Impact of the First Phase of Movement Control Order during the COVID-19 pandemic in Malaysia on purchasing behavior of Malaysian Consumers

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ABSTRACT

With the COVID-19 pandemic, countries around the world are affected and taking drastic steps to curb the spread of the virus by implementing Movement Control Order (MCO) and lockdowns. The feeling of depression and uncertainty of many Malaysians have resulted into a sense of panic and fear. The aim of this study is to explore Malaysian consumers' consumption behavior during the first phase of MCO due to COVID-19. This study employed Theory Planned Behavior as an underpinning theory to explain consumer behavior during this pandemic. 231 respondents were chosen using convenience sampling technique. The data was analyzed and interpreted using the statistical package SPSS and version 3.2.9 of the Structural Equation Modeling Partial Least Square (SEM-PLS). The study showed mass and social medias inputs were influential in assessing the severity of the crisis, and thereby impacting the shopping experience. This study confirmed that Malaysian Fear of Missing Out (FoMO) was a vital variable in purchasing behavior during the MCO's first phase.

Introduction

In January 2020, the World Health Organization (WHO) declared the outbreak of the novel coronavirus infection, COVID-19, as a public health emergency of worldwide concern (World Health Organization, 2020a). WHO declared COVID-19 as a pandemic in March 2020 (World Health Organization, 2020b). As COVID-19 pandemic continues to spread across the globe, the world order has been disrupted including how consumers behave in purchasing daily essentials. Governments around the world are taking stringent precautions by imposing strict restrictions, quarantine, wearing of mask and social distancing as there is no vaccine to curb the pandemic. The imposed ruling by governments in countries which are affected have directly impacted on consumption patterns (Roy et al., 2020). In Malaysia, upon the Prime Minister's announcement of the first phase of Movement Control Order (MCO) from March 18th to April 1st 2020, the Malaysian public panicked into a purchasing frenzy. Although the Malaysian government has consistently addressed the nation with reminders not to panic and with assurance that there is sufficient daily necessities, especially food; the various postings about long queues and empty shelves in supermarkets continued to circulate on social media causing panic among Malaysian consumers.

Previous studies on behavioral studies during a pandemic, had shown that an epidemic or pandemic outbreak can

cause major disruption on production, investment and consumer expenditures (Jung et al., 2016). Therefore, understanding the indirect, but strong effects of pandemics on purchasing behavior of essential goods are crucial and would provide important implications and guidance for policymakers, as well as practitioners aiming to counteract panic buying. However, little research has investigated how pandemic outbreak affects individual shopping behaviors and consumption, especially in the Malaysian context. Previous studies have generally focused on the total burden of epidemics on populations based on aggregate data and on micro-economic perspective (Gubler, 2002; Jung et al., 2016).

Consumers' opinions vary according to circumstances; degree of severity, patterns of the shopping channels, whether online and offline have impact on consumer behavior (Smith, 2009). A research in the Netherlands has pointed out that a number of outbreak events have triggered perceived risk in purchasing behavior at supermarkets and supply food chains (Hutjens, 2012). Meanwhile, another recent research in Bangalore (India) has shown that 50% of their consumers spent time searching for information and purchasing products via online platforms (Shyam and Abirami, 2020).

The above study on purchasing behavior related to COVID-19 (Shyam and Abirami, 2020) has resulted in panic situations among consumers in Bangalore, India. The findings of this study concurred with previous studies on purchasing behavior of routine products in bulk during COVID-19. Meanwhile, the findings from Hutjens (2012) study have gained a holistic view of consumer behavior in the long-term perspective of a crisis. This research focused primarily on consumer behavior in consumption of products due to the outbreak of an animal disease in the Netherlands from 2003 to 2009, which included outbreaks of SARS virus and H1N1 influenza. Numerous multi-dimensional approaches are being used in various magnitude time series to evaluate the factors that impact consumer behavior such as the event, perception of risk, fear, and intent of behavioral changes. Thus, it can also be postulated that the purchasing behavior will change during a pandemic like COVID-19.

Therefore, due to the parallels in the cases and associated risk factors, the Hutjens (2012) research adapted with modification to fit the Malaysian context is deemed appropriate for this study. The aim of this study is to identify changes in Malaysian purchasing behavior and to investigate the indirect or mediators' role between crisis magnitude and purchasing behavior during the COVID-19 first phase of the MCO. This study will significantly close the research gap in understanding changes in Malaysian consumer purchasing behavior of essential household goods during a pandemic crisis such as COVID-19, and the mediation effect of shopping experience and the Fear of Missing Out (FoMO).

