

Consumer Behaviour Changes During the COVID-19 Pandemic: A Case Study of Gibraltar

آثار جائحة كوفيد-19 على سلوك المستهلك: دراسة من جبل طارق

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Abstract:

Objectives: The study aimed to assess the change in consumer behaviour in Gibraltar due to COVID-19. The study also intended to evaluate the use and impact of media on consumer behaviour. Consumers' online behaviour during the pandemic was also assessed in the study.

Methods: Quantitative research involving 226 customers from Gibraltar was conducted using a structured questionnaire.

Results: Consumers displayed anxiety and stress due to COVID-19, which ultimately influenced their purchase decisions. However, customers in Gibraltar did not display the stockpiling tendencies. Social media, TV, and word of mouth were the most used communication channels for consumers in Gibraltar. Media worsened the fears related to COVID-19 amongst the consumers in Gibraltar. Consumers resorted to online shopping during the pandemic and experienced an unusual online shopping experience.

Conclusions: The study concluded that consumers in Gibraltar experienced a change in their behaviour because of COVID-19. Marketers are advised to adopt an agile response strategy, focus on customer engagement and experience, support customers' mental health and deploy a crisis management strategy to deal effectively with the crisis.

Keywords: consumer behaviour; stockpiling; anxiety; stress.

الملخص:

الأهداف: هدفت الدراسة إلى تقييم التغير في سلوك المستهلك في جبل طارق بسبب كوفيد-19. وتهدف الدراسة أيضاً إلى تقييم استخدام الوسائط وتأثيرها على سلوك المستهلك. كما تم تقييم سلوك المستهلكين عبر الإنترنت أثناء الوباء في الدراسة.

المنهجية: تم إجراء دراسة كمية شملت 226 عميلاً من جبل طارق باستخدام استبيان منظم.

النتائج: أظهر المستهلكون مشاعر القلق والتوتر بسبب جائحة COVID-19، مما أثر بشكل مباشر على قراراتهم الشرائية. ومع ذلك، لم يُظهر المستهلكون في جبل طارق ميولاً لتخزين المنتجات بكميات كبيرة. وكانت وسائل التواصل الاجتماعي والتلفزيون والتواصل الشفهي هي أكثر قنوات الاتصال استخداماً بين المستهلكين في المنطقة. كما ساهمت وسائل الإعلام في تفاقم المخاوف المرتبطة بالجائحة بين المستهلكين في جبل طارق، اتجه المستهلكون إلى التسوق الإلكتروني خلال الجائحة، مما منحهم تجربة تسوق غير معتادة عبر الإنترنت.

الخلاصة: خلصت الدراسة إلى أن المستهلكين في جبل طارق شهدوا تغيراً في سلوكهم بسبب جائحة COVID-19. ويوصى بأن يعتمد المسوقون استراتيجية استجابة مرنة، ويركزوا على تفاعل العملاء وتجربتهم، ويدعموا الصحة النفسية للعملاء، ويطبقوا استراتيجية لإدارة الأزمات للتعامل بفعالية مع الأزمة.

الكلمات المفتاحية: سلوك المستهلك؛ تخزين؛ قلق؛ ضغط.

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1 Introduction

COVID-19 has caused fundamental disruptions in businesses, wherein not only has their supply chain been tested to its capabilities, but their survival is also at stake. Consumers are analysing their purchasing behaviour through renewed lenses, and this behaviour change might endure in post-pandemic scenarios. Hence, marketers must apprehend this change in the consumers' buying behaviour to stay relevant for the customers during and after the crisis. Marketers also need to comprehend this change in the basic orientations of customers towards health, hygiene, society, and business so that they might adopt agile, responsive and responsible strategies. The whole world came to a standstill due to the COVID-19 pandemic. The dreaded disease had severe health repercussions, and the infectious nature of the disease resulted in lockdowns across the globe. It also negatively affected businesses and economies regarding production and markets (Asaad, 2021; Asaad & Al-Delawi, 2022; Asaad et al., 2023). The looming uncertainty about the nature of the disease and the non-existent plausible solutions altered people's behaviour and caused panic amongst them, which also altered their consumption patterns (Barnes, 2020). People experienced a change in their attitudes and purchasing patterns, and they bought more necessities such as food, medicines, and sanitary items. They were also found indulging in stockpiling or hoarding items. Accenture report (2020) claimed that due to restricted physical movement, people relied more on digital channels and exhibited unusual online buying behaviour. Reeves et al. (2020) contend that such alterations in consumer behaviour might have long-lasting effects and continue in post-pandemic situations.

Digital communication technologies have proliferated recently, and media outreach has been significantly enhanced. Digitisation and technological advances facilitate a more excellent and diverse coverage of news stories in real-time. As a result, media played a dual role in this pandemic wherein, on the one hand, it fulfilled the informational needs of the people. In contrast, it also aggravated people's anxiety and worsened their COVID-19-related fears on the other hand (Taylor, 2020). Some previous studies emphasise the causes and impacts of a pandemic on consumer behaviour Loxton et al. (2020), Wang et al. (2020a) and Li et al. (2020). However, their small sample size and qualitative methodology offer limited information. Hence, such detailed assessment of consumer behaviour during crisis times like COVID-19 would help marketers refine their strategic outlook and better prepare them for similar future situations. So, the current study examines the effects of the pandemic on consumer behaviour in Gibraltar.

Gibraltar is a British overseas territory famous for its British Naval base. It is located at the southern tip of the Iberian Peninsula and covers an area of approximately 6.8 km². It borders Spain and has a population of 33,683 (Worldometers.info, 2021). Gibraltar is a close-knit society with close communication between relatives and friends. Gibraltar is also a fully vaccinated country, still observing a spike in recent COVID-19 cases (Reuters, 2022). Hence, it would not be surprising if consumers in Gibraltar exhibit different purchase behaviours that must be known to practitioners and marketers. So, this study represents a detailed assessment of consumer behaviour in Gibraltar during the pandemic and aims to add value by providing relevant insights into consumer behaviour. The findings from the present study would not only help the marketers but would also provide opportunities for further research in this field. Hence, the study would add to the body of knowledge of consumer behavioural patterns during crises and may assist decision-makers in formulating measures and strategies to handle such future pandemics successfully. The study has been divided into various sections. The literature review section offers a review of available studies to know the relevant gaps in the accessible literature. This section is followed by the methodology section, wherein philosophy, approaches, and research strategies related to objectives have been discussed. Findings of the study, discussion, and conclusion follow this section.

