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The Impact of Stress During the Covid 19 Pandemic on Online Buying Behavior: A Meta-Analysis Study

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Abstract

The purpose of this review is to observe the social impact that is happening worldwide, namely the effect of the spread of the corona virus/covid 19. In the era of the covid 19 pandemic, most people experience an extraordinary fear of the threat of the virus. Fear of uncertainty creates stress. The method in this study uses a meta-analysis or literature study during the COVID-19 pandemic in the world. The results of the study found that stress is a motivating factor for individuals to make online purchases during the pandemic. Excessive worry increases the quantity of purchases, but not the frequency. Increased purchases of health products can reduce stress, while purchasing care products can distract from the pandemic. The increase in purchases is the contribution of consumers from segments who have a fear of COVID-19 and are influenced by other people's buying styles. The implication of this study can be a reference for business people that certain products such as food and health have experienced a significant increase online during the pandemic, therefore they must be able to maintain quality and delivery accuracy, and offer products at affordable prices. As for academics, this study can be used as a reference for developing models/constructs of research on consumer behavior triggered by stress.

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1. Introduction

A tremendous impact on all walks of life are many people lost their jobs. In addition, anxiety about health and safety increases, so people feel more comfortable isolating themselves from the crowd. This has an impact on the psychology of individuals who feel pressured by the circumstances they face so that stress and even depression cannot be avoided. Feelings of depression/stress make individuals look for alternative fun activities such as interacting on social media, watching movies, playing games, and even shopping online. Online shopping is not only for necessity but also for pleasure. Shopping online during the pandemic tends to increase because people feel safer and more comfortable because there is no physical contact with sellers, thereby reducing the possibility of contracting the covid 19 virus.

According to the Global Consumer Survey (2020) online shopping via mobile phones during the COVID-19 pandemic increased by 45%, while food purchases increased by 63%. In addition, more than half of consumers increase their use of video or messaging applications and social media. Based on the facts, this paper is written as a review. The purpose of this review is to observe the social impact that is happening worldwide, namely the effect of the spread of the corona virus/covid 19. In the era of the covid 19 pandemic, most people experience an extraordinary fear of the threat of the virus. Fear of uncertainty creates stress.

2. Materials and Methods

The current paper applied meta-analysis method as its review basis. Meta-analysis is a secondary integrative analysis by applying statistical procedures to the results of testing research hypotheses. (1) Determine and study the research topics to be summarized; (2) Find and collect a number of studies with a predetermined topic and select it. Search research literature can be done manually or through internet sites. (3) Calculation of effect size using the method in meta-analysis and hypothesis testing on effect size; (4) Identify whether there is heterogeneity of effect size in the model; (5) Analysis of moderator variables; (6) Draw conclusions and interpret the results of meta-analysis research.

3. Results and Discussions

3.1 Descriptive result of meta-analysis facts

Stress

Stress arises when individuals perceive that they cannot adequately cope with the demands made on them or with threats to their well-being (Lazarus, 1984). According to the World Health Organization (WHO) stress means feeling troubled or threatened by life. Furthermore, according to Duffy, Cunningham, & Moore (2005), stress is a mismatch between demand and the ability to cope with demand. This is supported by Cutright's (2012) statement which describes that when individuals find it difficult to meet the demands of an event, it is indicated to be experiencing stress. Many stressful situations are caused by external factors that are beyond people's control, which may trigger the perception that they cannot control the flow of their environment and the results of their actions. Stress can have a positive impact if it is able to encourage individuals to achieve something good, on the contrary it can have a negative impact if individuals perceive it as excessive and threatening to the point that it can affect their physical, mental and emotional well-being (Veena & Shastri, 2016).