Literature Review

Recently, numerous disease outbreaks such as SARS, HINI influenza (Hutjens, 2012; Roy et al., 2020; Shyam and Abirami, 2020) and now the COVID-19 pandemic have caused global consumers to have a high level of anxiety and panic that is obviously shown in their shopping patterns. To further understand the phenomenon of this new buying pattern, various theories were examined. After an extensive review of literature, the most appropriate theory identified to underpin this study is the Theory of Planned Behavior (TPB) (Ajzen, 1985).

TPB identifies three basic factors that affect an individual's intended behavior including attitude, subject norms, and perceived behavioral control. In making decisions in conditions of natural disasters or epidemics, many studies have used this model as a basic theory to understand consumers' buying intentions during uncertain times (Daellenbach, Parkinson, and Krisjanous, 2018; Deng et al., 2017; Hutjens, 2012; Paton, 2003). Some studies added factors or incorporated elements into the model to effectively explain the relationships between the research variables (Gkargkavouzi, Halkos, and Matsiori, 2019; LópezMosquera and Sánchez, 2012) and the research results of these studies have proven their hypotheses effectively. Further, many previous studies have suggested adding other relevant variables such as environmental factors while studying consumer's intentions (Pavlou and Fygenson, 2006; Hsu and Huang, 2012; Chen and Tung, 2014; Choi and Johnson, 2019), and in this study variables such as media, crisis magnitude, shopping experience and Fear of Missing Out (FoMO) are included to measure purchasing behavior during the first phase of MCO in Malaysia.

The Theory of Planned Behavior (TPB) is used to explain the changes in consumer behavior due to drastic changes that increase irrational buying due to of fear. Two of the three important pillars used in TPB, subjective norm and perceived behavioral control, describe changes in consumer behavior due to a crisis (Ajzen, 2002) which impacts the purchase intention or behavior.

Consumers' decisions are influenced by social norms known as subjective norm in TPB (Ajzen, 1985).

Consumers or individuals usual act on or react to how they perceive what others are doing and approve/disapprove (Cialdini and Goldstein, 2004; Bavel et al., 2020). Informational influence occurs when people use others' behavior as input for reasonable interpretations and responses (Bikhchandani, Hirshleifer, and Welch, 1998) and this is stronger when people are uncertain and outcomes are important (Baron, Vandello, and Brunsman, 1996). Normative influence occurs when people conform to social approval and is associated with more conformity in public than private (Sowden et al., 2018).

Performance of a behavior is influenced by the presence of adequate resources and ability to control barriers to behaviors, such as money, time and knowledge (Ajzen, 1985). The more resources and fewer obstacles individuals perceive, the greater their perceived behavioral control and the stronger their intention to perform behaviors (Ajzen and Madden, 1986). This study examined the fear of lack of goods sold, influences on the purchasing behavior of consumers, and its effects on the shopping experience during the first phase of MCO in Malaysia.

The research framework of this study is based on the Theory of Planned Behavior (Ajzen, 1985) and an adaptation of Hutjens (2012) which is one of the most recent and relevant to meeting the objectives of this study. The Hutjens (2012) study is also based on TPB (Ajzen, 1985) and factors such as crisis magnitude, media and risk were adapted from Rountree and Land (1996) and Warr (1987).

Variables in the framework

Media has been proven to be a very important element in influencing consumers' decision making process (Taining, 2012; Sema, 2013). Social media and sharing experiences on a specific product, service and event could have a big impact on the fear element for consumers (Argan and Argan, 2018) such as empty shelves, long waiting queues and "out of stock" statement. Further, the authors have agreed that social media played an important role in molding this fear, as well as the fear of missing out (FoMO) among consumers. Meanwhile, mass media include all methods of transmitting messages such as newspapers, radio, television and the internet (Pasek et al., 2006). According to Aggarwal et al., (1998), mass media is 'informational' in nature. Mass media has some advantages represented by its ability to reach a large audience rapidly, create knowledge and spread information (Rogers, 1995). The significant influence of mass

media on subjective norm has been validated in various studies (Conner et al., 2001; Limayem et al., 2000; Zolait and Sulaiman, 2009). This study explored the effect of mass media on the crisis magnitude perceived by the consumers.

Crisis magnitude is a concept which characterizes an international crisis as a whole (Ben-Yehuda and Sandler, 1998). It focuses on the extent of disruption which takes place during the crisis period and identifies three specific domains in which disruption occurs. Crisis magnitude, an indicator of how serious is the COVID-19 pandemic from the consumer's perspective from the input received via mass media and social media, is one of the independent variable in this study. In this study, it is assumed that changes in the overall magnitude of crisis reflect shifts in patterns of shopping experience in the first phase of MCO in Malaysia.