2 Literature Review

Since its first reported case in China in late 2019, the COVID-19 outbreak has affected businesses and societies across the globe (Hamzah et al., 2020; Perlman, 2020). World Health Organization (WHO) declared COVID-19 a pandemic on 11 March 2020, which caused government-imposed lockdowns in almost all countries to curb its spread (WHO, 2020). Despite the lockdowns, restrictions, compliances and vaccination drives, COVID-19 is far from being over, and it is almost evident that it will continue to affect the personal, social and economic aspects for a longer time to come. In their study, Zoumpourlis et al. (2020) stress that such restrictions confront the fundamentals of global society and negatively affect its resilience. The world has faced similar crises, too, wherein the Spanish flu in 1918, SARS in 2002, and the Influenza A (H1N1) outbreak in 2009 affected industries

and economies (Barry, 2005). Isolation of the infected was also practised in previous health emergency crises to limit the spread of the diseases. Pitlik (2020) claims that previous crises offered preventive benchmarks to manage the crisis of COVID-19 on the world's economy; however, such yardsticks proved to be inadequate given the high connectedness of economies (Leach et al., 2020; UNCTAD, 2020).

2.1 Effects of the COVID-19 pandemic on consumer behaviour

Arzaba, Nazir, Leyva-Hernández and Muhyaddin (2022) considered the consumer a key stakeholder in the consumption chain. Schiffman and Kanuk (2007) define consumer behaviour as the behaviour of consumers displayed in searching, purchasing, using, evaluating and disposing of products and services. Many factors, such as cultural, social, personal and psychological, affect consumers' behaviour (Stankevich, 2017). Apart from these factors, there are peculiar situations, such as outbreaks of disease, public health scares, natural disasters, economic recessions, etc., that have the capacity not only to alter consumer behaviour but are also incapable of initiating specific irrevocable attitudinal and behavioural changes. Marthur et al. (2003) contemplate that crises affect consumers' attitudes and alter their purchasing behaviour to avoid stress. In their study, Russel and Cheryl (2020), while citing the impact of the recession on consumer behaviour, assert that the recession affected the consumers' attitude and behaviour to a significant extent wherein their spending was reduced, and consumers favoured the cheaper products. More lavish spending was observed towards necessities only. Perriman (2010), while discussing the impact of crises on consumer behaviour, claims that crises like recession affect the personal and psychological makeup of individuals wherein individuals question their beliefs and attitudes held by them before the crisis and exhibit more responsible behaviour to mitigate the effects of unforeseen risk.

Wang et al. (2020a), focussing on the COVID-19 pandemic, contemplate that imposition of extreme restrictions creates panic amongst the public and hence challenges psychological resilience. Lengthy lockdowns and mandatory social distancing rules also changed the purchase habits of consumers (Sheth, 2020). Consumers are experimenting with different purchase patterns and trying to devise an optimal one suitable to this 'new normal'. However, fear persists among the public, and their anxiety is leading towards panic buying. Wang et al. (2020b), further dissecting the purchase behaviour during the pandemic, state that there has been a difference in shopping frequency and expenditures before and during the pandemic. Consumers' purchase frequency has been reduced from 2 to 3 times per week before the pandemic to once a week during the pandemic. Consumers have also decreased their overall expenditure per shopping trip, wherein they are only necessary items during the pandemic. The findings corroborate well with previous studies conducted by Marthur et al. (2003) and Perriman (2010). Russel and Cheryl (2020) assert that decreasing consumer spending is the most common outcome of a crisis. Other authors have challenged and supported this narrative of the similar impact of COVID-19 and other crises. Lustig and Mariscal (2020) argue that the impact of the COVID-19 pandemic cannot be compared with previous crises like SARS and the recession. The author holds that the COVID-19 pandemic has adversely affected individuals, households, organisations, and economies, wherein unemployment and bankruptcies have increased. Such impact was not seen in the previous crisis; hence, it is unique as it brought the world to a standstill and caused enormous economic damage (Canfranc, 2020). However, Loxton et al. (2020) defended the similar impact notion by stating that consumer activities such as hoarding or stockpiling items such as food, toiletries, sanitary, etc. and herd mentality displayed in this pandemic are like the previous crises.

2.2 Theoretical underpinnings of consumer behaviour during pandemic

A popular theory, Maslow's Need Hierarchy theory, explains unusual consumer behaviour. Maslow's need hierarchy theory arranges the five needs, physical, safety, social, self-esteem, and self-actualisation, into a pyramid based on their importance (McLeod, 2007). Maslow contemplates that once the lower needs are fulfilled, human beings move to the next level of needs. Physiological needs represent the most basic level of needs, and all humans need to satisfy this level first to survive, as per Maslow's theory (Jisana, 2014). Keane and Neal (2020) contend that panic behaviour observed during COVID-19, wherein people engaged in panic buying and hoarding of necessities like food, drinks, sanitisers, masks, toiletries, etc., was a physiological response, catering to the first stage of Maslow's need hierarchy theory. Herd thinking also played an instrumental role in determining the unusual behaviour of consumers during the pandemic (Loxton et al., 2020). Most customers were driven by the typical thought process wherein they anticipated long-term lockdowns, physical restrictions and shortage of essential items. They bought and stored the items in large quantities to prepare themselves for the lockdown and other adversaries (Banerjee, 2020). The very nature of the disease, which spread very fast amongst the people, further frightened the people who, in turn, sought methods of self-

protection. Such emotional response also triggers panic in other people who resort to similar behaviour to deal with the panic, known as emotional contagion (Hatfield et al., 1993; Goodwin et al., 2011). Taylor (2020) comments that media both the conventional and social media generations fear in people about the pandemic, which further accentuates panic buying.

Faced with uncertainty and risk, such as the COVID-19 pandemic, people could respond by purchasing behaviour to cover their basic needs, as postulated in the first stage of Maslow's Need Hierarchy theory. In addition, because they needed to cover the need for security that Maslow postulates, people began storing products during this uncertainty and crisis to stay safe. Therefore, the following hypotheses were postulated:

Ha1: *There is a change in the purchasing behaviour of consumers in Gibraltar due to the COVID-19 pandemic.*

Ha2: *People stockpiled items during the COVID-19 pandemic.*

Consumer behaviour during a crisis like a pandemic can be explained by the theoretical underpinnings of consumer neuroeconomic analysis, which states that the social context of a consumer gives a significant impetus to the consumer decision-making process (Jeffrey & Putman, 2013). Consumer neuroeconomic analysis contends that consumers panic and look for measures to reduce stress and anxiety in an environment characterised by unclear and unpredictable future circumstances. Brooks et al. (2012) further elaborate on the process and state that the brain's fear centres, namely the amygdala and insula, get activated and cause a spike in fear in uncertain environments or contexts. Yuen et al. (2020) assess consumer behaviour in a crisis threatening the existence from a survival psychology point of view and assert that individuals undergo significant behavioural and psychological changes, and their social lives and health are negatively impacted. In the due process, four primary psychological constructs, namely attitude, motivation, beliefs, and perception, are affected, ultimately disturbing consumer behaviour. Both the stress and anxiety generated by COVID-19 in consumers have been associated with the perception of convenience in online shopping because anxiety and stress have caused consumers to have doubts about leaving their homes or not, difficulty sleeping due to fear of contracting the disease, and feeling uncomfortable when thinking about COVID-19 (Brewer & Sebby, 2021). Based on the above, the following hypothesis is postulated:

