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The Influence of Information Sharing through Social Network Sites on Customers' Attitudes during the Epidemic Crisis of COVID-19

Abdulaziz Alhubaishy [1,*] and Abdulmajeed Aljuhani [2]

[1] College of Computing and Informatics, Saudi Electronic University, Riyadh 11673, Saudi Arabia
[2] College of Computer Science and Engineering, Taibah University, Medina 41411, Saudi Arabia; abaljuhani@taibahu.edu.sa
* Correspondence: a.alhubaishy@seu.edu.sa

Abstract: This paper explores the influence of crisis-related information on customers' recommendations and purchase intentions. Various studies have investigated the role of risk-related information in terms of its certainty and immediacy. This research introduces a model that differentiates and investigates different types of information provided by organizations through social network sites (SNSs) that are related to the coronavirus (COVID-19) crisis, including situational information and precautionary measures information specifically. The proposed model targeted users of SNSs in Saudi Arabia, where around 72.38% of its population is considered active SNSs users with 3 h of average daily time spent on SNSs. Based on the survey data collected from 356 online shoppers in Saudi Arabia, structural equation modeling (SEM) was applied to test the proposed model. The reliability of instrument was tested using Confirmatory Factor Analysis (CFA), where the results showed acceptable model fit indices (X^2/df = 2.6, GFI = 0.93, CFI = 0.94, TLI = 0.93, and RMSEA = 0.067). Based on that, the structural model was built and tested, which also showed acceptable fit indices (X^2/df = 2.9, GFI = 0.92, CFI = 0.93, TLI = 0.91, and RMSEA = 0.073). The findings highlight that situational and adopted precautionary measures information had a significant impact on recommendations ($\gamma = 0.73$) and purchase intentions ($\gamma = 0.39$). Further, organizations that hold themselves accountable for broadcasting updated information related to the crisis and disseminating the necessary preventive measures develop a high level of recommendations and purchase intentions among customers. A personal recommendation construct was confirmed as a partial mediator, where an indirect significant influence was found of broadcasting information on purchase intention through personal recommendation ($\gamma = 0.309$). Therefore, this paper suggests that organizations should consider offering customers all the necessary types of information related to the COVID-19 crisis.

Keywords: information sharing; situational information; personal recommendation; purchase intention; social network sites

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1. Introduction

The rapid transformation of online businesses is one of the motivators for any organization to redesign its strategies [1]. The necessity of completely moving toward online selling and purchasing has been emphasized because of the worldwide outbreak of COVID-19. Companies and organizations that want to compete strive to maximize their efforts in terms of developing merchandise and selling their services and products online. Even small companies are working on a sequence of urgent steps for moving online to keep their businesses operational.

The growth in electronic commerce has changed the product-oriented environment to a more social-oriented one [2]. The rapid development of social network sites (SNSs), such as Facebook and Twitter, has also impacted the shape of electronic commerce, where organizations can reach and share product information with a larger pool of potential

customers worldwide [3]. Numerous barriers to digitizing products and services have been categorized based on three aspects: technical, organizational, and social [4]. These three aspects mainly affect humans and are affected by humans. Indeed, human factors have been considered to be the main reason behind any strategy's success or failure in terms of selling services and products online. For example, using the existing literature, Heavin and Power have identified the main challenges that managers face in the digital age [5]. Of these challenges, satisfying customers' needs has been noted to increase operational efficiency [6]. Therefore, organizations should understand these challenges and adhere to specific guidelines during crises to ensure customers' satisfaction. Seeking information, for example, is one factor influencing customers' behaviors during an organizational crisis [7].

This research contributes to the current literature by investigating the role that different types of information play regarding customers' intentions to purchase. The paper highlights the influence of information availability regarding COVID-19 and the influence of sharing information about adopted precautionary measures on potential customers' intentions to purchase. This paper considers and tests these influences as potential barriers to organizations successfully adopting online business strategies. Many well-known organizations, such as Amazon (Figure 1), have shared such information with their customers to obtain their purchase intentions.

