shows that the majority of the participants had a bachelor's degree (70.4%), 18.9% of the participants had a master's degree, and 10.3% of the participants had a Ph.D. The results revealed the highest frequency of educational levels of the sample was bachelor which explains the leisure time of this category comparing to other educational levels.

Table No.2 Educational Attainment of Participants

<i>Degree</i>	<i>Frequency</i>	<i>Percent</i>
<b>Bachelor</b>	164	70.4%
<b>Master</b>	44	18.9%
<b>PhD</b>	24	10.3%
<b>Total</b>	232	100%

### The instrument

The researchers, and to achieve the purpose of the study, prepared a questionnaire. The demographic part of the questionnaire included four items related to the participants' gender, age, and educational attainment (See Appendix 1). Ten statements were included in the questionnaire with 5 Points Likert-scale options namely (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree, (5) Strongly agree.

### Validity and Reliability of the Questionnaire

To measure the validity of the attitudinal questionnaires, that were used in this study, a jury of four TEFL specialists in different fields in the curriculum and instruction, linguistics, and applied linguistics in some of the Jordanian universities as well as Saudi universities, and other five colleagues who hold a Ph.D., from the Department of Curriculum and Instruction at Jadara university, was asked politely to examine it and to provide the researchers with their comments and suggestions to improve the questionnaires. The researchers took all their suggestions and notes into consideration when writing and adopting the final draft of the questionnaires. Cronbach's alpha coefficients were used to find the reliability of the questionnaire. Table 3 shows the reliability score, which was under 1.0, hence acceptable:

Table 3: Reliability Statistics

Cronbach's Alpha	N of Items
.605	11

### Data Collection

The researcher has gathered the initial hashtags to eventually transcribe the texts and display the details that manually present the community, to see the differences in Facebook characteristics of the male and female language. The researcher used purposeful sampling which only examines #Corona virus hashtags shared by users where gender can be defined as either men or women.

### The Questionnaire Correcting Method

To find the degree of acceptance, the researcher used the following model (Oxford, 2003) that classified the means into three levels according to their categories.

Low 11 - 2.33
Moderate 2 2.34 - 3.66
High 33.67 – 5.

### The Results and their Discussion

The first question asks about the most common hashtags on Facebook used during the Corona pandemic? The researcher calculated the frequencies and percentages of the dimensions. Table 4 presents the results.

Table 4 Means and Standard Deviations for the most common hashtag used on Facebook during the Corona crisis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	# Corona Jordan	21	9.0	9.1	9.1
	#بالييت_خليك	62	26.6	26.7	35.8
	#ويتزول_شدة	14	6.0	6.0	41.8
	#بالدار_خليك	53	22.7	22.8	64.7
	#stay home	38	16.3	16.4	81.0
	#Stay Safe	9	3.9	3.9	84.9
	#الأردن_كورونا	11	4.7	4.7	89.7
	#شامل_حظر	16	6.9	6.9	96.6
	#covid19	8	3.4	3.4	100.0
	Total	232	99.6	100.0	
Missing	System	1	.4		
Total		233	100.0		

Table 4 presents the different hashtags used on Facebook while the COVID-19 which differs from the users. For example, the hashtags of #خليك\_بالييت occupied the most common hashtag was exchanged between the users with a percentage of 26.6 % followed by the hashtag of #خليك\_بالدار with a percentage of 22.7 %. And the lowest hashtags used in the crisis of COVID-19 was #covid19 itself with only 8 frequency of the total sample of 232. This result indicates the preference of Facebook using Arabic hashtags rather than English ones such as #stay home or #stay safe.