Ha3: *Anxiety and stress affected the purchase behaviour during the COVID-19 pandemic.*

2.3 Role of media in COVID-19

Social media has facilitated connectivity, networking and quick information sharing, leading to the transformation of societies (Kucuk, 2007; Smith, 2009). Social media also facilitates the construction of brand perceptions (Kucherov & Zhiltsova, 2021). Hajli (2014) purports that organisations are also using social media to communicate with their customers, wherein the former is espoused to affect the consumers' attitudes and decision-making. Media continues to be a continuous source of information in crisis, too, capable enough to shape the public's ideas, thinking and behaviour. Lachlan et al. (2016) claim that media in crisis time also helps frame a definite perception of the perceived risk. Commenting on the role of media in previous health emergencies like SARS and H1N1, researchers like Schlosser (2005), Hong and Collins (2006), Dry and Leach (2010), Taha et al. (2014) and Pieri (2018) assert that media coverage induces anxiety, speculation, and stress amongst people wherein regular news stories about the adverse impact of pandemic intensify public fear and stress. Kilgo et al. (2019) claim that although the pandemic triggers initial fear amongst the public, the media provokes it further by continuously doing news stories about the pandemic. In their study, Garfin et al. (2020) believed that the media during COVID-19 heightened public fear, as in previous health crises. Research conducted by Peretti-Watel et al. (2020) in France revealed that media coverage of the current pandemic also affected the mental health of people. Researchers like Ahmad and Murad (2020), Naeem (2020) and Islam et al. (2020) also acknowledged the role of media in generating fear about the pandemic and triggering panic purchases. According to these investigations, the media can cause increased fears about the COVID-19 pandemic. Therefore, the following hypothesis is proposed:

Ha4: *Media worsened the fears related to the COVID-19 pandemic.*

2.4 Altered Consumer Behaviour: Outcomes and Future Trends

Researchers have studied the outcomes of changed buyer behaviour in crises like pandemics, wherein most researchers acknowledge that the most significant outcome is unsolicited or impulsive consumption. Hofmann et al. (2012) define impulsive consumption as consuming products without analysing the need and long-term consequences. Lades (2014) asserts that social emergencies like pandemics trigger psychological distress, fear, speculation, and anxiety, leading towards impulse purchases. Mehta et al. (2020), however, suggest that culture

plays a vital role in determining impulse purchases of consumers. In turn, Jakubanecs, Supphellen, and Helgeson (2018) confirm that culture must be considered when in crisis to establish communication with consumers. Panic buying and stockpiling of the items is another consequence of altered consumer behaviour during the pandemic (Yuen et al., 2020). Long and Khoi (2020), Loxton et al. (2020) and Wang et al. (2020c) claim that the risk perception of customers during the pandemic triggered panic buying leading to the mass purchase of various products. During the COVID-19 pandemic, altered consumer behaviour affected offline and online sales in the Fast-moving consumer goods (FMCG) category (Sabanoglu, 2020). The E-commerce industry was better able to manage the COVID-19 pandemic crisis than any other industry. Helmore (2020) mentioned an increase of 37% in Amazon's net income during the pandemic. Similarly, Indian e-commerce giant Flipkart also posted an increase in revenue in 2020 (Punia, 2020). People purchase significant items like toilet paper, hand sanitiser, and wipes online. Multiple factors, including the lockdown, fear, panic buying, uncertainty, etc., led to the surge in online sales during the pandemic (Eger et al., 2020; Brem et al., 2020). During the pandemic, purchasing behaviour was modified due to this increase compared to years prior to the health contingency since it offered them greater convenience, variety, and ease (Wiederhold, 2020; Xu et al., 2020). Therefore, the following hypothesis is proposed:

Ha5: *The online purchasing behaviour of people during the pandemic was not expected.*

Researchers have discovered whether changes observed during the pandemic would continue in post-pandemic situations. Researchers like Duygun (2020) and Reeves et al. (2020) contemplate that social crises like pandemics might have long-lasting effects on consumers and later might stick to their newly acquired habits in post-crisis situations, too. Sheth (2020), however, disagrees with the notion and asserts that given-up necessities would return to the previous level once the pandemic is over. Wiederhold (2020), however, claims that the convenience offered by new-age technology during the crisis is hard to replace after the crisis, too. Hence, consumers might also hold on to their habits in post-crisis situations. Xu et al. (2020), while citing the example of online shipping, contend that consumers have become accustomed to the variety and ease offered by online platforms and continue to use them after the pandemic, too. However, Deng et al. (2020). They proposed that consumers modify their consumption patterns to gratify their sensation-seeking needs in post-pandemic situations. Erdoğan (2020) also believed that consumers would make purchase decisions based on relevant economic and market factors rather than relying upon pandemic habits.

The literature review revealed that the COVID-19 pandemic had affected consumer behaviour, wherein people have resorted to panic buying and stockpiling items. It was also observed through the available literature that media plays a vital role in crises like pandemics, wherein it escalates the fear and stress amongst people. Consumers also resorted to online platforms to buy and purchase products in bulk. However, certain discrepancies were also discovered during the literature review. The first deals with the culture. This is evident enough that culture plays a vital role in purchasing, and Western culture differs from Eastern countries. There is no evidence that culture ceased to play a role in pandemic situations; while discussing the findings related to COVID-19, most studies have focused on Asian countries. There are very few studies that take into consideration the UK culture. It is essential to mention that no such study has been conducted in the area, i.e., Gibraltar. COVID-19 is much more than a simple health crisis and needs to be studied in a specific context. So, this study would fill this critical gap, wherein this study is amongst the pioneers in studying the impact of the COVID-19 pandemic on consumer behaviour in Gibraltar. The second discrepancy was observed in the role of media during a pandemic. However, it was mentioned that media provokes panic buying during crises; however, due to the proliferation of media into myriad channels, it appears to be an oversimplification of a complex concept. Hence, this study aims to see the role of individual media channels by discovering the most used media channels during the pandemic. Moreover, the study would also determine whether anxiety and stress caused by media during the pandemic affect purchase decisions or not. Similarly, the stockpiling issue has been discussed in the literature, but inadequate information is available regarding the most hoarded items during the pandemic. Many studies have contradictory conclusions regarding the future of online buying in the post-pandemic era. Hence, a concrete opinion cannot be formed regarding the online purchase trends in the post-pandemic situation. This study also fills this gap by assessing whether people in Gibraltar would continue online purchasing habits after the pandemic.