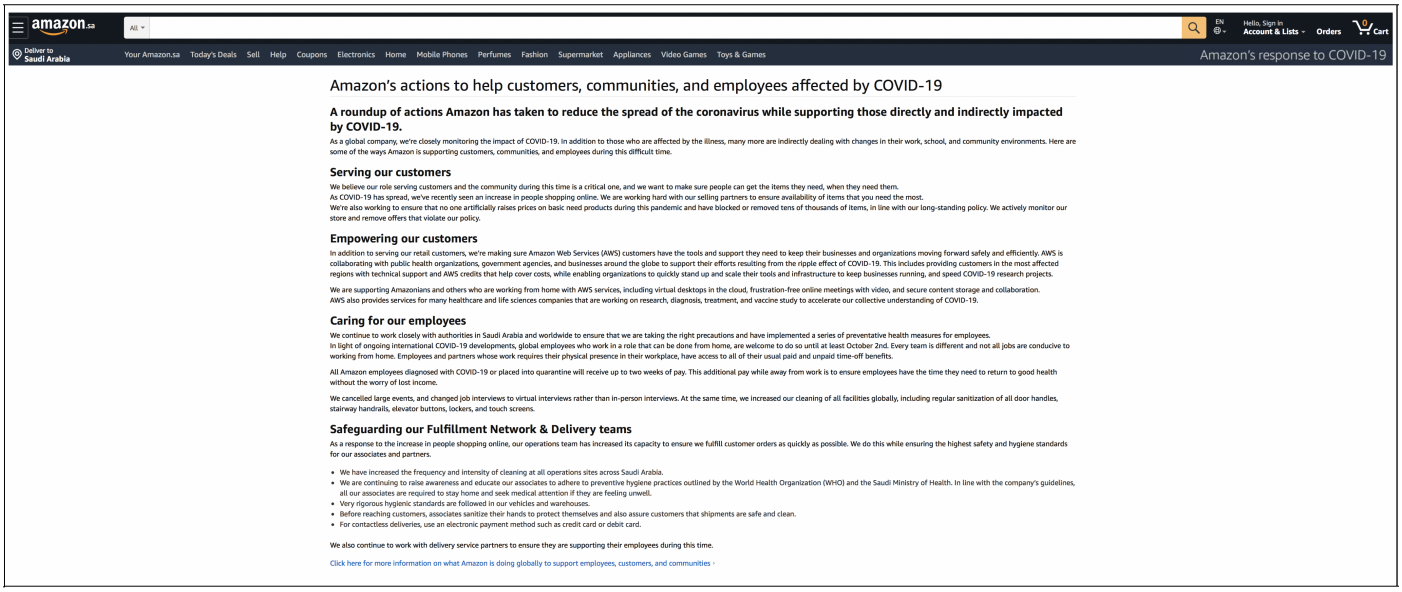

Figure 1. Information about Precautionary Measures Adopted By Amazon During COVID-19 Pandemic. Source (https://www.amazon.sa) accessed on 20 July 2020.

The main objective of this research is to investigate how the amount and type of information shared through SNSs influence customers' purchase intentions during the COVID-19 crisis, as a factor impacting the success or failure of online businesses. This main objective is further divided into the following three objectives:

- Investigating the influence of the amount and type of information related to COVID-19 shared by an organization through SNSs on customers' purchase intention;
- Understanding the role of sharing information related to the adopted precautionary measures by an organization during COVID-19;
- Reviewing the influence of online recommendations about the organization's behavior during COVID-19.

2. Theoretical Background

2.1. The Relationship between an Organization's Shared Information about a Pandemic and Its Availability of Precautionary Measures

Yucel has investigated risks related to digitizing services and various challenges that organizations have encountered [8]. Risks related to digitizing organizations' businesses include the increased cost and complexity of adopting online business strategies, influence on the business process, influence on the organization's profits, effect on the security of the organization's data, and effect on the privacy of customers' data.

Ghahtarani et al. have elucidated that knowledge sharing about products and services assists customers in making better purchasing decisions [9]. Purchase intention is also influenced by other types of information, such as information about the crisis, which can beneficially influence customers' decisions. Li et al. studied the role of information need and information-seeking factors, highlighting their significant influence on customers' responses during an organizational crisis [7].

Both accurate and inaccurate information about a crisis are shared faster via SNSs than via other traditional media [10]. Analyzing the information communicated between customers and organizations or among customers is important in order to improve situational awareness during the crisis [11]. When available information about a crisis is insufficient, "people commonly need additional information about the certainty, severity, and immediacy of the threat, and logistical support for protective action" [12]. The lack of this type of information leads customers to obtain less knowledge about the crisis; hence, their intention and tendency to seek more information increase [13].

To avoid inaccurate information about a pandemic that might affect users of SNSs, Reference [14] urges the necessity of authorities and national agencies monitoring this information and adopting various anti-rumor strategies. The organization, as advised by [15], should deal with any crisis falling under a victim cluster, other than combating rumors, by delivering necessary and accurate information. Reference [10] has highlighted some methods adopted to reduce the influence of a crisis on customers in SNSs. Sharing the passive voice of customers and monitoring information to understand and improve reactions are among the methods that organizations can exploit. Therefore, organizations can work on disseminating information to and updating potential customers through SNSs during COVID-19. They can do this with situational information on a daily basis to prevent false information and rumors, while also informing SNS users of the organization's adopted reactions to the current situation. This can be done by supplementing trusted information issued by national and international authorities to organization's customers through SNSs and exposing adopted precautionary measures. Therefore, the following hypothesis is introduced.

Hypothesis 1 (H1). *Situational information shared by an organization about crises in SNSs is positively associated with its availability of precautionary measures.*

2.2. The Relationship between Availability of Precautionary Measures and Customers' Recommendations

The wide use of SNSs has impacted the way that organizations and their customers communicate. SNSs have affected various factors related to obtaining customer satisfaction and positive reviews. For example, several studies, such as [16], have explored the point of customer engagement and the consequences of brand engagement through SNSs on purchase intention. Pansari and Kumar have pointed out that brands should create awareness to help their consumers specify if the brand's product or service meets their needs and to assure their willingness to purchase [17].