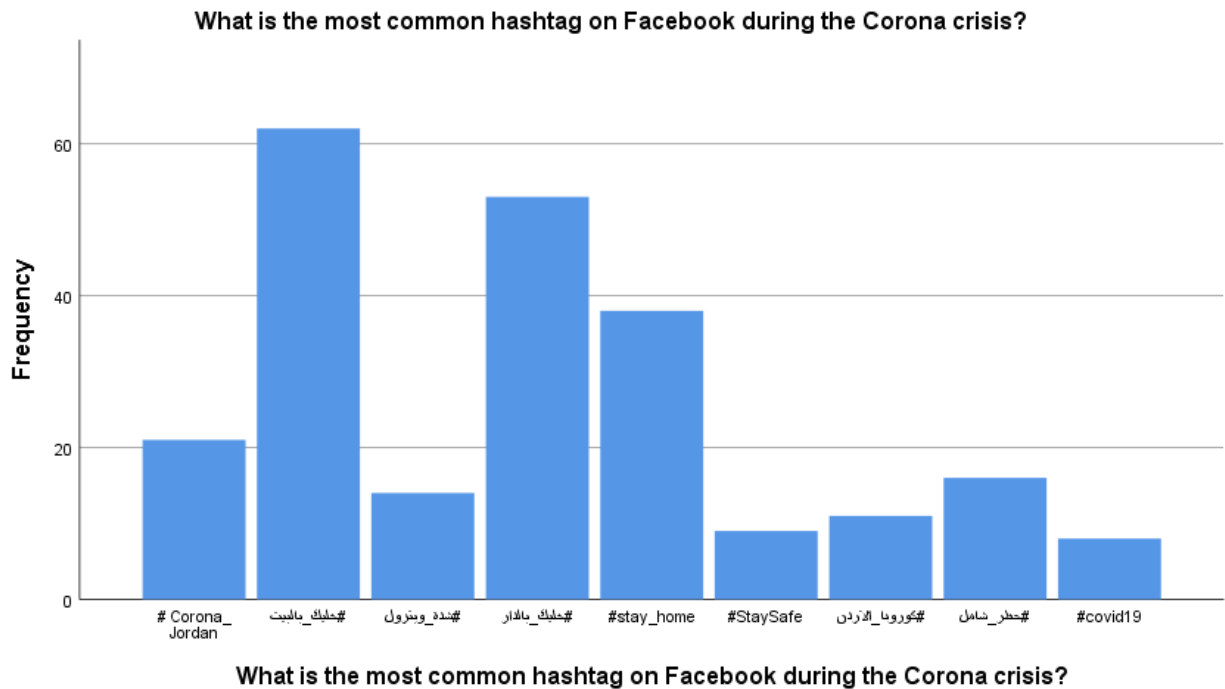


Figure 3 describes the results of the above table which includes several hashtags with different responses and the Arabic version have occupied the most commonly used hashtags among other languages hashtags because most of using Facebook didn't understand English or they like to use their language as cultural support for their mother tongue. As seen hashtag #Corona Jordan and الأردن\_كورونا# (which have the same meaning) used to describe the status of the Corona epidemic in Jordan but it just used with 9% which means not a lot of Jordanian facebookers prefer to use it.

While the hashtag خليك\_بالبيت and خليك\_بالدار# which have the same meaning of hashtag # stay home but in the Arabic language have the highest percentage, which used to inform people to stay home in aim to achieve safety and social dimension. A lot of facebookers used these hashtags in sharing their diaries, their tips for fun activities applicable at home.

#شدة\_وتزول which mean (Distress and will be gone) it is a sentence said by His Majesty King Abdullah II, King of Jordan, to tell the Jordanians that, God willing, Jordan will overcome this Distress that live in. And to promise them that soon, prayers will be held in mosques and churches, life will return to the streets and markets, and workers will return to their factories and employees to their institutions and sons and daughters going out every morning to their schools and universities. Soon, all of this will happen. "Distress and it will be gone". #stay safe commonly used to encourage and urge people to self-isolate to stay safe; most of the people on Facebook used it as a hashtag with their pictures wearing masks and gloves, as an encouragement to others to do so. Also, many facebookers have used #Stay Safe and #Stay Home to post about what they were planning during the lockdown as a way to inspire those who tend to escape from the door.

#حظر\_شامل (Comprehensive lockdown) was used by Jordanians in the interval of the comprehensive lockdown imposed by the government, to express boredom and exhaustion especially during the Eid al-Fitr first day. And last one #COVID-19 which has the lowest percentage of use among Jordanian -according to the survey results- it has been used for everything related to the Corona epidemic, such as news, rumors, advice, and medical information about the virus.