3 Methodology

The study aims to fulfil the following objectives:

- To study the change in consumer purchase behaviour in Gibraltar due to COVID-19.

- To analyse if anxiety and stress affect purchase behaviour during COVID-19.
- To evaluate the use and impact of media on consumers' purchase behaviour in Gibraltar.
- To comprehend the online purchasing behaviour of people during a pandemic.

The study aimed to assess the change in consumer behaviour in Gibraltar due to COVID-19 by analysing the impact of various information sources, fear and anxiety on purchase, the role of media in worsening the pandemic-related fears, stockpiling of items and online purchase behaviour during the pandemic from Maslow's Need Hierarchy theory and consumer neuroeconomic analysis. Saunders, Lewis and Thornhill (2009) contemplate that researchers have dissimilar suppositions about the nature of research and knowledge creation process. These diverse opinions result in different strategies and methodologies adopted by various researchers. Saunders et al. (2009) reflect four eminent philosophies most researchers consider: positivists, interpretivists, pragmatists and realistic. The present study adopted the positivist philosophy. Research is conducted objectively by emphasising an empirical investigation under positivist philosophy (Galliers, 1992). Positivism philosophy relies upon observations to gain knowledge about the subject area, wherein the researcher generally adheres to conduct surveys using structured questionnaires (Žukauskas et al., 2018; Saunders et al., 2019). Hence, following the basics of positivist philosophy, researchers collected the data from the consumers in Gibraltar.

Researchers resort to two research approaches, namely inductive and deductive research around the globe (Saunders et al., 2009). Research philosophy serves as a guiding path for the research approach wherein positivist studies use a deductive approach, and interpretive studies generally employ an inductive approach. In the deductive domain, the researcher moves from the general to the specific domain while testing the various hypotheses/assumptions (Kuczynski & Daly, 2003). The inductive approach, on the other hand, primarily assesses the accessible research and identifies the fundamental patterns and theoretical underpinnings (Ercikan & Roth, 2006). This study adopted the deductive approach wherein researchers tested the various hypotheses related to purchases, the role of media, stress and anxiety and online shopping during COVID-19.

Qualitative and quantitative are the two chief research methods used by the researchers (Saunders et al., 2009). Quantitative methods are generally applied with a deductive research approach wherein data is collected from a sample representing the entire population about a clearly defined research problem. In contrast, qualitative methods are used by the researchers, employing the interpretivist philosophy and inductive approaches. Typically, data is collected from a large representative sample using survey methodology employing structured questionnaires in quantitative research methods. In contrast, qualitative data is collected from a small sample using in-depth interviews, focus group discussions and projective techniques (Harwell, 2011). Collis and Hussey (2013) assert that quantitative methods also allow forecasting of numerous variables. Hence, the present study also undertook the quantitative methodology wherein clear objectives were formulated, and data was collected from a sample comprising Gibraltar consumers.

A range of strategic alternatives exist, such as experiments, surveys, case studies, etc., to fulfil the research objectives (Robson, 1993). This study used the survey strategy, the most widely used strategy in quantitative studies, and the ability of the former to test the hypotheses (Saunders et al., 2009). The study of available literature helped the researcher identify the study's main aspects, namely the impact on consumer behaviour in a new context, i.e., Gibraltar, the role of media and online purchases during COVID-19, requiring further investigation to fill the gaps. A structured questionnaire was prepared after taking substantial cues from the literature. A questionnaire with eight questions measured on a nominal scale with dichotomous or multiple-choice questions was prepared. A close-ended questionnaire was prepared to offer meaningful results and straightforward interpretation (Hyman & Sierra, 2016). The questions in the questionnaire were elementary and straightforward. Table 1 shows the questions used in the study, its measurement scale and the test used for its analysis. Although the binomial test is mainly recommended for small samples, it is useful when there are nominal variables with two categories, as in the study case (Abdi, 2007). In the case of variables with more than three categories, the chi-square test was used. Primary data from the respondents was collected using the study tool, i.e., a questionnaire through a Facebook page called "Speak freely". This page was selected because thousands of people live in Gibraltar. Facebook was chosen because it has been acknowledged as a powerful research tool for consumers in social sciences, marketing and business (Kosinski et al., 2015). Murdoch et al. (2014) also support the usage of Facebook as a data collection platform by asserting that the platform provides the required anonymity and puts respondents at ease while participating in a survey. Consent was obtained from the participants for participation in the study. Pilot questionnaire testing is considered vital as it is assumed to improve the quality of the research (Malmqvist et al., 2019). Hence, pilot testing of the questionnaire

was done, and the questionnaire was evaluated for clarity and relevance based on 12 responses. Minimal changes were made to the questionnaire to improve it further. A modified questionnaire was administered to the respondents online, and data was collected from 272 respondents in Gibraltar. Out of these, 46 responses were discarded on account of incompleteness. Hence, 226 responses were deemed appropriate for the study for further analysis. According to Cohen (1992), the minimum sample size necessary for chi-square analysis, which is the most complex statistical method used in this research, was 87; this sample size is considered when the statistical power is 0.8, there is a significance level of 0.05 and a medium effect size that is the average in different fields of study. When there are two groups, it is enough for each group to have at least 30 cases to be representative if comparisons between groups need to be made, for example, with more robust analyses such as structural equation modelling (Mathews, 2017; Hair et al., 2018; Dewi et al., 2020). Since no comparisons were made between the gender groups in the research and at least the “males” group with the lowest number of cases (69) exceeds 30 data. So, each group was considered representative of the research.

Table 1: Measures

Question	Measurement Scale	Statistical Test applied
Impact of COVID-19 pandemic on the purchasing behaviour	Nominal	One sample binomial
Impact of Anxiety and Stress on Purchase	Nominal	One sample binomial
Stockpiling of Items During Pandemic	Nominal	One sample binomial
Media Worsening the Fears Related to COVID-19	Nominal	One sample binomial
Online Purchase Behaviour during COVID-19	Nominal	Chi-square
COVID-19 is affecting the choice of items in online shopping	Nominal	One sample binomial
Same online purchase habits after the pandemic	Nominal	One sample binomial

Probability and non-probability sampling are the most common techniques researchers use (Saunders et al., 2009). Probability sampling gives equal or known chances to all the elements of the population. In contrast, the researcher chooses the sample based on his/her convenience and judgment in non-probability sampling. Non-probability sampling is assumed to be a fast, easy and cost-effective data collection technique; hence, non-probability sampling using judgment and convenience techniques was applied to select the sample from the study from Gibraltar.