Farook and Abeysekara specified that SNSs' characteristics, such as being widespread, ease of contact, and speed, allow brands and organizations to reach a large number of customers [18]. Therefore, brands and firms are encouraged to keep engaging customers and deploying various communications channels' plans in order to reach their consumers

and keep them satisfied during crises. For example, Spiro has developed beneficial customer engagement through three principles: (1) the urgency of the current crisis situation, (2) one-to-one communication, and (3) updating the channel used for contacting consumers [19]. The author has also pointed out that adopting a proactive and constant consumer connection during crises is profoundly valued by consumers. In addition, beneficial communications should be achieved through sympathetic and oriented solutions, which are implemented immediately without being excessively nosy. Delivering basic information, such as safety and health information about the crisis (e.g., the COVID-19 pandemic) via SNSs is significant for building trust between the company and its consumers, consequently helping it to obtain their satisfaction and good reviews [19]. It has been found that most people associated with SNSs interact with different individuals in addition to looking for or offering information and help [20]. Safety and health information, such as adopted precautionary measures during COVID-19 crises, can impact customers' satisfaction, where organizations can lead the process of broadcasting and circulating these types of information among potential customers through SNSs. Therefore, the following hypothesis is introduced.

Hypothesis 2 (H2). *Precautionary measures' availability in SNSs is positively associated with personal recommendations during crises.*

2.3. The Relationship between Availability of Precautionary Measures and Customers' Purchase Intention

Customers' purchase intentions is a construct that is affected by many factors. One factor is the availability of important information about products or services, as well as the organization itself in some cases. Various studies, such as [21], have investigated the influence of the availability of product-related information on customers' intentions. On the other hand, a number of studies have also investigated the role of the other type of information, namely information related to the organization that sells or produces products and services.

Cordell has examined the influence of the country of origin of a product and found that this factor has a significant influence [22]. In line with the study, a number of studies, including [23,24], investigated the country of origin in different environments and found that it has a positive influence on customers' intentions during a crisis.

Information about a corporate crisis has been found to be an influential factor regarding customers' intentions to purchase. Mitroff has defined a crisis as a negative event or threat that occurs and negatively impacts the whole organization [25]. SNSs affect organizations during a crisis because of how they help make information regarding the crisis widespread, which eventually affects the reputation of the organization [26].

Mainly, crises are divided by Coombs into three main clusters: victim, accidental, and preventable [26]. The victim cluster includes all types of crises wherein the organization is also a victim, for example, in an earthquake. The accidental cluster encompasses all types of crises where unintentional actions by the organization influence its reputation; an example may be technical errors leading to the recall of a product. The preventable cluster includes all types of crises where intentional actions are somehow taken by the organization, for example, when laws or regulations are violated.

Coombs has studied different crisis response techniques via situational crisis communication theory (SCCT), and these include deny, deal, and diminish response options to avoid, minimize, or mitigate how a crisis might negatively influence an organization's reputation [15]. The deny technique includes all options that lead to an organization denying the reason for the crisis, for example, by confronting accusers who claim incorrect information. The diminish technique includes all options that lead to the minimization of an organization's responsibility for the crisis, for example, justifying that an incident can occur at any organization as part of its essential operations. The deal technique includes all options where an organization shows concern, compassion, apologetic feelings, and regret about the crisis, for example, by offering compensation to victims of a crisis.

COVID-19 is a crisis that has influenced the world. Therefore, it can be classified under the victim cluster. The response option in this case requires the organization to deal with the crisis. Addo et al. specified that customers need information to enable them to control and respond to their fear during the COVID-19 crisis [27]. With regard to SNSs, information regarding precautionary measures adopted by the organization during COVID-19 can influence customers' intentions. Therefore, the following hypothesis is introduced.

Hypothesis 3 (H3). *Precautionary measures information shared by an organization in SNSs is positively associated with customers' intentions to purchase during crises.*

2.4. The Relationship between Personal Recommendations and Customers' Purchase Intentions

Consumers' behaviors have changed because of the process of information exchange between consumers using social media [28]. Through social media, an individual (e.g., sender) transfers a message (either text, image, or video) to affect the behavior of a different individual (e.g., receiver) [29]. Various studies have emphasized that personal recommendations shared through SNSs affect customers' intentions. For example, Wang et al. and Aghakhani et al. have pointed out that direct messages from friends on Facebook influence receivers' purchase intentions [30,31]. Furthermore, the authors of [32] stated that social media friends influence purchase intention through direct recommendations.