Literature has defined shopping experience as an essential enjoyable personal and social activity (Backstorm, 2011). Customer shopping experience emerges as a complex encounter between two following sets of factors: (1) spatial–material (including physical layouts, objects and atmospheric cues) and (2) social dynamics (including cultural, emotional, historical and cognitive aspects) (Ali, 2015). Shopping experience attributes which influence buying behavior include enjoyment, convenience and social interaction (Jarvenpaa and Todd, 1997). Past studies have confirmed that negative shopping experience can lead to a stressful environment due to fears about daily consumption products, as well as purchasing pattern (Baker, Gentry, and Rittenburg, 2005). Yet, there is scarce literature on consumer experiences during a pandemic crisis.

This research will further investigate the impact of FoMO (direct, indirect or mediators) on purchase behavior during a crisis. Previous studies have shown that, due to FoMO, people show a strong tendency and willingness to change their behavior to follow and imitate the collective or group, reflecting the desire not to be separated from the mainstream, and to be the same as others (Kang, Cui and Son, 2019). Previous studies have also shown that individuals are frequently affected by decisions of others and prefer to follow traditional community social values and behaviours (Kastanakis and Balabanis, 2012; Leary et al., 2013). These emotions stem from the desire to integrate into the mainstream society and the fear caused by lack of household products during the crisis. FoMO-related research have identified these emotions mainly as a sort of mental state and emotional change that could lead to excessive use of social media, smartphone, and alcohol consumption (Abel, Buff and Burr, 2016; Hodkinson, 2016).

The research framework used in this study (Ajzen, 1985; Hutjens, 2012) shows the relationship between an event and behavioral intention with shopping experience and FoMO as mediators. The media amplification (mass media and social media) impacts on personal relevance and an anxious state of the crisis magnitude. Although Zajonc (1980) states that cognition does not necessarily precede affect, literature with regard to risk perception and fear implies that risk perception precedes fear and not the other way around (Rountree and Land, 1996; Warr, 1987). The current study will follow the approach as defined by Hutjens (2012) which was based on a study by Rountree and Land (1996) and Warr (1987).

The following 14 hypotheses and the research framework was developed based on the discussion above:

H1: Mass media positively influences crisis magnitude during the first phase of MCO in Malaysia due to COVID-19

H2: Social media positively influences crisis magnitude during the first phase of MCO in Malaysia due to COVID-19

H3: Crisis magnitude negatively influences shopping experience during the first phase of MCO in Malaysia due to COVID-19

H4: Shopping experience positively influences FoMO during the first phase of MCO in Malaysia due to COVID-19

H5: FoMo positively influences purchasing behavior during the first phase of MCO in Malaysia due to COVID-19

H6: Mass media mediates crisis magnitude on shopping experience during the first phase of MCO in Malaysia due to COVID-19

H7: Social media mediates crisis magnitude on shopping experience during the first phase of MCO in Malaysia due to COVID-19

H8: Mass media mediates crisis magnitude and shopping experience on FoMO during the first phase of MCO in Malaysia due to COVID-19

H9: Social media mediates crisis magnitude and shopping experience on FoMO during the first phase of MCO in Malaysia due to COVID-19

H10: Crisis magnitude mediates shopping experience on FoMO during the first phase of MCO in Malaysia due to COVID-19

H11: Shopping experience mediates FoMO on purchasing behavior during the first phase of MCO in Malaysia due to COVID-19

H12: Crisis magnitude mediates shopping experience and FoMO on purchasing behavior during the first phase of MCO in Malaysia due to COVID-19
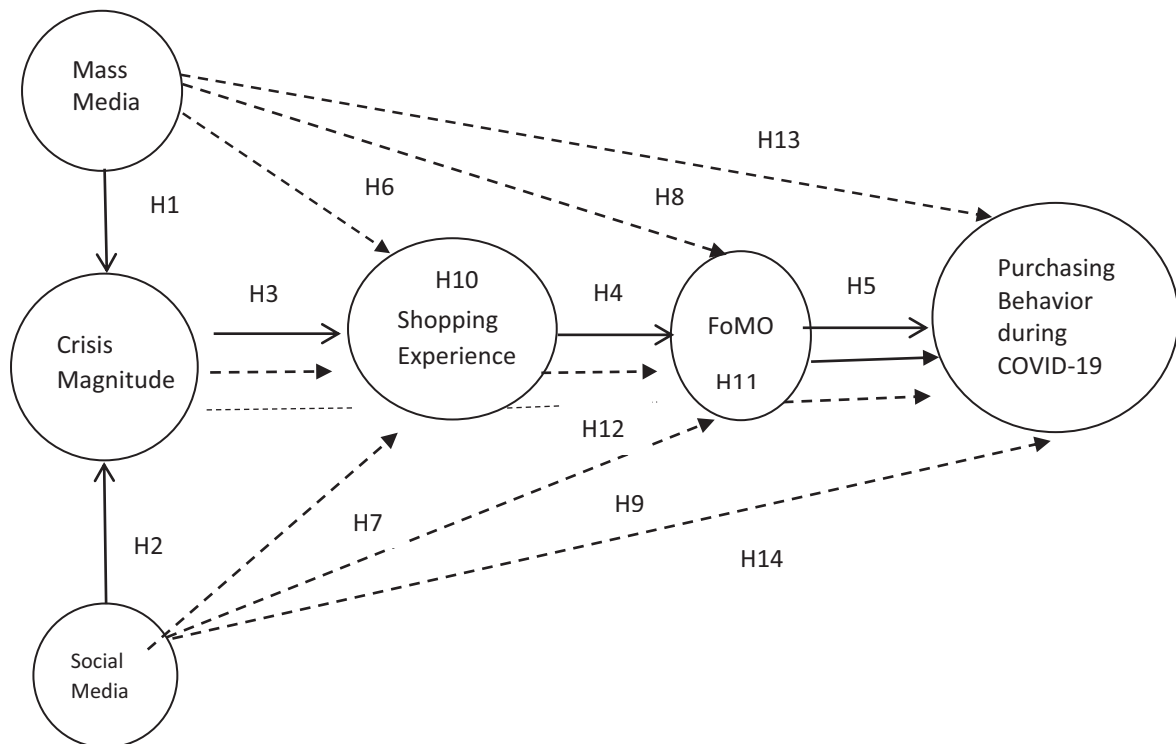