Data was analysed using SPSS version 23.0, which applied descriptive and inferential statistics. Data was represented with the help of pie charts and tables. The statistical significance of the results obtained was checked with the help of two popular nonparametric tests, namely the Chi-square and one sample binomial test.

4 Data Analysis

Data was collected from male and female respondents from different age groups and income strata. The sampling profile details are represented in Table 2.

Table 2: Sampling Profile

Gender		
Categories	Frequency	Percentage
Male	69	30
Female	155	69
Prefer Not to Say	2	1
Total	226	100
Personal Income		
Categories	Frequency	Percentage
£1-£9,999 /Yearly	34	15
£10,000-£24,999/ Yearly	52	23
£25,000-£49,999 / Yearly	72	32
£50,000-£74,999 / Yearly	21	9
£75,000-£99,999 / Yearly	14	6
£100,000-£149,999/ Yearly	6	3
£150000 & above/ Yearly	2	1
Prefer Not to Say	25	11
Total	226	100
Age		
Categories	Frequency	Percentage
18-24 Years	39	17
25-34 Years	37	16
35-44 Years	40	18

45-54 Years	58	26
55-64 Years	36	16
65-74 Years	14	6
75 Years & Above	2	1
Total	226	100

This can be seen from the table that female respondents constituted 69% of the sample, whereas male respondents accounted for 30% of the sample. 1% of respondents did not prefer to say about their gender. Respondents lying in the £25,000-£49,999 income category made up 32% of the sample, followed by the £10,000-£24,999 income category, wherein 23% of respondents belonged to the latter. Respondents in the £150000 and above income category only represented 1% of the sample. 11% of respondents did not prefer to reveal their income. 26% of respondents belonged to the 45-54 age group, followed by 18% from the 35-44 age group. 17% of the sample comprised respondents from the 18-24 age group. The 65-74 age group represented only 6% of the sample, whereas only 1% of respondents in the study were 75 years and above.

4.1 Impact of COVID-19 Pandemic on Consumer Behaviour

The study intended to see whether the COVID-19 pandemic affected purchase behaviour. Respondents were enquired about the impact of COVID-19 on their purchase decisions. The literature revealed that people feel psychological distress, such as anxiety and stress, in crises, which affects their purchase decisions. Stockpiling is another typical behavioural response observed during a crisis. This study aimed to assess all these behavioural parameters amongst the consumers in Gibraltar.

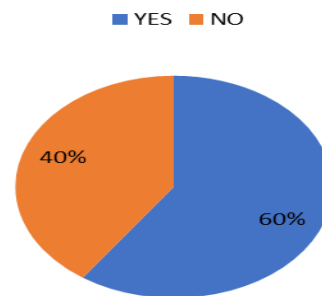


Figure 1: The impact of COVID-19 on purchase behaviour in Gibraltar.

This can be seen from Figure 1, where 60 % of people accepted that the pandemic affected their purchasing behaviour. 40%, however, denied having such influence on the purchase behaviour. The statistical significance of the results was checked with the help of one sample binomial test at a 5% significance level. It was hypothesised that:

Ha1: *There is a change in the purchasing behaviour of consumers in Gibraltar due to the COVID-19 pandemic.*

The test was associated with a significance value of .004, less than the value of .05. Hence, the results were considered significant, and Ha1 was accepted. So, it was concluded that COVID-19 modified consumers' purchase behaviour in Gibraltar.

4.2 Stockpiling during COVID-19

Stockpiling of items was observed during the pandemic. Researchers were inclined to see whether such behaviour was observed in the study area. The results of the same are displayed in Figure 2.

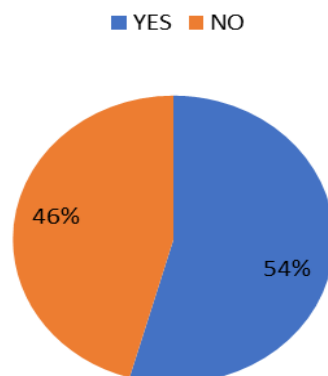


Figure 2: Stockpiling of Items during Pandemic

This can be seen from Figure 2, which shows that 54 % of people accepted stockpiling products during the pandemic, whereas 46% of people denied stockpiling. The statistical significance of the results was checked with the help of one sample binomial test at a 5% significance level. It was hypothesised that:

Ha2: People stockpiled items during the COVID-19 pandemic.

The test was associated with a significance value of .206, more than the value of .05. Hence, the results were considered insignificant, and Ha2 was rejected. So, it could not be concluded that people stockpiled the items during COVID-19 in the study area.

4.3 Types of Items Stockpiled

It was also intended to see which items people stockpiled during the pandemic. Figure 3 gives the details of the products stockpiled by people during COVID-19.

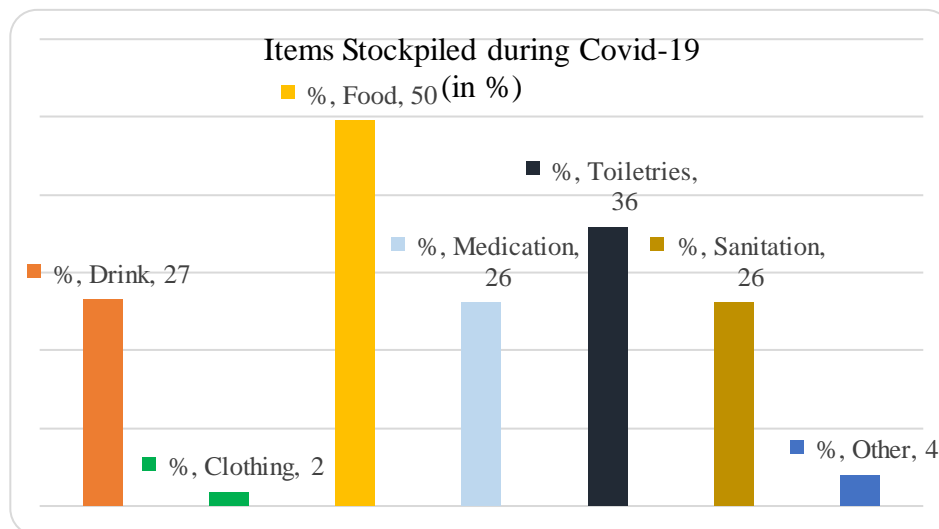


Figure 3: Types of Items Stockpiled

This can be seen from Figure 3 that food was stockpiled the most by people, wherein 50% accepted stocking food items during COVID-19, followed by toiletries (36%) and drinks (27%). 26% of people stockpiled medicine and sanitary items, and 2 % accepted stockpiling clothing. However, inconclusive results obtained for the stockpiling of items make these statistics less relevant.