Unlike conventional socialization, Wang et al. have highlighted that online social media provides individuals who may/may not know each other with socialization through virtual platforms [33]. According to the authors, by using social media, consumers can transmit motivations and recommendations to each other that impact their intention to purchase [33]. Moreover, the recommendation information should be valuable to consumers in order to affect their purchase intention. Therefore, the importance of transmitted information among consumers is a key factor influencing purchase intention.

During crises such as the COVID-19 pandemic, personal recommendations through SNSs play a significant role in customers' purchase intentions regarding the lockdown of most operating businesses. As noted by Sicilia et al., the source of these recommendations has an impact on the receiver (e.g., customer) [34]. Moreover, recommendations that frequently come from the same source are recognized as being more beneficial for purchase intention than recommendations that come from different sources [34]. Thus, during a crisis, personal recommendations that deliver more information about the organization and its procedures during the crisis influence the intention to purchase. Regarding this discussion, the following hypothesis is introduced.

Hypothesis 4 (H4). *Personal recommendations made through SNSs regarding precautionary measures applied by an organization during a crisis are positively associated with customers' purchase intentions.*

Based on the theoretical background, we have proposed the model shown in Figure 2. The model concentrates on testing different types of information shared by SNSs along with various producers of information, such as customers and organizations. First, the model highlights the role of information available on the organization's SNSs about the COVID-19 crisis and the precautionary measures adopted, as highlighted in H1 and H2. Both Situational Information Availability (SIA) and Precautionary Measures Availability (PMA) are information that we believe should be distributed by the organization. However, the difference between the two constructs concerns the type of information. In SIA, the distributed information includes all information relevant to the COVID-19 crisis. The SIA is not related to the organization's behavior; instead, it should be collected from the authorities, organized, and presented to potential customers through the organization's SNSs to ensure that accurate information is delivered to customers. On the other hand, PMA information includes all relevant information about how the organization perceives and reacts to the current situation, such as the precautionary measures adopted, changes in the organization's behavior, and its process of delivering products to customers. Therefore,

we infer an impact of SIA on PMA because we hypothesize that organizations that are concerned about delivering correct, updated information about the COVID-19 crisis are also concerned about providing best practices for avoiding the negative impacts of the crisis. Thus, H1 hypothesizes that situational information provided by an organization can preserve a positive impact by providing the appropriate adopted precautionary measures, hence preserving the positive impact on customers' Purchase Intentions (PI), as stated in H3. Situational information includes all types of information related to the pandemic provided by the organization to increase the knowledge of potential customers about the current situation regarding the pandemic. An example of situational information is statistics on the level of COVID-19 outbreak within an organization's territory. Furthermore, the amount of this type of information that is available plays a significant role, as this information can be updated and shared regularly by the organization to ensure that potential customers receive accurate information about the pandemic. Peer communications and the exchange of information about the COVID-19 pandemic through SNSs have been emphasized in H4. This includes sharing customers' experiences and Personal Recommendations (PR) about the precautionary measures that are applied by an organization during the pandemic.

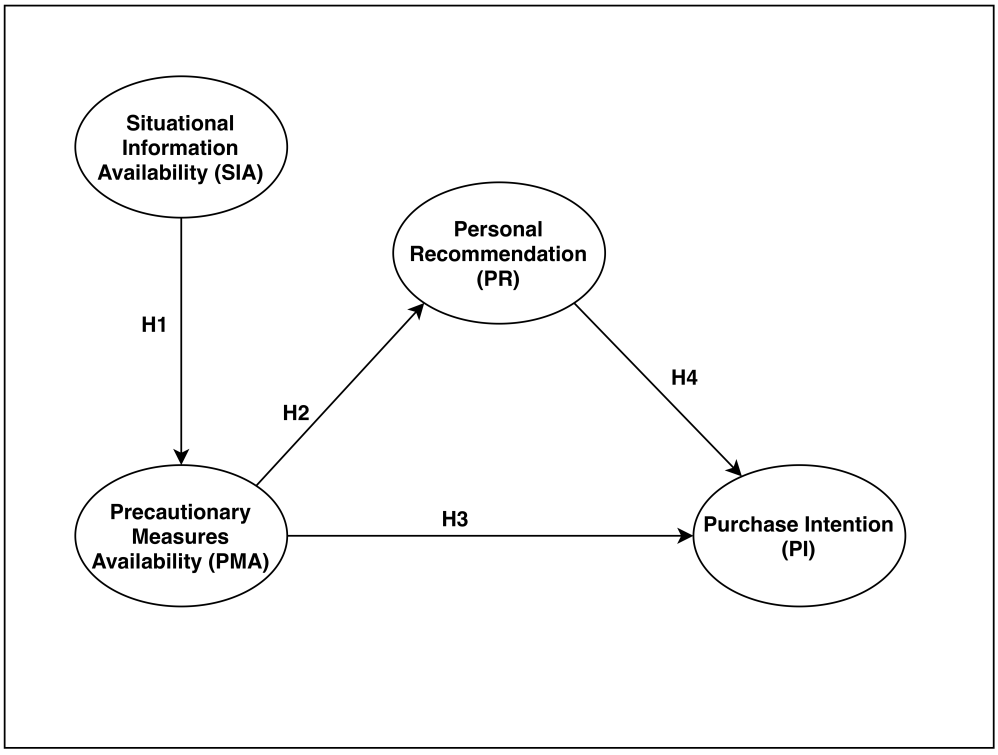

Figure 2. Research Model.