Figure 1: Proposed Research Framework adapted from Hutjens (2012)

H13: Mass media mediates crisis magnitude, shopping experience and FoMO on purchasing behavior during the first phase of MCO in Malaysia due to COVID-19

H14: Social media mediates crisis magnitude, shopping experience and FoMO on purchasing behavior during the first phase of MCO in Malaysia due to COVID-19

Methodology

Research design, Instruments, Sampling and Data collection procedures

In order to understand purchasing behavior of Malaysians during COVID-19 MCO, this study was designed and conducted through quantitative method. Convenience sampling technique was employed and 231 respondents were selected as sample. This sample size was obtained by using tabulation Krejcie and Morgan (1970), with maximization of the 384 sample size and 212,257 consumer spending population in Malaysia (Statistics Department of Malaysia, 2020). Since this is on-going research work, 237 sets of questionnaire were distributed during the first phase and 231 sets were approved as the rejected sets had more than 50 percent of data missing in the questionnaire.

The questionnaire was adapted from various sources such as crisis magnitude (Ben-Yehuda and Sandler, 1998), mass media (Shoaib et al., 2012), social media (Voramontri and Klieb, 2018), shopping experiences (Thomas and Harry, 2004), FoMO (Kang, Cui and Son, 2019) and purchasing behavior (Ajzen, 2002; Vinodh et al., 2018). The questions were measured in 7 point Likert scale (purchasing behavior, FoMO) and 7 point sematic scale (crisis magnitude, mass media, social media, shopping experience. A pilot was performed with ten (10) respondents to evaluate respondents' understanding of the questions before the actual data collection process. Then, the questionnaire was constructed by using Google Form and distributed via social media (like Facebook, Twitter and WhatsApp) to reach out to the respondents. It took about two weeks to complete data collection (March 20, 2020 to April 1, 2020). Finally, data was analyzed through statistical package SPSS and Structural Equation Modelling version 3.2.9 (PLS-SEM) (Hair et al., 2017; Hair et al., 2018). The benefit of using PLS-SEM for testing mediation variables is to reduce biasness and the bootstrapping procedure increases data reliability through no assumptions about the distribution of the constructs and sampling methods (Hair et al., 2017).

Results

Respondent's information

The respondents who were Malaysian consumers were 66 percent (152) females compared to 34 percent (79) male consumers. All of the respondents were aged from under 21 to over 70 years. There was a representative balance from age groups; the largest respondents were from 21 to 30 years (36%), followed by 41 to 50 years (22%), 31 to 40 years (20%), and 51 to 60 years (10%). The lowest age group was over 70 years old (0.9%).

Forty-one percent (41 percent) of respondents were ethnic Malays, Indians (36 percent), Chinese (18 percent) and minority ethnic (10 percent). Minority ethnicity is represented by Sikh, Bajau (Sabah) and Iban (Sarawak). The majority of Malaysian household members in one family were over six persons with 33 percent (75), four persons with 20 percent (45), five persons with 18 percent (42) and the lowest constituting 3.5 percent (8).

The Malaysian consumer income ranged from below RM 12,000 to above RM 120,000 annually. The first group was the lower income category of 26 percent (60) of below RM 12,000, and the second group was the medium income group with 24.7 percent (57) from RM 60,000 to RM 119,999. A small percentage of Malaysians respondents' were infected by COVID-19 (5 percent or 11) and their family members (6 percent or 14) during the first phrase of MCO (refer to Table 1). The data clearly showed that there were two broad income groups in Malaysia's consumer market; one was lower income, and another was high income.