4.4 Impact of Anxiety and Stress on Purchase during COVID-19

The COVID-19 pandemic has left people anxious and stressed. The researchers thought that anxiety and stress caused by COVID-19 might have also impacted the purchase behaviour. Data was collected regarding the same. Figure 4 shows the results of the same:

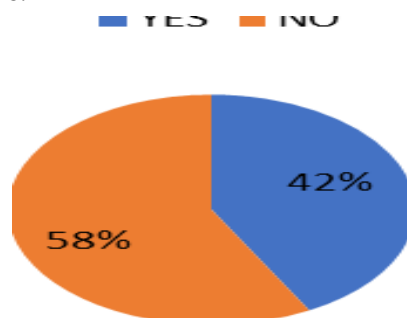


Figure 4: Impact of Anxiety and Stress on Purchase during COVID-19

This can be seen from Figure 4 that 42% of people accepted the claim that anxiety and stress due to COVID-19 affected their purchase behaviour. However, 58% did not feel that stress and anxiety affected their purchase behaviour. The results' significance was checked with the help of one sample binomial test at a 5% significance level. It was hypothesised that:

Ha3: Anxiety and stress affected the purchase behaviour during the COVID-19 pandemic.

The statement was found significant with .020 sig. Value. This led to the acceptance of Ha3, and it was concluded that anxiety and stress due to COVID-19 affected the purchase behaviour.

4.5 Use and Impact of Media on Consumer Behaviour

The impact of media on consumer behaviour was evaluated, wherein researchers intended to know which information sources exerted the maximum influence on purchase behaviour. The literature revealed that the media escalates fears during pandemic-like situations. So, it was deliberated whether the media increased the fears related to the pandemic in Gibraltar, too. Figure 5 details the information sources used by people during COVID-19 that influenced purchase behaviour.

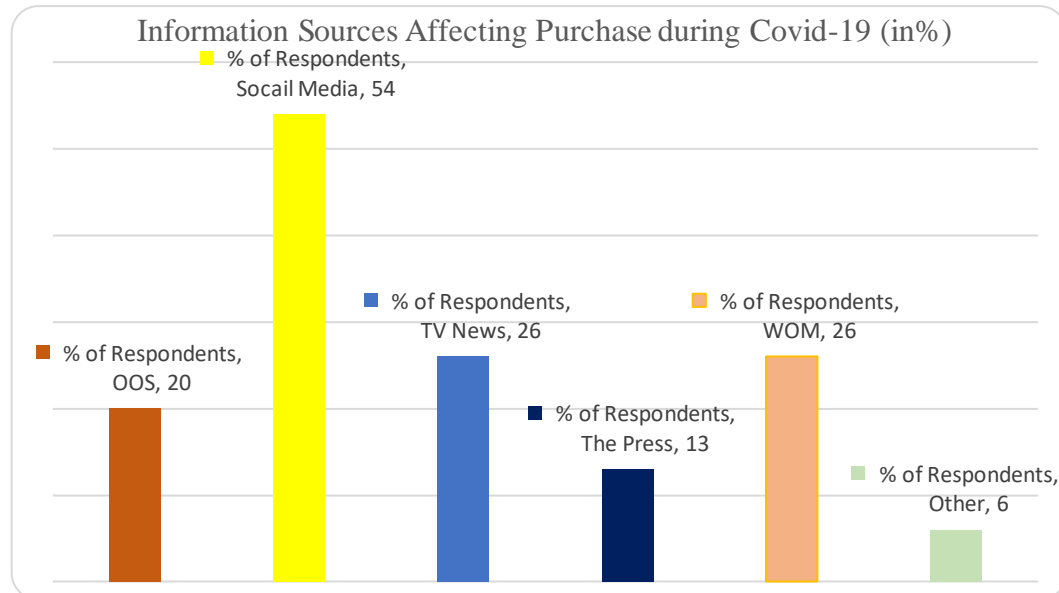


Figure 5: Information Sources Affecting Purchase during COVID-19

This can be seen from Figure 5 that social media exerted a more significant influence on purchase behaviour, wherein 54% of people acknowledged the former having influenced the purchase behaviour, followed by TV news and word of mouth (WOM), i.e., 26%. Other online sources (OOS) affected the purchase decisions of 20% of people. The press influenced the purchase behaviour of 13% of people, whereas other channels influenced 6% of people's purchases. The results indicate that social media was a significant information source during the pandemic and affected people's purchase behaviour.

4.6 Media and Fears Related to COVID-19

Media plays a vital role in everybody's life today, where people get different types of information. COVID-19 pandemic was no different. However, such information from various media outlets might also increase people's fears. This study aims to see whether media worsens the fears related to COVID-19 in Gibraltar. Figure 6 shows the results:

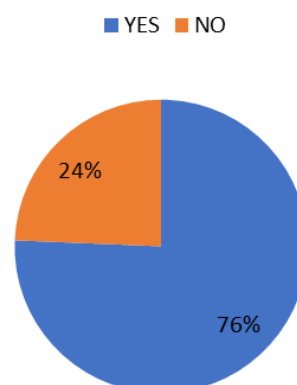


Figure 6: Media Worsening the Fears Related to COVID-19

This can be seen from Figure 6, where 76% of people acknowledged that media worsened the fears related to the pandemic, whereas 24% denied the claim. The results' significance was checked with the help of one sample binomial test at a 5% significance level. It was hypothesised that:

Ha4: Media worsened the fears related to the COVID-19 pandemic.

The statement was found to be significant at .000 sig. Value. This led to the acceptance of Ha4 and the conclusion that the media worsened the fears related to the COVID-19 pandemic.

4.7 Online Purchasing Behaviour of People During Pandemic

The literature revealed that people resorted to online buying during the pandemic due to restricted outdoor movements. Moreover, consumers prioritise purchasing items online and buying more essential items in crisis. Purchase habits so acquired might also continue in the post-pandemic stage. This study tried all these aspects of online purchase behaviour amongst customers in Gibraltar.

Researchers tried to determine whether people regularly purchased online during COVID-19 or if their activity was unusual in Gibraltar. The results of the same are displayed in Figure 7.