3. Research Method

Using the survey methodology, researchers can question participants about a certain topic and then explain their responses [35]. Quantitative and qualitative studies can be carried out using the survey method to investigate different concepts, set up the degree of consumer loyalty, and exhibit individuals' opinions, as well as for several other purposes. Moreover, the survey method allows researchers to keep the sample of participants anonymous, and the survey can be conducted at a lower cost and in less time than other research methods [36]. Thus, we adopted the survey method in the form of questionnaires that were distributed through online mediums to collect a suitable number of responses to test the proposed model.

The survey consists of two main parts. The first part collects the demographic information of participants, which could influence the results of this study. The collected information includes the participant's gender, education level, and age. In addition to

that, we have collected information about which SNSs are used by the participants and the frequency and type of SNSs used. The second part of the survey collects information about the model constructs—PMA, SIA, PR, and PI.

We adopted various items from the literature to measure the model constructs. We also created items to precisely test these constructs during the COVID-19 crisis. Table 1 explains the model constructs, items, and relevant references.

For PMA, we created the items based on the idea of information needed during a crisis as stated by [37,38]. Johnson has indicated that, during a crisis, customers' tendencies are positively affected toward seeking information [37]. Further, information is needed when social influence plays a role, which indicates that customers who are affected by a pandemic can seek more information [38]. Therefore, we provided a list of items to test whether or not customers seek specific information about how a targeted organization behaves regarding the COVID-19 crisis. The SIA items are proposed based on the idea of the need to acquire information from an organization during a crisis as stated by [11]. In addition, PR and PI items are proposed based on the idea of the need to acquire more information from various customers during a crisis, as addressed by [39].

Table 1. Constructs and Items.

Construct	Items	Reference
Precautionary Measures Availability (PMA)	**PMA1:** I need to know more information about organization adherence to COVID-19 Precautionary measures instructions. **PMA2:** I need to know more information about the organization's awareness of the Pandemic risks. **PMA3:** I need to know more about organization's procedure during the Pandemic. **PMA4:** I am worried about how the organization deal with the pandemic. **SIA1:** I would like to know more about how the organization is currently affected by the crisis.	[37,38]
Situational Information Availability (SIA)	**SIA2:** I need more information provided by the organization about the crisis. **SIA3:** It is important to have updated information about the current situation of the crisis provided by the organization. **PR1:** I often read other consumers' online recommendations to know about organization's precautionary measures for COVID-19.	[11]
Personal Recommendation (PR)	**PR2:** To make sure I choose the right product or service, I often read other consumers' online recommendations about organizations precautionary measures for COVID-19. **PR3:** I often consult other consumers' online recommendations to know about organizations precautionary measures for COVID-19. **PR4:** I frequently gather information from online consumers' recommendations about organizations precautionary measures for COVID-19, before I choose a product or service of an organization. **PI1:** I would purchase products or services from organization that I am satisfied with its precautionary measures.	[39]
Purchase Intention (PI)	**PI2:** I would do more purchases with organizations that adopt precautionary measures in the future. **PI3:** I intend to buy from organizations that update customers about pandemic crisis regularly. **PI4:** I intend to buy from organizations that online reviews recommend their adherence to precautionary measures instructions.	[39]

The responses were analyzed using structural equation modeling (SEM), which is a set of statistical techniques used to examine relationships among independent and dependent variables. This paper tests both models of SEM: the measurement model and the structural model. The measurement model deals with testing a construct's (variable's) items to assure

that each set of items measures its corresponding construct. The structural model proceeds by testing the influence of constructs on each other. Our proposed model was tested using statistical package for the social sciences (SPSS) software along with its added module called Amos.

4. Results

A total of 356 valid responses were received for the online survey. Table 2 summarizes the demographic information. The table shows the diversity of responses for all demographic variables. For gender, female responses constituted about two-thirds of the total responses, while male responses constituted only one-third. Regarding the age, about half of the participants belong to Generation Z, which is the age of digital technology and social media. In this regard, 75% of respondents were found to use SNSs daily. About 80% of participants' education level is undergraduate or graduate. Finally, Twitter, Instagram, and Facebook are the SNSs most used by the participants.

Table 2. Demographic Variables.