Hypotheses testing

Before the measurement and structural data was performed in PLS-SEM, common method variance (CMV) analysis was the initial step to test data biasness. Data was analysed using Harman's single factor to test factors that explain the majority of variance (Podsakoff et al., 2003). The first factor explained 47.23 of the variables below threshold 50% (MacKenzie and Podsakoff, 2012). Therefore, there was no biasness issue in this study.

Assessment of the measurement model

The assessment of the measurement model involves evaluating reliability (i.e. composite reliability or CR) and validity (i.e. convergent and discriminant validity). The

Table 1: Respondent's profile

No	Demography Items	Frequency	Percentages (100%)
1.	Gender		
	Male	79	34.2
	Female	152	65.8
2.	Age groups		
	< 20 years	19	8.2
	21-30 years	82	35.5
	31-40 years	47	20.3
	41-50 years	52	22.5
	51-60 years	23	10.0
	61-70 years	6	2.6
	> 70 years	2	.9
3	Ethnic		
	Malays	95	41.1
	Chinese	41	17.8
	Indian	73	31.6
	Others (i.e. Sikh, Iban and Bajau)	22	9.5
4	Household member		
	1 people	8	3.5
	2 people	25	10.8
	3 people	36	15.6
	4 people	45	19.5
	5 people	42	18.2
	More than 5 people	75	32.5
5	Annual Income		
	< RM 12,000	60	26.0
	RM12,000 – RM 23,999	33	14.3
	RM24,000-RM35,999	26	11.3
	RM36,000-RM59,999	28	12.1
	RM60,000-RM119,999	57	24.7
	>RM120,000	27	11.7
6	Individually infected by COVID-19		
	Yes	11	4.76
	No	220	95.53
7	Family members infected by COVID-19		
	Yes	14	6.06
	No	217	93.4
		231	100

loading factors, CR and Cronbach's alpha (CA) values should be above threshold point 0.7 (Hair et al., 2017; Becker, Rai, and Rigdon, 2013). In this study, all the items of the construct values were above threshold point above 0.7 (Table 2). The average variance extracted (AVE) values ranged from 0.630 to 0.811 which are higher than the cut-off point 0.5, and indicates that the observed variables can measure the latent variables and the convergent validity of each construct. Collinearity issues were tested through variance inflation factors (VIF), and all the items were below threshold value of 3.3 or below 5 (refer to Table 2) (Diamantopoulos and Siguaw, 2006). Therefore, we concluded that the collinearity level for this study is low. The R-squared @ R^2 and GoF model fit index (SRMR metric or Standardized Root Mean Square Residual) are included in the Table 2 with R^2 values for crisis magnitude (0.238), shopping experience (0.042), FoMO (0.035) and purchasing behaviour during COVID-19 (0.198). The PLS-SEM analysis was used to test the prediction model with theory; therefore the model fit is not compulsory. Moreover, PLS-SEM scholars (Hair et al., 2018; Ringle et al., 2019) have encouraged including the goodness of model fit (SRMR) which is 0.073 for this study, lower than the cut-off point 0.08 (Henseler, Ringle and Sarstedt, 2015).

Table 3 represents the discriminant validity assessment model through Heterotrait-Monotrait of corrections (HTMT) measure, based on Henseler et al. (2015). HTMT model provides accurate information of the discriminant value compared to Fornell-Larcker criterion (Henseler et al., 2015). Therefore, the researchers selected discriminant validity HTMT result to explain the validity in this study. The results show that all the HTMT values were significantly lower than threshold value of HTMT <0.85 (Kline, 2010) (see Table 3).

Assessment of structural model

In the structural model, the analysis begins with bootstrapping procedure with 2,000 re-sample and the results are significant values and beta or path coefficients of 95% confidences intervals (lower limits @ LL, upper limits @ UL) and Q^2 (Ringle et al., 2018). The hypotheses in this study tested direct and indirect effects (mediation) relationships. Based on Table 2, all path coefficients (standard beta) are positive (β = 0.281, 0.304, 0.186, 0.445) except for H3 which is in a negative relationship (β=-0.204). The five direct hypotheses had positive network and significant relationships. The first hypothesis (H1) was tested and significantly supported the relationship between mass media and crisis magnitude (p = 0.009, LL = 0.085, UL=0.490). The second hypothesis was tested between the social media and crisis magnitude (p = 0.004, LL = 0.077, UL=0.495); and it was significantly supported. The third hypothesis was between crisis magnitude and shopping experience with a significant relationship (p = 0.007, LL = −0.004, UL = 0.030). The fourth hypothesis had a significant relationship between shopping experience and FoMO (p = 0.002. LL = 0.004, UL = 0.030). Similarly, the fifth hypothesis had a significant relationship between