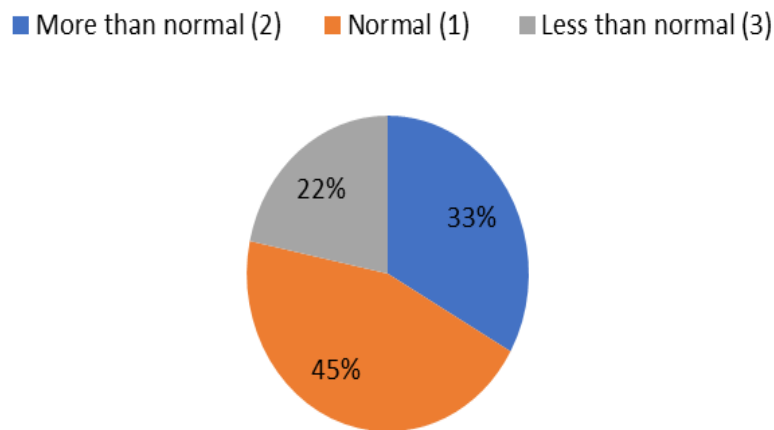


Figure 7: Online Purchase Behaviour during COVID-19

This can be seen from Figure 7 that 55% said that their online purchasing behaviour was unusual, i.e. either more than or less than usual, whereas 45% people found their online purchase behaviour normal. The statistical significance of the results was checked with the help of a chi-square test at a 5% significance level. It was hypothesised that:

Ha5: *The online purchasing behaviour of people during the pandemic was not expected.*

The results of statistical testing have been displayed in Table 3.

Table 3: Hypothesis Test Summary-I for Online Purchase Behaviour

Online Purchase Behaviour	Observed Number	Expected Number	Chi-Square Test Statistics with Sig. Value
Normal	102	75.3	18.646, .000
More than Normal	45	75.3	
Less than Normal	49	75.3	
Total	226		

The test was associated with a significance value of .000, less than the value of .05. Hence, the results were considered significant, and Ha5 was accepted. So, it was concluded that people's online purchase behaviour was not expected during the pandemic, and most people resorted to unusual online behaviour.

The enquiry was also conducted to know whether the COVID-19 pandemic influenced your choice of items in online shopping. Also, it was intended to know whether online purchase habits would remain the same in post-pandemic situations. Table 4 displays the results.

Table 4: Hypothesis Test Summary-II for Online Purchase Behaviour

Statements	Response	Frequency (%)	One Sample Binomial Test with Sig.
Covid-19 is affecting the choice of items in online shopping	Yes	123 (54%)	.206
	No	103 (46%)	
Same online purchase habits after the pandemic	Yes	88 (39%)	.001
	No	138 (61%)	

This can be seen from Table 4, where 54% of people acknowledged that COVID-19 affected the choice of items in online shopping, whereas 46% denied the claim. 61% claimed they would not engage in the same online

purchase habits after the pandemic, whereas 39% intended to continue their online purchase habits after the pandemic. The results' significance was checked with the help of one sample binomial test at a 5% significance level. This can be seen from Table 4, where insignificant results (sig. value .206) were obtained for the choice of items in online shopping, concluding that COVID-19 did not affect the choice of items. This can also be seen from Table 4, which shows that significant results (.001 sig. value) were obtained for the same online purchase habits after the pandemic, suggesting that people are not likely to continue their online purchase habits.

5 Discussion

Results of the study revealed that COVID-19 has affected consumer behaviour in Gibraltar, too, wherein 60% of customers in Gibraltar accepted the impact of a pandemic on their purchase decisions. The results are not surprising and support several previous research studies, such as those by Barnes (2020), Taylor (2020), Canfranc (2020), Loxton et al. (2020), etc. According to the study results and Maslow's Need Hierarchy theory, it is possible to affirm that in a situation of uncertainty and risk such as the one generated by COVID-19, people react with a change in purchasing behaviour because they need to cover their basic needs.

42% of consumers in Gibraltar accepted the claim that anxiety and stress due to COVID-19 affected their purchase behaviour. The findings were supported by previous studies such as Chauhan and Shah (2020), Ozdin and Ozdin (2020), Wang et al. (2020) and Pieh et al. (2020), wherein researchers found a similar impact across different countries such as India, Turkey, Austria, and France. The results allow us to infer that stress and anxiety affect purchasing behaviour. As postulated by neuroeconomic analysis, when there are unpredictable circumstances, such as the case of the pandemic, the consumer will look for ways to reduce stress and anxiety, and one way to do it is by buying. It can be helpful for marketers because, in other situations, uncertainty, stress, and anxiety can lead to purchases as a way to reduce them.

However, conclusive results could not be obtained for stockpiling of the products for the consumers in Gibraltar. These findings contrast with the previous studies by Chauhan and Shah (2020), Long and Khoi (2020) and Wang et al. (2020c), wherein customers stockpiled the items due to increased risk perception. However, contradictory results can be attributed to the rational behaviour of consumers in Gibraltar, wherein they displayed normal behaviour and chose not to stock the items in anticipation unnecessarily (Scipioni, 2020). Another explanation deals with the timing of this study. Generally, stockpiling is the initial response of the people in crisis. However, this study was conducted in 2021, and a significant time gap exists between the initial outbreak and current circumstances. Today, almost everyone in Gibraltar is vaccinated and does not even wear masks. Hence, their fear of the pandemic has been significantly reduced, as have their stockpiling tendencies.

A study conducted by Di Crosta et al. (2021) offers an exciting explanation regarding the impact of anxiety and stress on purchasing items. Although the present study did not classify between the essential and non-essential items, a study conducted by Di Crosta et al. (2021) adopted such a classification. The authors divided the items purchased during the pandemic into essential and non-essential items. Authors claimed that anxiety and stress caused by media during COVID-19 affected the purchase of necessary items, whereas depression was the determinant of the purchase of non-essential items. The study further posited that consumer-oriented factors like personality, self-justification, and economic stability also determined the purchase of items during a crisis. The study not only justified the results but also highlighted a significant gap in the study.

Media also played an essential role for the consumers in Gibraltar, wherein most customers used social media, followed by TV and Word of Mouth. The results are in corroborate the previous studies conducted by Wong et al. (2020), Banerjee (2020) and Islam et al. (2020), wherein authors contemplate that regular updating of information over social media platforms continuously reminded people of the precautions, measures, and restrictions and hence its usage increased during a pandemic. Another study conducted by Abbas et al. (2021) states that as social media offered the global statistics of the pandemic, it satisfied the individuals' informational needs and helped them evaluate the risk by minimising the informational uncertainty. The results also indicated that Gibraltar customers relied on word-of-mouth communication during the pandemic. This can be understood by looking at the culture of the country. Gibraltar is a relatively small community of about 33000 people believing in unity. The country exhibits a robust interpersonal communication system primarily owing to its small population, wherein people generally know one another, and hence, sharing information through word of mouth has become standard (Fotheringham, 2021).