Fear appeal theory explains that fear can arise to protect oneself from self-threatening situations (Addo et al., (2020). Fear Attractiveness consists of three conceptions namely perceived efficacy, threat, and fear (Riordan et al, 2018) This theory can be effectively used in marketing during the COVID-19 pandemic because the death threat factor for the virus increases the awareness of individuals to consume nutritious food and health supplements. Excessive fear can cause stress and can even lead to depression. Activities are needed to divert the mind from excessive fear of the effects of the pandemic, one of which is through online shopping. According to research conducted by Carnegie Mellon University, shopping activities can trigger the hormone dopamine which causes feelings of calm and comfort, like when you fall in love (PsikolgID, 2014).

It takes a certain amount of expenditure to release stress, but a high level of spending (spending most of the money) cannot relieve stress, this is more common in women (Hama, 2001). The emotion of sadness as a result of stress can encourage impulse buying online (Moran et al., 2015). Individuals who are under stress can increase spending or spend more on unnecessary products (Durante & Laran, 2016). Furthermore, the results of Zia & Shahzad's research (2017) also found that individuals with high interpersonal pressure can cause stress and have an impact on impulsive buying behavior, namely purchases without prior planning.

Research by Levkovich & Shinan-Altman (2021) measures psychological variables such as emotional feelings about threats to self and family health, worries about work problems. They limit themselves socially in order to feel safe, but it triggers feelings of isolation and stress. Countries around the world are trying to prevent the transmission of the COVID-19 virus by maintaining physical/social distancing, resulting in changes in behavior patterns. This has consequences for mental health, both short and long term. Telemedicine health visits, group visits, and delivery of care via technology platforms will be important components of treating mental crises during the COVID-19 pandemic (Galea et al, 2020).

Online Shopping Behavior Before COVID 19

Online shopping refers to the process of researching and purchasing products or services over the Internet (Varma & Agarwal, 2014). This online shopping behavior involves the perception and evaluation of post-purchase products and services. According to Gozukara et al., (2014) using two dimensions in measuring online shopping behavior, namely utilitarian motivation and hedonic motivation. Online shopping preferences are influenced by age, gender, education level, income, and personality (Burke, 2002; Kanchan et al., 2015).. Further research by Davis et al., (2017) uses gender specifications in measuring online shopping behavior. The results show that gender-mediated online utilitarian shopping motivation has a significant influence on online purchase intentions. Overall the influence of women is very strong, but not for men.

According to Binbin He and Christian Bach (2014) important factors to consider when shopping online are system security, payment methods, and pre- and post-sales services. Furthermore, Pappas et al., (2017) use complexity theory based on motivation and online shopping experience. The results found that nine configurations of online shopping motivation and experience lead to high purchase intentions. The nine configurations are personalization quality, shopping enjoyment, persuasion, price sensitivity, promotion sensitivity, service quality sensitivity, store brand sensitivity, innovativeness, and purchase intention.

Previous research has found that women dominate online purchases (Dholakia & Chiang, 2003; Mitchell & Walsh, 2004). Meanwhile, Rodgers & Haris (2003) found that online purchases were dominated by men, but they shopped on channels that had technological capacity. Furthermore, Forsythe's (2003) research found similarities in the online shopping behavior of men and women. Furthermore, the results of Baber's research (2014) found that financial risk has a negative impact

on online shopping behavior, consumers have a fear of financial loss and concerns about the safety of online shopping.

Online Shopping Behavior During COVID 19

Consumer behavior for online purchases has evolved during the COVID-19 restriction period (Watanabe & Omori, 2020). The results of Kirk & Rifkin's (2020) research found that during the COVID-19 pandemic there was a change in consumer behavior which tended to hoard essential goods and feared scarcity. The results of this study are in line with Sheth (2020). This behavior is a general reaction to the uncertainty of product availability in the future (Islam et al, 2021). The research of Laato et al. (2020) used the SOR framework to study how exposure to online information sources in the early stages of a pandemic (stimuli) affects a consumer's level of cyberchondria and his intention to make an unusual purchase.