Table 2: Assessment of the measurement model

Constructs	Items	Loading Factors	[a]VIF	[b]CA	rho_A	[c]CR	[d]AVE	[e]R²
Crisis magnitude				0.812	0.824	0.887	0.724	0.263
	MCO (low relevancy-high relevancy)	0.851	1.922					
	Breakout (low relevancy-high relevancy)	0.856	2.106					
	Social Impact (low relevancy-high relevancy)	0.846	1.571					
FoMO				0.942	0.948	0.955	0.811	0.035
	Anxious	0.862	2.872					
	Keep tabs on others	0.911	3.750					
	Worried when others buy	0.932	4.945					
	Fear of others stocking up	0.872	2.885					
	Follow others shopping pattern	0.923	4.604					
Mass Media				0.827	0.833	0.885	0.659	
	MCO (small amount-big amount)	0.758	1.563					
	Government decision (small amount-big amount)	0.840	1.880					
	Economic (small amount-big amount)	0.825	1.941					
	Behavior of people (small amount-big amount)	0.822	1.853					
Purchasing behavior during COVID-19				0.842	0.870	0.891	0.673	0.198
	Purchase like others	0.812	2.104					
	Purchase the same quantity	0.855	1.882					
	Purchase at same place	0.771	1.981					
	Important to follow	0.840	1.883					
Shopping Experience				0.893	0.906	0.925	0.756	0.042
	Not Fun-Fun	0.893	3.606					
	Not Thrilling-Thrilling	0.790	1.559					
	Not delightful-Delightful	0.877	3.325					
	Unenjoyable-Enjoyable	0.914	3.762					
Social Media				0.857	0.884	0.895	0.630	
	MCO (small amount-big amount)	0.760	1.420					
	Government decision (small amount-big amount)	0.832	2.413					
	Economic (small amount-big amount)	0.798	2.322					
	Information (small amount-big amount)	0.817	2.070					
	Behavior of people (small amount-big amount)	0.759	1.870					

Note: [b] Cronbach's Alpha (CA); [c] Composite reliability (CR); [d] Average variance extracted (AVE); [a] Variance inflation factors (VIF), [e] R-squared (R²)

the FoMO and purchasing behavior (p=0.000, LL=0.004, UL=0.030). Therefore, H1, H2, H3, H4 and H5 were supported and indirect effect hypotheses were tested from H6 to H15.

Further, this study examined the indirect or mediation effects (Preacher and Hayes, 2008; Hayes, 2018) of Malaysians purchasing behavior pattern during COVID-19. Specifically, there were three constructs that served as mediators which are crisis magnitude, shopping experience and FoMO on purchasing behavior during COVID-19.

Based on Table 4, there were only two approaches that yielded significant relationship for hypotheses H7 and H11. The hypothesis (H7) on the effect of social media to crisis magnitude to shopping experience was ($\beta = -0.063$) and p = .043 (LL = −0.135, UL = −0.014). The eleventh hypothesis (H11) had indirect effect relationship with significant value between shopping experience to FoMO to purchasing behavior during COVID-19 ($\beta = 0.083$, p = 0.008, LL = 0.027, UL = 0.145). Other hypotheses like H6, H8, H9, H10, H12, H13 and H14 had negative path coefficient ($\beta = -0.057$, $\beta = -0.011$, $\beta = -0.012$, $\beta = -0.038$,
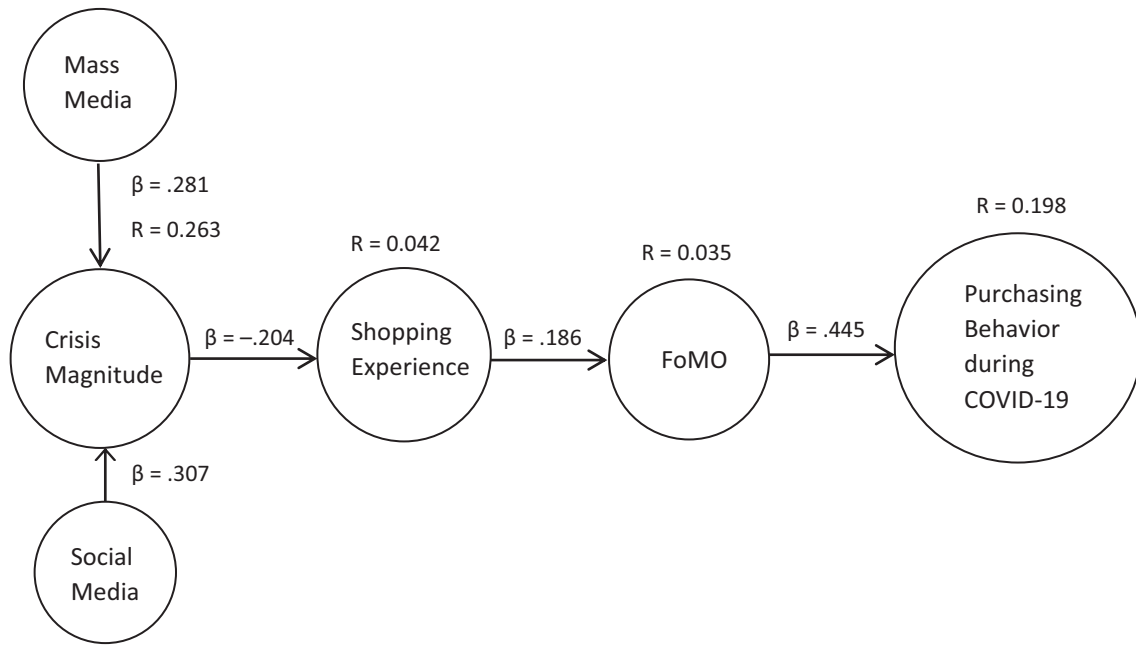
Figure 2: Purchasing behavior of Malaysian consumers during COVID-19