Variable	Category	Frequency	Percentage (%)
Gender	Male	100	28.1
	Female	256	71.9
Age	18–25	174	48.9
	26–39	145	40.7
	40–60	36	10.1
	>60	1	0.3
Education Level	Less than High School	12	3.4
	High School	64	18
	Undergraduate	246	69.1
	Graduate	34	9.6
Frequency of Using SNSs Usage	Daily	266	74.7
	Weekly	49	13.8
	Monthly	36	10.1
	Never	5	1.4
Most SNSs Used	Twitter	219	61.5
	Facebook	74	20.8
	Instagram	149	41.9
	Other	109	30.6

4.1. Measurement Model

To test our proposed model, swe first conducted a pooled-confirmatory factor analysis (Pooled-CFA) to assure the reliability and validity of the proposed constructs within the measurement model. Table 3 shows the Cronbach's alpha (CA) for each construct, in addition to composite reliability (CR), to ensure the reliability of the model. Based on the literature, the CR for each construct must be at least 0.70 to achieve the reliability of the proposed model [40]. In our model, the CRs are 0.75, 0.77, 0.81, and 0.82 for SIA, PR, PMA, and PI, respectively. Convergent validity was also achieved by calculating the average variance extracted (AVE) for each construct. The result of AVE for each construct is above 0.51, where the minimum acceptable threshold is 0.50, as stated in [40]. The model fit tests the construct validity by measuring a set of indices of the Pooled-CFA to ensure that the collected data fit in our measurement model. The literature insists that in order to achieve an absolute fit of a model, the threshold for goodness of fit (GFI) should be above 0.80 [41] and root mean square error of approximation (RMSEA) should be below 0.08 [42]. The proposed measurement model values of GFI and RMSEA are 0.93 and 0.067, respectively. To ensure the incremental fit of a model, the Tucker- Lewis index (TLI) and comparative fit index (CFI) are used, for which a threshold of above 0.90 should be achieved, as stated in [41,43]. The measurement model achieved 0.93 and 0.94 for TLI and

CFI, respectively. Finally, the achieved chi-square divided by degree of freedom (X^2/df) is 2.6, which showed the tight fit of the model, as stated by [44].

Table 3. Reliability and Validity Measures of the Measurement Model.

CR	CA	AVE	Construct	SIA	PMA	PR	PI
0.76	0.76	0.51	SIA	0.72	0.70	0.73	0.59
0.81	0.80	0.53	PMA		0.73	0.68	0.67
0.77	0.80	0.53	PR			0.73	0.70
0.82	0.82	0.54	PI				0.73

Note: Diagonal values are the square root of the AVE. Off-diagonal values are the correlations among constructs

4.2. Structural Model

To test the research hypotheses, we examined the estimated path coefficient within the structural model, as illustrated in Figure 3. The figure shows both the standardized estimate for each path and the square multiple correlation (R^2) for each endogenous construct. R^2 values are 0.58, 0.54, and 0.57 for PMA, PR, and PI, respectively. The path coefficient results show that SIA has a significant effect on PMA ($\beta = 0.76$, t = 8.75, $p < 0.001$). Therefore, H1 is accepted. The path coefficient results also show that PMA has a significant influence on both PR ($\gamma = 0.73$, t = 8.69, $p < 0.001$) and PI ($\gamma = 0.0.39$, t = 4.07, $p < 0.001$), which indicates the acceptance of both H2 and H3. Furthermore, PR has a significant effect on PI ($\gamma = 0.42$, t = 4.35, $p < 0.001$). Therefore, H4 is also accepted. Finally, the structural model shows an acceptable value for all model fit indices ($X^2/df = 2.9$, GFI = 0.92, CFI = 0.93, TLI = 0.91, and RMSEA = 0.073).