The ongoing COVID-19 crisis has made consumers re-evaluate their spending priorities. Expenditure on essential needs during the pandemic has a category with positive intentions (Arora et al., 2020). The essential items for survival include clean water, food, cooking utensils, protective equipment, and cleaning products. During the COVID-19 pandemic, lockdown and social distancing were imposed. This impacts buying and shopping practices and causes consumers to experiment with new channels and learn new habits. This behavior is demonstrated by 75% of US consumers testing new brands or channels during the pandemic, with many adopting digital services and contactless services including curbside pick-up, delivery, and buying online for in-store pickup" (Arora et al. , 2020).

Furthermore, the results of research by Hazee & Van Vaerenbergh (2020) found that during the COVID-19 pandemic, consumers felt that shopping online was more practical, cheaper, could reduce direct contact with individuals so that they could avoid transmission of the virus and could relieve stress due to the lockdown. The results of Kim's research (2020) found that before the pandemic online shopping was usually done more often by the millennial generation. However, during the pandemic, baby boomers (older consumers) are motivated to learn to shop online because of safety and convenience factors that can reduce the risk of contracting the COVID-19 virus. They are motivated to continue shopping online after the pandemic.

3.2 The proposal of Meta-Analysis Results

The following shows the description of previous analysis that related to the current research topic. It is shown as the proposal of meta-analysis object, namely;

1) Xiao et al., (2020)
   The results of the study found that the daily perceived uncertainty about COVID-19 affects daily information overload, thereby stimulating daily information anxiety, which ultimately determines daily impulse buying. Meanwhile, daily information overload and daily information anxiety play a mediating role in the complete chain between daily perceived uncertainty about COVID-19 and daily impulse buying.
2) Fernandes et al., (2020)
   The results of the study found that teenagers from several countries such as Malaysia, India, Mexico, and the UK experienced stress during the COVID-19 pandemic. This has an impact on the increasing intensity of internet use, game addiction. The use of social media sites and streaming services has also increased.

3) Ahmad & Murad (2020)
The results of the study show that social media has a significant impact in spreading fear and panic related to the -19 outbreak in Iraqi Kurdistan. This has a negative effect on people's mental and psychological health. Facebook is the most widely used social media network to spread panic about the COVID-19 outbreak in Iraq. The majority of adolescents aged 18-35 years face psychological anxiety. The impact of social media panic among people varies depending on a person's gender, age and educational level.
4) Ahmed et al., (2020)
The results show that fear of a total lockdown and product shortages in the United States as a result of COVID-19 encourages impulse buying. They buy essential goods and do overstocking in their homes, isolate themselves from society, they are intensely involved in buying groceries.
5) Khan et al., (2020)
The results showed that during the COVID-19 pandemic there was an increase in online shopping, especially for groceries in Bangladesh. Consumers feel safe and comfortable shopping online because they receive products ordered at home, besides saving time they also avoid contracting COVID-19. The use of modern technology continues to increase.
6) Zamboni et al., (2021)
The results showed that unpleasant emotional experiences during the COVID-19 pandemic caused a loss of control in internet use. This encourages greater online purchases.
7) Nguyen et al., (2021)
The results showed that almost 80% of respondents shopped online more frequently during the COVID-19 pandemic. Women have a greater potential to shop online. Enjoyment of shopping is a driving factor, while a decrease in income is a deterrent factor in online shopping. Fear of disease is driving higher frequency of online shopping for food and medical products. The implication of this research is to support and encourage low-income consumers, the elderly, and women to engage in online shopping to limit the devastating impact of the pandemic on their lives.
8) Di Crosta et al., (2021)
The results showed that the change in expenditure for necessities increased by 90.69%, while for non-needs increased only 36.11%. Changes in spending levels are related to their attitudes and feelings towards certain products. When anxiety, depression, and stress were included in the model only the openness personality remained statistically significant
9) Schmidt et al., (2021)
The results of the study found that feelings of being threatened and anxious increased the quantity of purchases but not the frequency. The threat of COVID 19 is the best predictor for changes in the frequency of purchases as well as for changes in the number of purchases. The controlled effects were gender, age, education level, household size and social desirability bias.
10) Pebreza & Sahala (2021)
The study presents and evaluates the impact of seven factors: convenience, price and quality, website, design, time saving, security and socialization effects on online shopping behavior during the COVID-19 pandemic in the republic of Kosovo. The more consumers feel comfortable, the prices are right, the website and design are attractive, can save time, and guaranteed security will increase online purchases.
11) Taha et al., (2021)
The results of the study show that the intensity of social media use during the COVID-19 pandemic has increased. Differences between respondents in terms of demographic characteristics show significant results. There is a relatively weak relationship between social media use and online purchases promoted on social media.