Table 3: Discriminant Validity (HTMT)

	Crisis magnitude	FoMO	Mass Media	Purchasing behavior during COVID-19	Shopping Experience	Social Media
Crisis magnitude						
FoMO	0.244					
Mass Media	0.524	0.216				
Purchasing behavior during COVID-19	0.116	0.478	0.084			
Shopping Experience	0.225	0.195	0.194	0.247		
Social Media	0.500	0.194	0.588	0.166	0.140	

$\beta = -0.01$, $\beta = -0.005$, $\beta = -0.005$) and insignificant relationship (p = 0.112, p = 0.232, p = 0.147, p = 0.084, p = 0.124, p = 0.270, p=0.196) (see Table 4). Therefore, indirect effects hypotheses H7 and H11 were supported and seven other hypotheses were not supported (see Table 4). Table 4 also show the effect sizes (f^2) result. According to Cohen (1988), weak effect sizes occur for all the approaches (0.036 to 0.246) in the analysis of purchasing behavior during COVID-19. Cohen (1988) evaluated effect size as 0.02, 0.15 and 0.35 representing small, medium and large effects respectively. Therefore, we concluded that the effect size in this study was between small (social media, mass media, crisis magnitude, shopping experience, purchasing behavior) and medium (FoMO). Another assessment in structural model is Q^2 or Q-squared known as the blindfolding-based cross validated redundancy measure. The result of Q^2 in this study ranged from crisis magnitude (0.166), mass media (0.026), purchasing behavior (0.121) and social media

(0.026); as a rule of thumb Q^2 values high than 0 (Shmueli et al., 2019). It was measured 0.25, 0.50 and 0.75 as small, medium and large respectively as predictive relevance of the PLS-SEM model. Therefore, the PLS-SEM predictive values (Q^2) ranged from small to medium.

Discussions

This research has two main objectives to be achieved. The first aim of the research was to explore Malaysian consumer purchasing behavior characteristics during the first phase of the MCO due to COVID-19. The second objective was to investigate the direct and indirect or mediators' relationship between crisis magnitude to purchasing behavior through shopping experience and fears (FoMO).

In the current study, the majority of Malaysian respondents were female with age ranging from 21 to 30 years.

Table 4: Assessment of the structural model

Hypotheses path Direct effects relationship		Standard beta	Standard deviation	T Statistics	p-values	95% Confidence Intervals (lower limits 2.5%; upper limits 97.5%		Hypotheses decision
H1	Mass Media -> Crisis magnitude	0.281	0.107	2.625	0.009	0.085	0.490	Supported
H2	Social Media -> Crisis magnitude	0.307	0.107	2.870	0.004	0.077	0.495	Supported
H3	Crisis magnitude -> Shopping Experience	−0.204	0.075	2.723	0.007	−0.336	−0.053	Supported
H4	Shopping Experience -> FoMO	0.186	0.059	3.151	0.002	0.069	0.294	Supported
H5	FoMO -> Purchasing behavior during COVID-19	0.445	0.055	8.126	0.000	0.328	0.546	Supported
Indirect effects relationship								
H6	Mass Media -> Crisis magnitude -> Shopping Experience	−0.057	0.036	1.589	0.112	−0.142	−0.006	Not Supported
H7	Social Media -> Crisis magnitude -> Shopping Experience	−0.063	0.031	2.022	0.043	−0.135	−0.014	Supported
H8	Mass Media -> Crisis magnitude -> Shopping Experience -> FoMO	−0.011	0.009	1.196	0.232	−0.035	−0.001	Not Supported
H9	Social Media -> Crisis magnitude -> Shopping Experience -> FoMO	−0.012	0.008	1.452	0.147	−0.034	−0.002	Not Supported
H10	Crisis magnitude -> Shopping Experience -> FoMO	−0.038	0.022	1.731	0.084	−0.090	−0.007	Not Supported
H11	Shopping Experience -> FoMO -> Purchasing behavior during COVID-19	0.083	0.031	2.657	0.008	0.027	0.145	Supported
H12	Crisis magnitude -> Shopping Experience -> FoMO -> Purchasing behavior during COVID-19	−0.017	0.011	1.541	0.124	−0.043	−0.003	Not Supported
H13	Mass Media -> Crisis magnitude -> Shopping Experience -> FoMO -> Purchasing behavior during COVID-19	−0.005	0.004	1.105	0.270	−0.017	−0.001	Not Supported
H14	Social Media -> Crisis magnitude -> Shopping Experience -> FoMO -> Purchasing behavior during COVID-19	−0.005	0.004	1.295	0.196	-0.017	−0.001	Not Supported

