

Article

Factors Indicating Media Dependency and Online Misinformation Sharing in Jordan

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Abstract: Although social media is a vital platform in our life, it is blamed for poor efforts to moderate content included mis/disinformation and fake news. This could have an impact on its legacy and on sustainability in society in the long term. This research examined the role of social media in spreading misinformation during the COVID-19 outbreak in Jordan. A cross-sectional design questionnaire (350 responses) was used. The results revealed that social media played a key role in updating users with COVID-19 information. However, the availability of misinformation remained highly prevalent. Respondents revealed that they relied heavily on social media for information gathering and knowledge sharing about COVID-19 updates. The role of behavioural intention remained prominent and highly significant for these two reasons. Their behavioural intention was linked to the sharing of unchecked information, suggesting that online information in Jordan needs greater regulation to reduce the spread of misinformation.

Keywords: communication; knowledge sharing; social media; COVID-19; misinformation; fake news; Jordan



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1. Introduction

Misinformation during the current technology evolution and the development of smart devices are a major topic and a concern for both official and non-official bodies. Misinformation is unintentional, yet it increases the potential flow of inauthentic information. Yavich et al. [1] attribute it to the wider availability of new media platforms. Data from July 2022 indicated that there were around 180 million internet users worldwide, comprising 67.5% of the total world population, others consider online platforms to provide greater ease of access and usability among people of almost all ages, who use these platforms for different purposes, including information, education, entertainment, and communication [2]. Receiving and sharing information has become one of the most preferred practices, not only enhancing critical thinking capabilities, but also raising questions about the information's authenticity. The rapid spread of misinformation is due to the wider availability of online platforms that can be accessed through remote devices [3]. Today, users enjoy an increased online presence that further raises concerns about misinformation [4]. Ali et al. [5] cite examples of COVID-19 misinformation during 2020–2021 and consider the pandemic to have been one of misinformation as well. Wider availability and greater accessibility, accompanied by perceived ease of use and perceived usefulness, are primary causes of increased online presence and the spread of misinformation [6].

Similarly, social media plays an increasingly dominant role in facilitating communication and interaction, as well as vital news sources. It is perceived as consisting of interactive technologies and platforms that facilitate information gathering and sharing, common interests, and other forms of expression. For instance, in the Arab world, more online users are gathering and sharing information using various social media platforms. The impact leans towards an increasingly large number of users [7,8], with more than 4.5 billion daily [9]. Its legacy lies in its ability to allow users to create their profiles, to share and receive information, and interact directly with others [10].

While social media becomes a source of news, it is still not a totally reliable or trusted platform for different reasons. During COVID-19 for example, social lockdown and calls to work/stay at home led to overwhelming growth in user activities on social media with a view to gain updates and remain connected with others. Yet, it also led to COVID-19-related misinformation, especially in terms of how the virus was spreading, medical advice, vaccinations, etc. [11,12]. In such cases, different online users (official and non-official) used social media to post false cures and misinformation about the virus's spread [13]. It is stated that social media information was viewed more often than information from reliable sources/fact-based content [12]. Such inaccurate information/misinformation has fostered great distrust in governments' efforts and created confusion and panic among the public [14].

Almost everyone, including Jordanians to a large extent, turned to media outlets and social media to obtain information and advice concerning the coronavirus [13]. However, online platforms were confounded by the diverse and conflicting information found on them [15,16], especially regarding the outbreak itself, vaccination developments, and preventive measures implemented by governments [15]. In Jordan, there was a wave of misinformation on social media, which caused huge concern among local authorities, including the Minister of Health, in their attempts to tackle and control these online reports [13,14].

Unlike previous studies on online fake news and misinformation in the West [11,14], this study focused on Jordan as a developing country that remains largely unaware of how information and knowledge about COVID-19 spread and were dealt with in the early period of the pandemic. In particular, it examined Jordanian-educated young adults' perceptions of COVID-19 misinformation on social media to gain a better understanding of their views and experiences regarding such information. Its objectives are to understand the motives behind social media usage, the dissemination of misinformation, and Jordanian users' behavioural intention to gather and share such online content. This study develops a model drawn from media system theory to understand the factors that predict information gathering and knowledge sharing focusing on the COVID-19 outbreak. Finally, it offers suggestions on how to deal with such phenomena in Jordan.