12) Harahap et al., (2021)
The study was conducted to observe the impact of the COVID-19 pandemic on online buying behavior by consumers. The results of the study show that the COVID-19 pandemic has caused extraordinary feelings of worry and anxiety, thus encouraging "panic buying" to fulfill needs and desires that tend to be impulsive (without prior planning). This is a form of protection for themselves and their families because they face threats and uncertainty during the COVID-19 pandemic.
13) Egerov et al., (2021)
The results show that fear and worry about the COVID-19 pandemic has changed consumer behavior both traditional and online. The fear of health threats and losing their jobs changed their shopping behavior. They focus on the most basic needs during the COVID-19 pandemic. Fear has a positive correlation with food and drug/health shopping, while for electronics, household appliances, and online entertainment has a negative correlation. Considerations in purchasing these products are quality, convenience, and availability.
14) Sayyida *et al*., (2021)
The results show that the shopping trends during the COVID-19 pandemic are webrooming and online shopping. Retail sales data in the United States, United Kingdom, Germany, France, Canada, and Latin America shows that retail sales in physical stores exceed 70% of total retail sales. Meanwhile, e-commerce retail sales are less than 30% of total retail sales. Consumers tend to use digital information to find product information before buying.
15) Gu *et al*., (2021)
This research was conducted using a survey method to the top 10 countries in e-commerce. The main trend of online buying has been to increase consumer awareness and shopping experience.
16) Verma & Naveen (2021)
The research findings show that the COVID-19 pandemic has encouraged consumers to carry out economic nationalism in India by buying household products, electronic products, fashion products, cosmetic products of domestic brands. Thus the economy in India can bounce back.
17) Laksmidewi & Gunawan (2021)
This study makes a psychographic segmentation based on the negative emotions (fear & anxiety) of consumers towards the COVID-19 pandemic. The results of the study show that the first group (persistent consumers) are those who have a high fear of the impact of COVID-19, but they can practice self-control when it comes to shopping. The second group, impressionable consumers, are those who feel the most fear and anxiety, are influenced by other people's buying styles, and shop more often. The third group, consumers who are not aware, namely those who are less affected by the pandemic psychologically, who are not worried about the behavior of other consumers, and shop the same as before the pandemic occurred.
18) Hesham & Riadh, (2021)
The results of the study found that the intention to buy healthy food by consumers in Saudi Arabia increased. Women experience more anxiety about the COVID-19 pandemic than men, and they take sufficient precautions to avoid contamination. Fear of COVID-19 is also stronger among the elderly population than younger people. There was a decrease in visits to shops, restaurants and markets. Gender and age moderated the relationship between fear of COVID-19 and online purchase intentions.
19) Ahmed, (2021)
Uncertainty during the COVID-19 pandemic raises concerns about lost income, health problems, and causes market demand to decline for certain products.
20) Sheth, (2020)
The COVID-19 pandemic has changed the way consumers shop. They turn to online. Businessmen

who have offline stores must be able to adapt their business to current circumstances. Offline store entrepreneurs provide omni-channel services, namely cross-channel business models that prioritize their customer experience. Customers can shop offline or online using various channels.