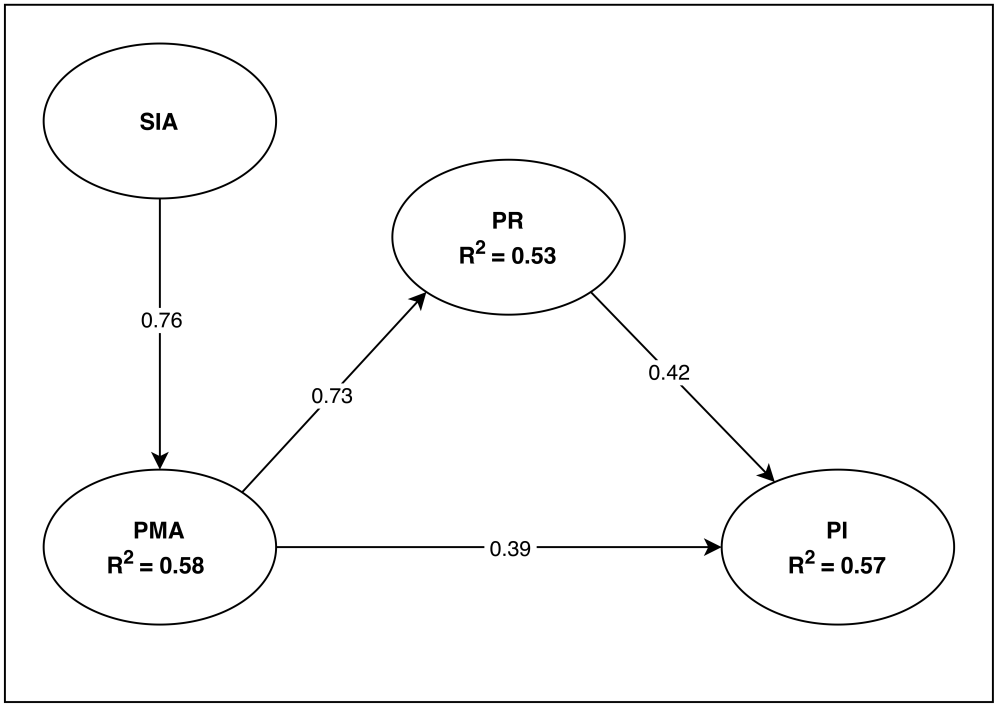

Figure 3. The Results of Indirect Structural Model: Standardized Path Coefficient Estimates.

Baron and Kenny have identified three conditions to decide whether a variable is a mediator between two variables [45]. By adopting the three conditions, we examined whether PR is a mediator or not between PMA and PI by conducting a comparative analysis between the indirect model illustrated in Figure 3 and the direct model illustrated in Figure 4. The first condition denotes that the independent variable significantly influences both the dependent variable and the mediator. As shown in Figure 3, PMA directly and

positively influence PI ($\gamma = 0.389$, $p < 0.001$), and PR ($\gamma = 0.733$, $p < 0.001$). The second condition implies that the mediator should significantly influence the dependent variable. The direct path shows PR significantly and positively influences PI ($\gamma = 0.421$, $p < 0.001$). The third condition states that, with respect to the mediator effect, the influence of the independent variable on the dependent variable should decrease. When comparing the two models, we found that the influence of PMA on PI is decreased (γ value decreased from 0.694 to 0.389); therefore, PR is considered a mediator between PMA and PI. To examine if the mediator represents a partial mediator, the decreased influence between the two variables should remain significant; otherwise, it is a full mediator [46]. The influence of PMA on PI remains significant ($p < 0.001$); therefore, PR is a partial mediator between the two variables.

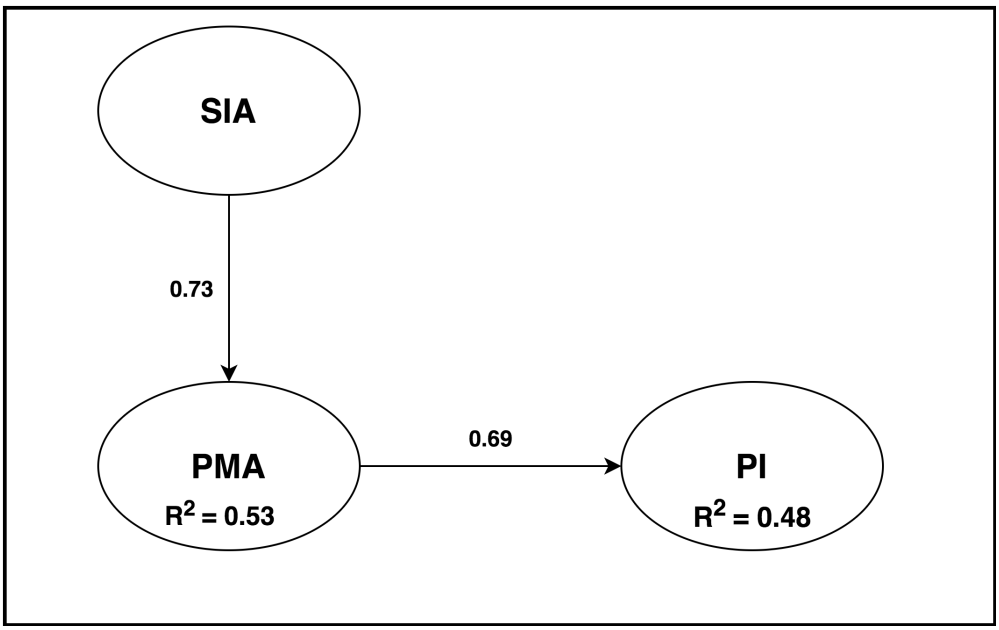

Figure 4. The results of the direct structural model between PMA and PI: standardized path coefficient estimates.

5. Discussion

Despite the lack of comprehensive studies related to the influence of such types of incidents on customers' intention to make an online purchase, many studies have investigated the risks and their associated factors from various perspectives. Our findings intersect with these perspectives regarding the influence of SM on sharing important information with potential online customers.

Information about the risks has been identified as influencing online customers, as mentioned in [38]. We elaborated on that by testing the situational information about COVID-19 and how this type of information affects the need for an organization to disclose its precautionary measures. Overwhelming customers with a large amount of information about products and services was not found to be an influencing factor regarding customers' intentions, as stated in [47]. We found that the amount of information can positively influence the need to know the precautionary measures adopted by organizations, consequently positively influencing customers' intentions to purchase. The previous study has recommended that a minimal and structured amount of information about products and services can be of benefit, while we found that more adequate and frequently updated information about how organizations are currently affected by the pandemic crisis can lead organizations to focus more on structuring and providing all types of information in the necessary amounts.