Outline: Section 2 discusses the literature review, focusing on COVID-19 and misinformation, especially in Jordan, as well as knowledge sharing and information gathering regarding behavioural intention. Section 3 provides the theoretical framework based on media system theory. The research methods, with details of data collection, are described in Section 4. Section 5 provides and discusses the findings of the paper. Finally, Section 6 concludes the paper's overall findings and implications, and offers suggestions for future research.

2. Literature Review

2.1. Media Outlets in Jordan

Traditional media in Jordan are not independent, yet they focus greatly on people's well-being, on healthcare, and on sustainable development. Most of these platforms work mainly under governmental control. The rapid penetration of the Internet in Jordanian society has greatly liberalised media usage among Jordanians [17]. Due to the availability and accessibility of the Internet, out of the 10.28 million population, there are 6.85 million daily Internet users in Jordan, with daily social media users comprising 66.8% of the total

population, indicating that Jordanian society is highly digitalised. However, like elsewhere, during the first and second waves of COVID-19, Jordanian online users significantly increased (especially Facebook, YouTube) due to lockdown and certain limitations imposed by the government and by local healthcare authorities.

2.2. COVID-19 and Misinformation in Jordan

COVID-19 became a global pandemic affecting every country worldwide, including Jordan. As of December 2021, there were approximately a total of 1.02 million Jordanian cases with 12,024 deaths reported by [18]. Strict government-issued infection control measures, including wide lockdowns, curfews, mask-wearing, social distancing, and prohibition of large gatherings, helped to delay the first wave of COVID-19. However, these measures were not effective as the cases escalated rapidly later on [19]. The government undertook several strategies and measures to reduce the virus spread, as well as monitoring information, especially through social media platforms [14]. With rising cases globally and in Jordan, the situation became worse with online users spreading misinformation. Note that Jordan has the highest social media use rate (94%) in the Arab world [13] with Facebook (85.5%) being the most popular platform, followed by YouTube (7.81%), Twitter (2.82%), and Instagram (2.04%) [11].

During the early months of COVID-19, the World Health Organization (WHO) issued several warnings about the prevailing misinformation [15]. For example, Tedros Adhanom Ghebreyesus, the WHO's director general, stated that the problem was not the pandemic itself, but the infodemic. Furthermore, El-Elimat [14] found that while some Jordanians (37.4%) accepted the COVID-19 vaccines, the remainder did not want to receive the vaccines, especially those aged 35+. In April 2020, the government issued an emergency decree that criminalised the sharing of news that would cause panic about the pandemic in the media or online, with a penalty of up to three years in prison.

According to Wani et al. [12], misinformation takes different forms, including inaccurate information, lack of authentic proof, biased information, etc. The concept of misinformation here refers to any information/unreliable content spread on social media without the intent to deceive, which is different from disinformation which refers to fake news spread with the intent to deceive [20]. An example of misinformation could be someone, who does not know that certain information is false, spreading it on social media in an attempt to be helpful [21]. Such information, of course, would cause anxiety, panic, confusion, fear, etc. among individuals and the public as a whole.

In the Arab world, the growth and expansion of the Internet and social media has led to these being used as weapons on an unprecedented scale to manipulate public debates [22]. For example, the terms misinformation and disinformation are not novel in the Middle East, particularly in countries that lack trust in state media, confidence in government, democracy, and freedom [15,22]. As Shu et al. [23] state, misinformation usually arises in the presence of ambiguity. Sadiku et al. [24] indicate that false information is a type of misinformation linked to propaganda and has been known for decades [20]. This presents great challenges for the public in learning how to verify information and reliable sources and in understanding the genuineness of news stories before circulating them [25], particularly on social media.

However, social media has been the main channels for misinformation sharing in Jordan [11,13]. For example, Alkhwaldeh and Alemam [26] report that 174 rumours (31% of online rumours in 2020) related to the health sector, especially to the spread of COVID-19 and its transmission and methods of prevention. Misinformation content and rumours include claims that COVID-19 vaccines cause death or paraplegia, modify the genetic code, or are used to track people, that the virus can only infect older adults, and that pets carry the virus and can pass it on to humans [27]. Other examples include the fabrication of pictures showing people dying in the streets in Italy, implying that the domestic government had lost control over the spread of the virus, and the distribution of pictures showing people crying as a result of being infected with the virus, the claim that there was a lack of

isolation units [13], and claims that result in doubts over vaccine safety [14]. Despite most people being aware of the dangers of misinformation, such claims still hindered efforts to counteract the pandemic. For example, much false information prevailed across Jordan, resulting in vaccine hesitancy among the public [14]. As a result, local people avoided the vaccination process, leading to the government refuting this news using authentic and reliable health figures who encouraged the public to get vaccinated [26,28].