There are some hashtags repeated but at very few percentages such as:

#قانون\_الدفاع (Defense law) It is a law states that if something happens that calls for the defense of the homeland in the event of an emergency, a law will be issued in the name of the defense-law that will give authority to the person designated by the law to take the necessary procedures, including the power to stop the laws of the regular state to secure the defense of the country. This law came into effect in Jordan on March 17, 2020, and the Jordanians have used it as a hashtag on social media, announcing that commitment to it.



#تباعِد\_اجتماعي or #social distance which having the same meaning, everyone did their best to adhere to the government's self-quarantine and closure regulations. By doing this, they used these hashtags to promote social distraction self-isolation for helping the community.

#working\_from\_home this hashtag has been used to describe work from home and it means that you bring your work to your personal space, which means that there are comfortable sofas instead of computer chairs. Many people have already experienced working from home, so everyone wants a way to share their experiences. Some of them included pictures of his workplace at home or personal photos in the framework of work at home with comfortable clothes.

#صحتك\_بتهمنا (Your health is important to us): This hashtag was used within the announcement, of ministries and the government as a declaration that the health of Jordanians is the most important thing representation of the statement of His Majesty King Abdullah II, "the human is the most precious thing we have".

#المساجد (Mosques) some Jordanians have used it to protest against the closure of mosques, and some of them have used it as an expression of their longing to pray in the mosque, especially during Ramadan.

Also, some have created a hashtag of installing more than one term, such as #الاردن\_كورونا (#Korona\_Jordan) accompanied by news related to Jordan or an expression of the affiliation, or #كورونا2020 (#Corona2020) as the year 2020 became associated with the crisis of Corona, and it became called it the year of Corona.

**The second question of the study was:** Are there any significant differences between males and females due to the hashtags practices during the Corona pandemic? The researchers, and to answer the second question, used the T-test to examine if there are any statistically significant differences in the participants' perspectives towards the importance of hashtags practices during the Corona that could be attributed to gender.

Table 5. Mean differences in gender

gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
male	128	1.97	.793	-.024	.981
female	104	1.97	.743	-.024	.981

Table 5 presents gender differences between males and females using the analysis of independent samples t-test which indicates no gender differences associated with using hashtag related to corona virus epidemic. Therefore, the results confirm that both genders are the same in their emotion while using hashtags connected to the COVID-19 crisis and they hold the same emotions towards this phenomenon ( $t = -.024$ ,  $p > .05$ ). Moreover, using the hashtags among various social media platforms showed outstanding similar significance with no favor of any group. Thus, there was no gender difference between males and females observed in terms of using emotions in their hashtag posts during the COVID-19 pandemic. For more details table 6 presents mean scores, standard deviations for the study variables in groups of males and females as well as the t statistic.

Table 6. Mean scores, standard deviations, and t statistics of males and females.

	gender	N	Mean	Std. Deviation	Sig.	t
I think using hashtags is useful on social media	male	128	1.64	.482	.009**	-1.303
	female	104	1.72	.451		-1.312
I use hashtags in my Facebook posts	male	128	1.61	.490	.430	-.392
	female	104	1.63	.484		-.393
I prefer not to use hashtags in my Facebook posts.	male	128	1.75	.435	.012*	1.291
	female	104	1.67	.471		1.280
I think that using hashtags will spread the word more widely among Facebook users	male	128	1.66	.474	.548	-.299
	female	104	1.68	.468		-.300
I add hashtags to my posts during the Corona crisis	male	128	1.63	.486	.556	.298
	female	104	1.61	.491		.298
I think that the Corona crisis has increased the use of hashtags among Facebook users.	male	128	1.62	.488	.495	-.714
	female	104	1.66	.495		-.713
I think that male users prefer to use hashtags more than female users?	male	128	1.58	.496	.020*	-1.176
	female	104	1.65	.478		-1.180