Malay is the largest ethnicity with more than six family members and with per annum income below RM 12,000. It clearly showed that moderated consumers are mid-aged Malaysians with lower income groups as well as less affected by COVID-19. Interestingly, the current study demonstrated two different buying patterns. First, during COVID-19 (the new trend), social media and mass media affected the severity of the crisis, but it did not significantly affect the shopping experience of Malaysian consumers. Secondly, FoMO (fear feeling) strongly impacted

Malaysian consumer purchasing patterns. This finding is different compared to the research model by Hutjens (2012) in Netherland during the outbreaks of animal diseases. Hutjens (2012) showed that there is a strong link and a substantial relationship between outbreaks of animal diseases and high perceived risk, as well as consumer panic or psychology.

The results emphasize that there is indeed a strong relationship between mass media and social media

among consumers on the crisis magnitude of COVID-19 in Malaysia. Crisis magnitude and shopping experience had a negative relationship and it was significant, so we hypothesis negative relationship means crisis magnitude does not influence shopping experience. This finding is similar to previous studies, whereby crisis magnitude may evoke fear and provoke negative perceptions of shopping experiences (Larson and Shin, 2018). Social psychology has often noted that expressed attitudes do not always align with behavior (Kraus, 1995), thus, fearful consumers may report that they perceive the shopping environment as less inviting, despite simultaneously experiencing the greatest urge to regulate their emotional experience to be ready for the crisis.

The concept of FoMO is relevant and significant in the context of this study, as shopping experience has a positive relationship to FoMO and FoMO also significantly influence purchasing behavior of household essential goods during the first phase of MCO period in the battle to curb the COVID-19 pandemic in Malaysia. The origins of fear are predominately heightened by mass media and social media, and thus resulting in a chain effect of purchasing behavior.

Most of the previous studies on consumer behavior during a crisis like SARS explored the relationships between variable, but in this current study the researchers have integrated TPB and perceived risk in the form of crisis magnitude. It has extended TPB during crisis duration. The implication of this study is that fear plays the more prominent role than previously anticipated. The government needs to be aware that reports published in mass media and social media can elicit a high feeling of fear among consumers and subsequently alter their purchasing behavior.

Conclusion

This research provides a new view of mass media and social media in creating crisis magnitude, and thus influencing shopping experience of consumers. The role of FoMO should also be considered seriously in any studies on purchasing behavior during any kind of crisis situation such as a pandemic, natural disasters, economic crisis or political turmoil. Future studies can explore the role of socio-demographic of consumers and also purchasing patterns during the initial stage of MCO and the ending stage of MCO. Similar studies can also be replicated in other countries such as Indonesia, Singapore and Thailand which are neighboring countries to Malaysia. A comparison research can be conducted on the purchasing behavior of consumers from developed countries like Singapore with developing countries like Malaysia, Indonesia and Thailand.

Competing Interest Statement

All authors have read and approved the manuscript and take full responsibility for its contents. The authors have declared that no competing interest exists.

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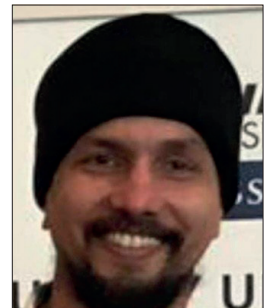
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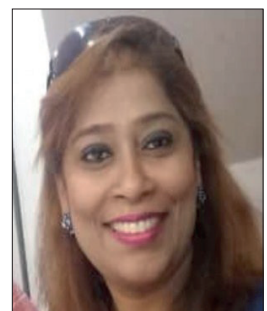
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