Globally, a research report revealed that a total of 361,000,000 YouTube videos and 550 million tweets were uploaded during the year 2020, indicating that information sharing and re-sharing resulted in strong support for misinformation during the healthcare emergency (Pan American Health Organization, 2020). Ali et al. [29] found that there is a strong relationship between social media usage, dependency, information gathering, and the lethality of misinformation. Although every social networking platform contains millions of discussions regarding COVID-19 and preventative measures, much of these contain reliable information that is misinterpreted and misused by social media users, including Jordanians. This resulted in better regulations and laws to tackle misinformation content. As a result, the Jordanian authorities have arrested several online users for posting about COVID-19 while simultaneously suppressing information about the outbreak [13,21]. In this regard, the pandemic is comparatively more fatal due to high levels of misinformation that challenge efforts to sustain normal life activities and values [16].

2.3. Knowledge Sharing, Information Gathering, and Behavioural Intention

Social media is gaining wider appreciation and acceptance even from potential users. This acceptance and incorporation are due to different factors that further impact users' perceptions and information levels in general, e.g., ease of use, usefulness, and shareability. Social media is considered to influence people's attitudes in terms of communicating, interacting, socialising, and sharing opinions and knowledge without any cultural or geographical barriers [30]. They are beyond mere organisational usage, with personal usage now one of their prominent capabilities. This enables users to create profiles, share knowledge, and receive different types of content and information, including misinformation, with online users seeking every potential way to enhance knowledge sharing through social media [31].

Furthermore, Ghazali et al. [32] describe the extended meaning of knowledge sharing through social media platforms, where two or more people communicate with each other through this technology. When knowledge sharing becomes reciprocated, it is much more effective, having an in-depth and prolonged impact on one's perceptions. Similarly, as a significant characteristic of social media, knowledge sharing affects one's behaviour to opt for social media platforms actively. Notably, this knowledge-sharing is based not only on written content, videos, images, and podcasts, but also uses other types of audible and visual content that accompany the social media knowledge-sharing process [33].

Several online platforms, such as Twitter, Facebook, Instagram, Pinterest, blogs, and microblogs, all provide access to the knowledge gaining and sharing process, further adding to the knowledge-sharing value of social media [34]. In this context, Chuang et al. [35] cite an example regarding the impact and role of Facebook as the most popular social platform in Taiwanese educational institutions and business organisations. They found that users' active selection and consideration of Facebook showed the extent to which social networking was popular in the country, especially in terms of sharing knowledge. Such attitudes are linked to users' intention to use different platforms for diverse purposes, including communication, knowledge sharing, and education. Thus, in the knowledge-sharing context, the enhancing of users' intention to use social media is a strategic approach by these digital platforms, providing people with more communication and interaction opportunities. Adnan et al. [36] indicate that people are sharing information and news feeds regarding COVID-19 without expecting any reward from people in return, as they are intending to help others [37].

Factors influencing social media adoption and usage have always been under content consideration, with gathering and sharing information highlighting their usefulness. As essential sources of information, these platforms' users witness factors that influence their behaviour to adopt and utilize certain platforms actively. As a result, the literature has discussed the usefulness of information gathering as one of the primary reasons behind social media usage [13]. For example, technology refers to innovation being accompanied by certain characteristics that make it appealing to others, including information gathering which is strongly attributed to social media platforms [38]. When people can easily get access to information through the Internet, they tend to use and adapt these platforms for relevant purposes, including information gathering [8,39] which is a competitive advantage of social media technology in today's world in that it allows its users to participate in a digital collaborative environment [8].

As argued, official websites, social media users, and citizen journalism-based blogs share information and news regarding the pandemic [13]. This news includes the infection rate inside a country, healthcare measures, and information about vaccination, and thus makes much information more available [14]. This encourages users to keep relying on social media for information-gathering purposes and to stay updated about events (COVID-19). Therefore, we propose the following hypotheses:

H1. *Knowledge sharing (KS) has a positive impact on behavioural intention (BI).*

H2. *Information gathering (IG) has a positive impact on behavioural intention (BI).*

2.4. Behavioural Intention and Misinformation Dissemination

The rapid and easy access to social media platforms has affected how users perceive information and guidance about the virus and its vaccination process, including misinformation. In Jordan, the desire for quick updates about the virus could have led to an increased amount of misinformation during the COVID-19 outbreak. In this regard, Ali et al. [5] made a comparison with previous disease outbreaks, such as H1091, SARS, MERS, and Ebola, as these were not accompanied by rapidly spreading misinformation. Information resources were limited, and sharing and re-sharing behaviour was also finite, which helped users to cope easily. In a panel-based study in the U.S., Lazer et al. [40] found that 40% of URLs shared in the US on Twitter were from unknown sources containing information related to COVID-19, vaccines, and cases worldwide. Furthermore, millions of tweets were retweeted during the first three months of the outbreak, with most of these being from unreliable sources and re-shared bluntly by Twitter.