\*  $p < .05$ , \*\*  $p < .01$

In this table, the independent samples Student t-test analysis showed that females considering using hashtags useful on social media was significantly higher than males' ( $t = -1.312$ ,  $p < .01$ ). There were also several gender differences in participants' using hashtags in their Facebook posts. Females were more likely to treat Facebook as integral part of life ( $t = -.393$ ,  $p > .05$ ). Moreover, preferring to use the hashtags in other platforms' accounts revealed a considerable trend toward significance in favor of males ( $t = 1.291$ ,  $p < .05$ ). There were no gender differences between males and females observed in terms of adding hashtags to their posts during the Corona crisis ( $t = -.393$ ,  $p > .05$ ). Also, little differences between these two groups ( $t = -.299$  and  $-.300$ ,  $p > .05$ ) for respectively male and female in terms of they perceive that using hashtags will spread the word more widely among Facebook users. While thinking that the Corona crisis has increased the use of hashtags among Facebook users was a favor for males ( $t = -.714$ ,  $p > .05$ ). And the gender differences for thinking that male users prefer to use hashtags more than female users male was for female ( $t = 1.180$ ,  $p < .05$ ). in general, we notice that there was no gender difference between males and females observed in terms of hashtags practices during the Corona pandemic.

These proportions and numbers cannot be judged by the fact that most Facebook users who used hashtags at the time of the corona epidemic are males; these numbers represent the community of this study. This results in conflict with Thelwall.M & Thelwall.S (2020) where they demonstrated that Females are more probable to tweet and using hashtags about Corona virus in a family context, health care, and social dimension while males are more probable to tweet and using terms about cancellations of sports, Corona virus global spread and politic responses.

Thus, the main aim here is to show any gender differences that translate into using hashtags related to COVID-19 on Facebook. In all countries not just in Jordan, greater male attention in sport is recognized (Plaza, Boiché, Brunel, & Ruchaud, 2016), as well as males appear to be discussing politics more or at least directly.

About 50% of participants using Facebook hashtags which is related to Corona virus to share the news with the largest number of Facebook visitors, females were further likely for using the hashtag #stay home where they stayed at home as far as possible. As well as mentioned the healthcare hashtags in the aim of the welfare of their families and protect them due to Corona virus spread, where they shared various tips related to health care, cooking, caring for the skin as well as their diaries with their families and sharing them to the kitchen. On the other hand, the greater focus of males on corona virus-related sport can be seen as evidence that males were less serious about the spread of the disease in the early stages. Regardless of whether this was true, the sport was an important factor in the reaction to the Corona virus for the majority of males. Whereas, the matches and sporting events was one of the political events that were largely discussed by the males during the period of the spread of the Corona epidemic. Also, they have weary and bored with the comprehensive breakdown period, as they were unable to go to work or meet their friends.

**The third question of the study was:** What are the expected benefits of using Corona virus hashtags on Jordanian Facebookers? To answer this question, the researchers measured the frequencies, percentages, and means.

Table 6. Descriptive analysis

Descriptive analysis of male respondents		Frequency	Percent
Valid	Increase engagement on your post	42	32.8
	Share the news with the largest number of Facebook visitors	48	37.5
	Increase your followers on your page	38	29.7
	Total	128	100.0
Descriptive analysis of female respondents		Frequency	Percent
Valid	Increase engagement on your post	30	28.8
	Share the news with the largest number of Facebook visitors	47	45.2
	Increase your followers on your page	27	26.0
	Total	104	100.0

Table 7 shows that the purposes of using the hashtag related to the Corona crisis in the posts varied from two genders into different purposes, while the majority of using the hashtag from the male for sharing the news with the largest numbers of Facebook visitors 48 (37.5), and the least usage of hashtag among the same group was for increasing their followers on their page 38 (29.7). on other hand, the female group results indicate the most purpose of using hashtags was for sharing the news with the largest number of Facebook visitors 47 (45.2), and the least purpose for the same gender was for increasing their followers on their page 27 (26). This indicates various intentions of using the hashtag in Facebook which also reflect different goals and aims of the users behind use the hashtag. Also, this could interpret the benefits of adopting the hashtag which each group looking for certain benefits and outcomes want to reach and achieve of this usage. Supporting answers to the research questions the research objectives which aim to explore the gender differences between male and female in using the hashtag in their Facebook posts during the pandemic of COVID-19, while the study results show the difference in the purposes in using the hashtag in this worldwide health crisis, in the same time there was no gender differences in the emotion of hashtag in this epidemic.