In line with several studies, such as Coombs [15], regarding strategies that should be applied by organizations during a crisis, we elaborated on the COVID-19 crisis and tested

customers' intentions regarding when they find information about precautionary measures shared through SM. PMA about COVID-19 is an important factor that influences online purchase intention. The declaration of precautionary measures on SNSs plays an important role in mediating the amount of information shared by an organization and customers' intentions. The role pertains to how this information affects both recommendations by increasing the trust of customers and their purchase intentions by reducing their perception of potential risks during the COVID-19 outbreak.

Recommendations and reviews of customers are mainly affected by the declaration of precautionary measures adopted by organizations. Customers of organizations share their information and experiences concerning the information shared by the organization, as well as its actual behaviors that are noticed when it deals with customers during the crisis. When the organization strictly adopts the precautionary measures and explicitly declares this to customers, it should be reflected in current customers' experience and knowledge. This type of information can be effective when shared through SNSs because of its fast spread. The organization's behavior and shared information about COVID-19 can increase the value of that shared information, as stated in [28], where customers continually experience and share this valuable information through online recommendations. It has not been tested whether these recommendations are related to their experience or if the availability of information about precautionary measures affects SM users' sentiments.

The previous factors work together to constitute a major influence on purchase intention. This collaboration takes place when an organization considers the information shared by authorities and transfers it to customers, in addition to relating this information to its precautionary measures. In turn, customers' recommendations are influenced and the intention to purchase is maximized. We believe that missing any collaborative factor can minimize the purchase intention. For example, if customers lack updated information about the current pandemic situation, they might distrust the disclosed precautionary measures adopted by the organization. Similarly, missing information about precautionary measures leads to negative recommendations regarding the organization, resulting in a decreased number of customers and negatively influencing their intentions to purchase.

6. Conclusions and Practical Implications

In addition to SNSs' role in sharing information among online customers, different types of information must be shared in order to maximize customers' intentions to purchase. The literature has elaborated on crisis strategies and how organizations should behave regarding such a crisis. This research highlights the role played by different types of information shared through SNSs during the COVID-19 pandemic. Mainly, two types of information have been tested within our proposed model: information about COVID-19 shared by an organization and information about its precautionary measures. The first type of information has been found to be a requirement that customers search for through SNSs, where they continue to find the latter type of information within the organization's SNSs.

This research provides practical insights into how organizations should share different types of information, other than information mainly related to their products and services. First, this research gives organizations insights to help them understand the influence of sharing information with their customers on the digitizing of services and products. Organizations should pay attention to the different types of information needed by customers. Our findings highlight that information related to the crisis, how organizations are affected, and what actions organizations are taking regarding the crisis are the types of information that organizations should consider disclosing, along with information about products and services. Second, in order to enhance customers' loyalty and positively influence recommendations about the organization's products and services, these organizations should consider supporting the awareness and loyalty of customers by updating them about precautionary measures adopted during the crisis. Examples of adopted measures include social distancing, ventilation, air-filtering, workers' vaccination, and disinfecting surfaces. These procedures will ensure that customers are aware of the current situation

regarding both the crisis and the precautionary measures taken by organizations. Furthermore, organizations are highly encouraged to frequently use SNSs and share these types of information to keep customers updated, as SNSs have been found to be an important medium for exchanging information among customers during the crisis. Finally, the precautionary measures' availability has been found to be an important factor that influences customers' purchase intentions. Therefore, organizations should adhere to the best practices for adopting precautionary measures while continuously announcing these measures through the organizations' SNSs to support customers' purchase intentions.

Although our proposed model introduced and differentiated between different types of information, it also elaborated on how these types of information play an important role in terms of customers' opinions, recommendations, and intentions to purchase an organization's products and services.

Finally, by synthesizing the current literature and our research findings, the paper highlighted the main suggestions that organizations should consider to maximize Saudi customers' positive recommendations and purchase intentions. These suggestions can be summarized as follows:

- Organizations should analyze how broadcasting information during the COVID-19 outbreak can affect customers by considering different activities that organizations can accomplish using SNSs, such as advertisements and marketing activities.
- Organizations should provide correct and updated information related to the COVID-19 outbreak and adopt preventive measures to ensure that these measures are continuously updated.
- Organizations should avoid the increase in customers' irritation during the COVID-19 era by avoiding the negative impact of the amount of information content.
- Organizations should understand the influence of personal recommendation on purchase intention during COVID-19 and act on satisfying customers by establishing well-defined communication procedures through SNSs and broadcasting the necessary information asked by customers.

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Abbreviations

The following abbreviations are used in this manuscript:

SNSs	Social Networking Sites
COVID-19	Coronavirus
PMA	Precautionary Measures Availability
SIA	Situational Information Availability
PR	Personal Recommendation
PI	Purchase Intention

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