A study conducted by Al-Zaman [39] related to information-sharing behavioural intention resulting in misinformation spread in India through Facebook. This revealed that 67.2% of news about possible medications and healthcare measures, including home-based medicines and their preparation to avoid virus transmission, was completely false. A total of 47.2% of news was based on YouTube videos, audio messages, and other audible content. Barua et al. [41] examined the behaviour of social media users accessing information-sharing in Bangladesh and found that almost all the information was about different medicines that could treat the virus. Not only did people re-share the information with others, but they also suggested that others read and re-share the information. Misinformation, therefore, was not a new phenomenon, yet observed incidences increased during COVID-19 due to increased social media dependency for information-gathering and knowledge-sharing purposes. The assumption here is that the benefits of social media are also accompanied by disadvantages such as the spread of misinformation from inauthentic digital platforms [36].

H3. *Behavioural intention (BI) has a positive impact on COVID-19 misinformation dissemination (MD).*

2.5. Demographics and Misinformation Spread

As noted earlier, misinformation has remained one of the major issues during the COVID-19 outbreak. Particularly because of the wider availability of social media and other Internet platforms, this issue further harmed efforts to mitigate the impacts of COVID-19 [42]. However, existing literature also indicates a prominent difference regarding the gender and age of social media users and those information gathering, seeking, and misinformation spreading [43]. A study conducted by [44] indicated a clear difference between social media users and the gender of the respondents. They found that males mostly used social media for gaming purposes, while females preferred social media for information-gathering purposes. Age is another primary variable that affects the motivations and usage patterns among social media users [41].

Particularly during the COVID-19 outbreak, this age difference in social media and the spread of misinformation has been widely witnessed by different studies [45,46]. However, studies have seen gender as another major demographical variable also affecting the misinformation spread through social media usage in a variety of ways [47,48]. The increased amount of misinformation during COVID-19 also created several challenges for healthcare workers and policymakers. A study indicating the effect of gender and age on social media, made by Banerjee and Rai [2], also indicated that people from all age groups actively preferred using social media. Yet, young students who were socially isolated were comparatively more independent on these platforms for different purposes. The role of gender also remained significant in a study conducted by Ali [29], where the relevant demographic variable intervened in information-gathering and sharing behaviours among young university students in Pakistan.

H4. *Gender has a positive indirect impact on COVID-19 misinformation dissemination (MD).*

H5. *Age has a positive indirect impact on COVID-19 misinformation dissemination (MD).*

3. The Theoretical Framework

Media System Dependency Theory

This study is supported by the media system dependency theory proposed by Melvin DeFluer and Sandra Ball-Rokeach [49]. This states that, as mass media are rapidly evolving, their impacts on audience behaviour is an obvious phenomenon indicating an explicit media dependency among people [49]. Notably, dependency is defined as a phenomenon in which one party is dependent on a need to be fulfilled by the other party, e.g., information and knowledge. In the new media era, for example, as mentioned above, social media technology supports knowledge and information revolving within an organisation. The process of information flow is simple, direct, and easily accessible even if there is a long hierarchal system [50]. As noted by Ha et al. [51], social media consumption directly indicates our increased dependency on digital platforms, which means that users depend on social media for different reasons and purposes. In Jordan, as in other countries, although entertainment remains a dominant factor, educational and informational support and assistance are other, stronger factors that have accelerated social media dependency among the younger generation. This means that social media is also affecting users' lives. Studies have witnessed social media dependency and its effects on online users' perceived information. Thus, the current research argues that the primary factors increase social media dependency among Jordanian users, affecting their behavioural intention to actively adopt and incorporate digital platforms in their daily life activities.