## Conclusion and Recommendations

### Conclusion

In the participants who answer the questionnaire, the majority was males were they (128) out of 232, with a percentage of 55.2%, and the females were 104 facebookers at 44.8 % percentage, and there are more than 80% of participants believes that the men using the hashtags more than the females. These proportions and numbers cannot be judged by the fact that most Facebook users who used hashtags at the time of the corona epidemic are males; these numbers represent the community of this study. This results in conflict with Thelwall.M & Thelwall.S (2020) where they demonstrated that Females are more probable to tweet and using hashtags about Coronavirus in a family context, health care, and social dimension while males are more probable to tweet and using terms about cancellations of sports, Coronavirus global spread and politic responses.

About 50% of participants using Facebook hashtags which is related to Corona virus to share the news with the largest number of Facebook visitors, females were further likely for using the hashtag #stay home where they stayed at home as far as possible. As well as mentioned the healthcare hashtags in the aim of the welfare of their families and protect them due to Corona virus spread, where they shared various tips related to health care, cooking, caring for the skin as well as their diaries with their families and sharing them to the kitchen. On the other hand, the greater focus of males on corona virus-related sport can be seen as evidence that males were less serious about the spread of the disease in the early stages. Regardless of whether this was true, the sport was an important factor in the reaction to the Corona virus for the majority of males.

Whereas, matches and sporting events was one of the political events that were largely discussed by the males during the period of the spread of the Corona epidemic. Also, they have weary and bored with the comprehensive breakdown period, as they were unable to go to work or meet their friends.

## Recommendations

According to the results mentioned above, the researcher recommended the following:

- It is highly recommended to conduct more studies on the differences between the genders in the use of hashtags on social media because of the lack of research in this area, especially in Jordan.
- For more accurate data, the researcher recommends searching the Jordanian Facebookers database to obtain information directly from their publications, which will help more in understanding the differences in using hashtags between males and females.
- The existing studies have examined the use of the hashtag on Instagram and Twitter during the Corona epidemic interval, so the researcher recommends conducting studies about Facebook.

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### Appendix A

Part 1						
Gender	<input type="checkbox"/>	Male	<input type="checkbox"/>		Female	
Age	<input type="checkbox"/>	20-25	<input type="checkbox"/>	25-30	<input type="checkbox"/>	30-35
Degree	<input type="checkbox"/>	Bachelor	<input type="checkbox"/>	Master	<input type="checkbox"/>	PhD

Statements	Totally Agree	Agree	Disagree	Totally Disagree
<b>The expected benefits and purpose of using hashtags related to the Corona crisis in your posts</b>				
I think using <u>hashtags</u> is <u>useful</u> on social media				
I use <u>hashtags</u> in my Facebook posts?				
I prefer not to use <u>hashtags</u> in my Facebook posts.				
I think that using <u>hashtags</u> will spread the word more widely among Facebook users				
I add <u>hashtags</u> to my posts during the Corona crisis?				
I think that the Corona crisis has increased the use of <u>hashtags</u> among Facebook users.				
I think that male users prefer to use <u>hashtags</u> more than female users?				
I think using the <u>hashtags</u> related to the Corona crisis increase engagement on your post				
I think using <u>hashtags</u> share the news with the largest number of Facebook visitors				
I think using <u>hashtags</u> increase your followers on your page				
<b>The most common hashtag on Facebook during the Corona crisis</b>				
# Corona Jordan				
خلّك بالبيت #				
شدة وينزول #				
#خلّك بالدار				
#stay home				
#خلّك بالدار				
#Stay Safe				
#كورونا الأردن				
حظر شامل				
covid19				