21) Alessa et al., (2021)
The findings of the research show that the COVID-19 pandemic has a negative impact on business productivity and profits so that many businesses close physically. In addition, employee efficiency has also decreased in Saudi Arabia. Many entrepreneurs are turning to online platforms due to restrictions imposed by the government, it is also driven by the increasing demand for online.
22) Guthrie et al., (2021)
Online buying behavior has developed in France during the COVID-19 pandemic as a result of reacting, coping, and adapting during the crisis during the pandemic. The research framework uses React-Cope-Adpt (RCA). The results of the study found that online consumers engage in problem- and emotional-oriented coping behaviors. Coping behavior is a constant change in cognitive behavior in an effort to cope with internal or external demands that exhaust or exceed individual resources (Lazarus & Folkman, 1984). Purchase of health products increases in the adaptation phase (focus on the problem) as a form of reducing stress. Purchase of personal care items (focus on emotions) as a way to take your mind off COVID-19. Thus it can be concluded that stressful life events during the pandemic can result in online buying behavior.
23) Trong & Tran (2021)
The results of the study found that there was a positive effect of moderating fear of the COVID-19 pandemic on the relationship between Perceived Effectiveness of E-commerce Platforms (PEEP) on economic benefits, and sustainable consumption.
24) Jílková (2021)
The COVID-19 pandemic crisis has increased e-commerce revenue in Europe, which grew by 10%. Consumers of all generation groups are making online purchases of goods and services at a higher rate during the COVID-19 pandemic. The increase occurred as of 1 May 2020 in consumption of non-alcoholic food and beverages, online education services, and online content. In March 2020 and April 2020, there was a decrease in spending on non-food categories such as online booking of recreational activities, transportation tickets, body care, and fashion clothing, footwear, and accessories. Based on the survey results, respondents prefer to shop online because they are afraid of the COVID-19 pandemic, the desire to feel safe at home, and global government restrictions. Online consumers are more than the baby boomers generation group. They prefer to shop online to avoid the risk of contracting the virus.
25) Alhaimer (2021)
The results show that risk susceptibility (contagion to the virus), severity of risk (death), and risk of formal punishment (imposed on those who violate the lockdown rules) positively influence consumer online purchasing behavior in Kuwait, while product risk, financial risk, and non-consumer delivery risk does not show a significant effect. The factors that influence consumer online shopping behavior in non-emergency (normal) times are different from those during emergency times.

The results of the review show that the effects of the COVID-19 pandemic are global. Many people are experiencing tremendous fear of the virus. People become over protected towards themselves and their families. Feel more comfortable to avoid crowds. However, excessive worry over an uncertain situation creates pressure. Many people have lost their jobs or experienced a decline in income. Many people also lost family members due to the outbreak. Individuals seek activities to

reduce stress such as using social media for entertainment, playing online games, and shopping online. According to research results (Hama, 2001) it takes a certain amount to be spent in order to reduce stress, but large amounts of money cannot reduce stress. Business people can take advantage of online platforms to offer their products during the current pandemic because according to Jílková (2021) dan Nguyen et al., (2021) online purchases have experienced a significant increase. Business people must maintain web quality, consumer personal data security, delivery accuracy, and ease of payment methods, because based on previous studies Veybitha et al., (2021) these are individual considerations for making online purchases. The COVID-19 pandemic also has an impact on changing the behavior of older consumers, they are motivated to learn to shop online during the pandemic for fear of contracting the virus. They will continue shopping online after the pandemic ends because they feel comfortable (Kim, 2020).

4. Conclusion

The COVID-19 pandemic has created tremendous fear. Uncertain situations put people under pressure. Many people lost family members due to the virus, lost their jobs and resulted in a decline in income. It encourages individuals to make online purchases in search of pleasure. Meanwhile, the inhibiting factor is a decrease in income. Fear of disease increases online purchases of food and health products. Meanwhile, the need for pleasure increases the purchase of online games and grooming products. Women have a greater potential to shop online.

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