4. Materials and Methods

4.1. Participants and Sample

This study is based on an experimental design that used a pre-structured questionnaire designed to examine social media narratives during the COVID-19 outbreak, focusing on the misinformation perspective, with an anonymous online survey using Qualtrics

(www.qualtrics.com) (accessed on 16 December 2021). Respondents were recruited from one of the largest universities in Jordan, Yarmouk University, using a convenience sample derived from university-level students in the first semester of the academic year 2021–2022. Consent was implied by submission of the completed anonymous survey.

Furthermore, the questionnaire clearly stated the general information about the study objectives. Participation was completely voluntary, and respondents could withdraw at any time. Respondents were assured that no personal details were required, and that their answers would be anonymous and treated confidentially. The survey link was sent to students via their university emails. From the initial distribution of 350 responses, 315 responses were gathered, a rating of 90% (Table 1), as a few questionnaires were discarded for not answering all the questions.

Table 1. The sample features.

Variable	Indicator	Frequency	%
Gender	Male	176	55.9
	Female	139	44.1
Age	<18	52	16.5
	18–20	195	61.9
	21–23	24	7.6
	>23	44	14.0
Residence	Urban	235	74.6
	Rural	80	25.4

4.2. The Questionnaire

According to the purpose of the study, its structure and the operational definition of the constructs were organised. The survey was designed according to the relevant literature and was amended several times to answer the study's objectives (Table 2). The pre-structured questionnaire used in this study was taken from the literature and included four constructs: knowledge sharing (four items), information gathering (four items), behavioural intention (four items), and misinformation dissemination (four items). These variables were measured on a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). Finally, respondents were asked to state their gender, age, and residence.

Table 2. Source of research variables.

Variable	Item	Source
Knowledge sharing	Knowledge sharing is usually on social media.	[52]
	I share what I consider as important on my SNS profiles.	
	I consider that sharing knowledge has a significant impact on people's behaviours.	
	I gather information and then analyse and provide my personal opinion about a certain phenomenon.	
Information gathering	Gathering general information.	[53]
	Gathering pandemic-related information was easy on digital platforms.	
	I found information gathering on digital platforms as these reach a massive number of users.	
	I share information as I receive it.	
Behavioural intention	I have positive behaviour towards social media technology.	[54,55]
	I consider that social media was a facility in our lives during the COVID-19 pandemic.	
	I relied on social media during the COVID-19 pandemic for information purposes.	
	I found digital platforms to actively provide me with information to share with others.	
Misinformation dissemination	I shared information through social media without any further scrutiny.	[56]
	I shared information received from anonymous sources.	
	I shared information about healthcare measures without getting validation from official resources.	
	I forwarded COVID-19-related information to others as soon as I received it from others.	

4.3. Data Analysis

The quantitative approach was used to answer the study's objectives as this is one of the most widely preferred data-gathering tools. Despite the approach itself containing several limitations, the survey method provides highly generalisable results. For the statistical analysis, the study ran both SPSS for the descriptive analysis and AMOS for the structural equation modelling (SEM).

4.4. Empirical Data Assessment

4.4.1. Scale Validation

We applied SEM for data analysis, including measurement model analysis (confirmatory factor analysis (CFA)) and structural model analysis. CFA was used to test the compatibility of the research regarding the reliability validity analysis [54], while SEM was applied to test the path influence among the latent variables. According to Zumbo [57], validation of the measurement model could provide strong generalisability to test the results. Despite this involving many steps, it is widely used in SEM analysis. Thus, the results reveal that all the factor loading (FL) values exceed the designated least value for approving the convergent validity. In addition, the Average Variance Extracted (AVE) values all range from 0.793 to 0.837 (Table 3). Furthermore, it can be seen that the Cronbach alpha (CA) values range from 0.858 to 0.865, and the composite reliability (CR) values range from 0.728 to 0.801, indicating that both the CA and CR values surpass the threshold value of 0.7. Hence, the study concluded that all the items in the measurement model were internally consistent, and that convergent reliability was established.

Table 3. Convergent validity and composite reliability analyses.

Construct	Indicator	FL	LAM	APRIL	AVE	CA	CR
Knowledge sharing	KS1	0.891	0.793	0.206	0.837	0.863	0.728
	KS2	0.886	0.784	0.215			
	KS3	0.871	0.759	0.241			
	KS4	0.700	0.490	0.510			
Information gathering	IG1	0.771	0.594	0.405	0.811	0.858	0.799
	IG2	0.772	0.595	0.404			
	IG3	0.833	0.693	0.306			
	IG4	0.869	0.755	0.244			
Behavioural intention	BI1	0.710	0.504	0.495	0.801	0.860	0.798
	BI2	0.823	0.677	0.322			
	BI3	0.785	0.616	0.383			
	BI4	0.889	0.790	0.209			
Misinformation dissemination	MD1	0.749	0.561	0.438	0.793	0.865	0.801
	MD2	0.732	0.535	0.464			
	MD3	0.849	0.720	0.279			
	MD4	0.843	0.710	0.289			

The study also conducted discriminant validity analysis for its measurement model. This means that, when the multiple indicators of a trait have a certain degree of convergence, those indicators should also be negatively correlated with the measure of its opposing trait [54,58,59].

As noted by Zaiş and Berteş [60], assessment of the measurement model to check the discriminant validity should be a part of the research, especially with exploratory analyses. Despite this also having some limitations, it is an integral part of SEM-based investigation. In this regard, the study first examined the Fornell-Larcker criterion. The observation was that the square of all the AVE values was greater than the correlation matrix given in Table 4.

The Heterotrait-Monotrait ratio was also run and analysed, using the relevant formula, on Microsoft Excel sheet. However, to see all the possible favourable results, the study eliminated some questionnaire items from the list for further analysis (Table 4). Thus, the

overall HTMT value was 0.233, indicating that discriminant validity was also established, and that the study can progress further to test the study model.

Table 4. The discriminant validity analysis.

Items	Fornell-Larcker Criterion				Heterotrait-Monotrait Ratio Scale			
	KDS	IG	BI	MD	KDS	IG	BI	MD
KDS	0.700							
IG	0.699	0.657			0.645			
BI	0.625	0.653	0.641		0.609	0.611		
MD	0.571	0.634	0.640	0.628	0.748	0.589	0.532	

4.4.2. Structural Model Analysis and Hypotheses Testing

To examine the potential variations in the dependable variables, due to independent variables and the structural model's predictive power [61], the study assessed the coefficients of determination R^2 . The R^2 values of all the variables range from 0.401 to 0.626, indicating that the structural model is moderately predictable (Table 5). The results also show that 62.5% of the variation is for knowledge sharing, 40.1% for information gathering, 41.4% for behavioural intention, and 54.4% for misinformation dissemination.

Table 5. Coefficients of determination R^2 .

Variables	R^2	Strength
Knowledge sharing	0.626	Moderately strong
Information gathering	0.401	Moderately strong
Behavioural intention	0.414	Moderately strong
Misinformation dissemination	0.544	Moderately strong

According to Grapentine [62], path analysis is an important step in examining the study variables' causal relationships. These relationships were proposed through research models that were further statistically calculated. Thus, the study examined the causal relationships between the independent and dependent variables. Figure 1 shows the conceptual framework. As shown in Figure 2, the outcome analysis finds a strong significant relationship between knowledge sharing and behavioural intention ($t = 10.252$, $p > 0.000$). However, the relationship between information gathering and behavioural intention remains weak ($t = -2.544$, $p > 0.011$), which rejects H2.

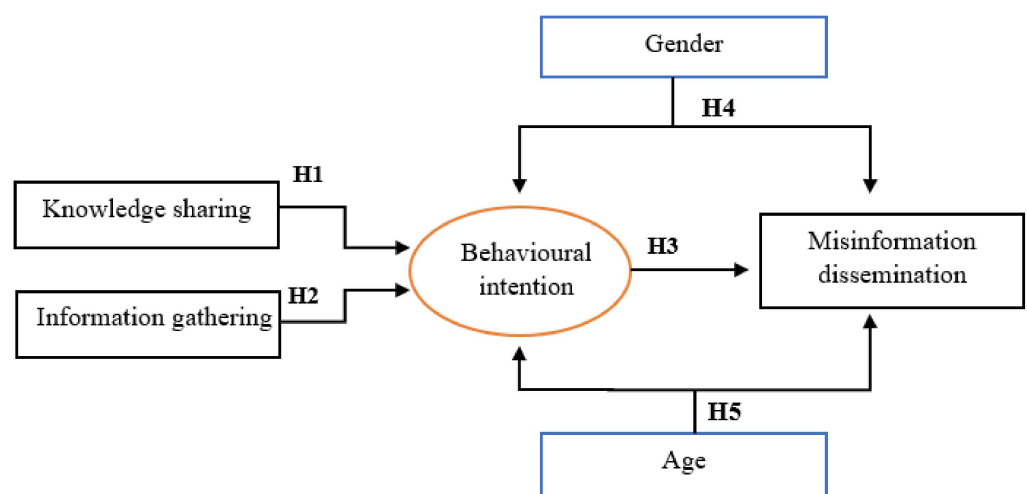


Figure 1. The conceptual framework. (Salloum et al., 2021; Sayaf et al., 2021; Al-Rahmi, Shamsuddin et al., 2022).

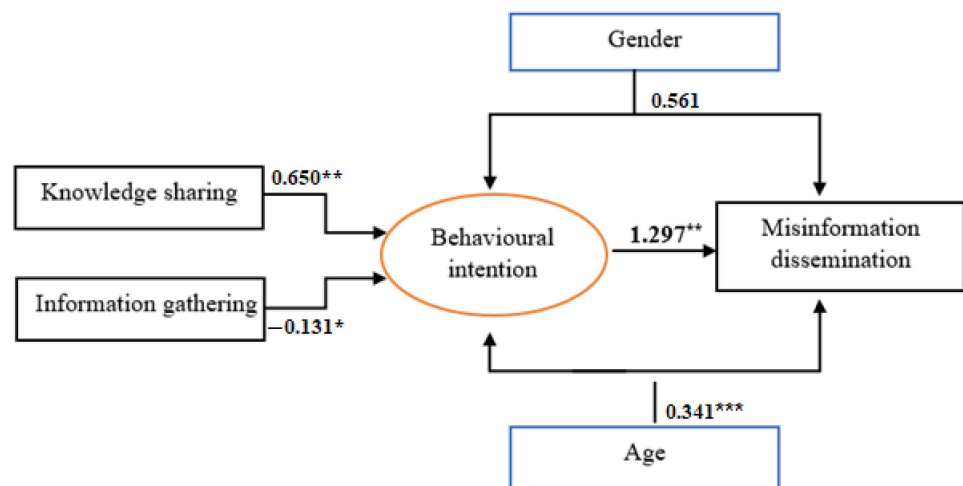


Figure 2. Standardised solution and hypotheses testing results of the SEM model. $p^{**} < 0.01$, $p^{***} < 0.001$, $p^* < 0.05$.

Similarly, the study found a strong significant relationship between behavioural intention and misinformation dissemination ($t = 12.870$, $p > 0.000$). Thus, the indication here is that knowledge sharing has a strong relationship with the behavioural intention to use social media, further leading to the dissemination of misinformation through digital platforms. Finally, the study proposed a mediating impact of gender and age on the dissemination of misinformation through digital platforms. The proposed indirect effects remain positively significant ($t = 0.561$ and 0.341 , $p > 0.003$ and $p > 0.021$, respectively).

5. Discussion

This study examined the perceptions of Jordanian social media users regarding misinformation posted on social media during the COVID-19 pandemic in Jordan to gain a better understanding of their experiences of such information concerning Jordan and the dissemination of misinformation. In particular, the study focused on information gathering and the further knowledge-sharing of social media content. The study applied media system dependency theory to explore users' social media usage. Our data analysis verified our hypotheses, and a detailed discussion of the findings is presented below.

The findings indicate that our online users became more dependent on social media platforms for information and knowledge-related needs. Such dependency has an impact over the long term on how users perceive these platforms in terms of news and information. However, the risks of information and knowledge sharing through social media remain considerable, especially with information gathered from unreliable sources. This argument seems explicitly relevant to the current study results, as the participants indicated their dependence on social media for gathering more information about COVID-19 and for sharing it with others without validating the source information as either reliable or unreliable.

It is also notable that gender, age, qualification, and other factors are highly influential in the decision-making process [63]. Particularly in terms of social media usage, information gaining and sharing, communication, and content selection, a wide range of literature bears witness that these factors, particularly gender and age, dominate the decision-making process. This study also adds to the existing literature regarding the role of gender and age in spreading misinformation through online platforms.

For H1, the results indicate a significant, positive relationship between knowledge sharing and behavioural intention. This means that the way in which knowledge and information are shared on social media affects users' behavioural intention to make further use of this information [33]. It seems that participants were interested in sharing what they viewed and received through social media with others [32,37]. For example, studies have attempted to realise the connection between social media and information sharing during

COVID-19 and have indicated that information is circulated and shared by those people who are trusted, even with misinformation [64].

For H2, the results indicate that the relationship between information gathering and behavioural intention remains insignificant, further questioning social media news sources' reliability. It seems that respondents were comparatively more interested in sharing knowledge regarding COVID-19 in Jordan rather than gathering information through social media platforms. We do not have a full explanation of why our respondents were more likely to share knowledge with others than they were to gather information about the virus, a little different from the findings in the previous literature (Apuke & Omar, 2021). Research has shown that many people seek and gather information through different media outlets regarding how to cope with the virus, and this could turn out to be misinformation. According to Jamil et al. [65], the increased usage of social media during the past few years has given rise to serious concerns regarding its effects, as these outlets are serving widely as sources of information and misinformation due to their user-centric approach. However, this approach seems more dominant, especially during the COVID-19 pandemic.

It is also notable that both knowledge sharing and information gathering are previously determined factors incentivising individuals to increase their social media usage and their general dependency on social media [66]. Yet, these studies were conducted prior to the outbreak, when people had yet to experience situations such as social isolation, lockdown, and even curfews, in many countries worldwide. These factors may also contribute to the increased usage of social media by people wanting to stay updated about the news and wanting to share it with others [67].

For H3, a significant relationship between behavioural intention and the dissemination of misinformation through social media was found. Despite previous studies witnessing this relationship, its examination during the outbreak showed some in-depth concerns related to the human need for knowledge sharing and information gathering, resulting in the dissemination of misinformation about the disease [15,68,69]. Therefore, the increased social media dependency for gathering information and sharing knowledge also indicates an active role played by social media users. These users' online behaviour reflects the extent to which they are susceptible to being affected by misinformation [70]. As noted by Al-Zaman [39], attaining and sharing misinformation with others is not new, nor has this happened only during the current pandemic.

Finally, gender and age are the primary demographical factors that affect one's social media usage in general and during the COVID-19 outbreak in particular [71]. The relevant difference became more visible when social media usage habits and patterns led to the non-deliberate spreading of misinformation [46,48]. Similar results are also found in this study as H4 and H5 also indicate a positive significant impact of age and gender on misinformation spreading among the respondents. Thus, during the COVID-19 outbreak, government officials took many actions to hamper the virus transmission, the main step being the implementation of public distancing strategies to cope with this major pandemic. In doing so, social media could have been one of the most effective platforms (providing two-way communication) for delivering public information in Jordan. As noted by Tsao et al. [72], if people could rely only on accurate information, such as peer-reviewed research or research reports from the WHO, the situation would be much different. Similarly, these media effects are not a new phenomenon, nor can social media be considered the only sources of misinformation [72]. However, the growing misuse of social media strongly questioned its role during the healthcare pandemic. As mentioned earlier, this pandemic was different than previous diseases in the sense that COVID-19 became a healthcare concern, but misinformation became a psychological and social concern.

6. Conclusions

This research indicates that the use of digital media for knowledge sharing and information gathering also led to the spread of misinformation. Despite the dissemination of information remaining non-deliberate, the increased accessibility to digital platforms,

their usage, and increased dependency among the users further led to the sharing of false information about different social and healthcare phenomena in Jordan. Furthermore, the demographics, including age and gender, also remained significant in indicating positive behaviour regarding social media usage, further causing the spread of misinformation. To sum up, as well as considering social media as a source for acquiring and spreading knowledge and information, people should also keep its harmful effects in mind [73]. Real-time surveillance of social media has also exemplified its role as an integral part of our life, yet reliable information sources are still recommended. Having said that, the wider availability of social media provided greater access to information, this appeared to be problematic in terms of the information-sharing and re-sharing process.

7. Limitations and Further Research

Although our study has contributed to the knowledge, its limitations are acknowledged. First, this study uses only two factors (knowledge sharing and information gathering) as the main factors affecting one's behaviour in the spread of misinformation. Therefore, other factors may occur and not be covered in this study. Second, our study represents a small sample, taken only from one university in Jordan, and this questions the results' generalisability in other geographical regions. The third limitation involves the role of social media in spreading misinformation during the pandemic, a time when social media also deserves credit for disseminating real-time, authentic information. Yet, the study took every possible step to stay unbiased and to provide the results with accuracy and objectivity. Finally, this study utilised a self-proposed model to examine the social media roles, a persuasive factor in the spread of misinformation. Although this spread of misinformation is not deliberate, it has raised many concerns. The study's model can be used in future investigations to examine these factors as sources of major public concern. This suggests that more studies are needed to examine other factors deliberately adopted as the primary characteristics of social media. Yet, these have become a source of several social concerns, especially during emergencies such as COVID-19. To counteract the prevailing misinformation, the study suggests the authentication of news by attaining it from a valid platform.

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