Media in Gibraltar escalated the fears related to the pandemic, wherein 76% of customers accepted media playing a significant role in increasing their fears regarding the pandemic. The results substantiated the findings of previous studies conducted by Loxton et al. (2020), Garfin et al. (2020) and Peretti-Watel et al. (2020), wherein

researchers accredited media for doing more than necessary coverage of the pandemic, which resulted in emotional distress of people during the pandemic. Leger et al. (2020), while discussing the role of media in worsening the fear related to the pandemic, state that media, through dramatic coverage of the disease showing frightening images and videos, aroused distress amongst the viewers along with other physiological symptoms such as anxiety, stress, and sleep disorders.

Regarding online purchases during COVID-19, it was found that 55% of customers in Gibraltar assessed their online purchasing behaviour as unusual, whereas 45% of customers found their online purchase behaviour normal during COVID-19. The findings are in tandem with the findings of previous researchers like Sheth (2020) and Wang et al. (2020b), wherein researchers reported unusual online consumer behaviour during a pandemic. The results are also in consonance with the findings of research conducted by Kadence International, wherein it was found that in categories like apparel and digital services, the online behaviour of consumers across the globe was not expected (Steggals, 2021). However, according to Sabanoglu's previous findings (2020), COVID-19 did not affect the choice of products bought online in Gibraltar. Results also revealed that customers in Gibraltar would not continue their online purchase habits after the pandemic, which is also against the findings of Wang et al.'s (2020b). The findings do not gel well with the findings of another study conducted by Kadence International, which found that in the post-pandemic era, people are likely to continue buying healthy alternatives, supporting local products, and enjoying online streaming services (Steggals, 2021). The study also explains such behaviour wherein customers deny continuing their behaviours acquired during the crisis by stating that during crisis times, especially novel ones like COVID-19, customers cannot judge the discrepancy between actual and desired behaviour. Hence, they cannot give an accurate answer to their future intentions. However, the findings of the current study can be attributed to the strong sense of escapism that people are feeling after the pandemic, wherein they wish to visit places, enjoy shopping and outings with family and friends as they did in pre-pandemic times (Fotheringham, 2021).

6 Conclusion

The COVID-19 pandemic affected individuals, businesses and economies across the globe, and Gibraltar is no exception. The study aimed to assess the change in consumer behaviour in Gibraltar due to COVID-19 from two theoretical perspectives: neuroeconomic analysis and Maslow's Need Hierarchy theory. The study also intended to understand the media's role in consumer purchase behaviour in Gibraltar. Consumers' online purchase behaviour was also evaluated during the pandemic. Quantitative research was conducted to achieve the study objective, wherein data from 226 customers from Gibraltar was analysed. The study concluded that the pandemic affected consumers in Gibraltar, and their behaviour was significantly affected. This reaffirms what Maslow postulated: the pandemic caused consumers to be interested in covering their basic needs, and consequently, they bought. They displayed anxiety and stress due to COVID-19, which eventually affected their purchase decisions too, as indicated by the neuroeconomic analysis; in situations of uncertainty, the consumers will face their stress and anxiety in some way, and in this case, it was proven that it was through a purchase behaviour. Therefore, it can be argued that it is possible that the population of Gibraltar, in situations of uncertainty similar to the one caused by COVID-19, will have a purchasing behaviour that will satisfy their basic needs, which at the same time is a mechanism to reduce stress and anxiety in the community population. However, this does not translate into a causal relationship in which COVID-19 and the anxiety and stress it generates cause purchasing behaviour. It is necessary to carry out other types of studies with quantitative variables and other statistical analysis techniques like regression analysis or structural equations modelling that make it possible to infer causality. This study can be taken as a first stage that justifies a broader analysis of purchasing behaviour in situations of uncertainty.

However, customers in Gibraltar did not display the stockpiling tendencies. There might be multiple reasons that can be attributed to it, such as a 100% vaccination rate in the country, very few active COVID cases, rational consumer behaviour and reduced risk perception of the consumers. Media played an important role and affected the consumer behaviour of customers in Gibraltar. Social media, TV, and word of mouth were the most used communication channels for consumers in Gibraltar. Media worsened the fears related to COVID-19 amongst the consumers in Gibraltar. Consumers resorted to online shopping during the pandemic and experienced an unusual online shopping experience. However, the pandemic did not affect their choice of items bought online. Most customers did not intend to carry on their online behaviour acquired during the pandemic in the post-pandemic situations. The majority of the findings of this study align well with the previous studies, except for a few, especially those dealing with stockpiling and online behaviour. Multiple factors related to

population size, vaccination rates and culture of the country offer a suitable explanation for the study's unique findings. The study broadens consumer behaviour understanding by analysing the impact of COVID-19 in a small country like Gibraltar. The results would help future researchers in the area wherein this study might serve as a case study for other researchers.

6.1 Limitation and future research

The study has limitations regarding the methods, sampling technique, measurement scale and sample size. The study adopted a quantitative methodology that concluded based on the self-reported behaviour of the respondents rather than identifying deeply held beliefs, insights, and underlying principles. Nielsen (2004) claims that quantitative data is not good at uncovering the feelings and emotions of the respondents. Hence, other researchers in the area might adopt the qualitative methodology. The current study used non-probability sampling for the apparent benefits of time, effort, and monetary resources. However, probability sampling excels in better targeting the population and minimising research errors. Future researchers might employ probability sampling for better representation of the population. This study made use of a nominal scale to get the required information. Lower-level scales are good at eliciting responses for being simple and easy to answer; however, they do not offer adequate statistically relevant information such as mean, standard deviation, variance, etc. Other researchers might work on this weakness, too, and higher-order scales might be used. This study collected responses from 226 respondents. One of the study's limitations was the sample size, so it is recommended that future studies consider a larger sample size to reduce its representativeness bias. This study assessed the impact of COVID-19 on consumer behaviour, wherein customers accepted that the pandemic affected their behaviour. However, this study did not study the factors that led to such behaviour. Other researchers should research various factors leading towards changes in consumer behaviour during a pandemic. Moreover, consumer behaviour is extensive. Other researchers might consider evaluating the impact on its relevant individual constituents to conduct a more specific study. Purchases during a pandemic can also result from various factors related to consumers, such as personality, attitude, economic stability, beliefs, etc. However, this study considers the media's role in determining product purchases during the pandemic without controlling other factors. In order to truly determine the causal relationship, it is necessary to control the exogenous variables. Other researchers might conduct controlled experiments to understand the genuine causal relationship between the variables. Moreover, the study did not differentiate between the necessity and non-necessity items; that could have been done to know the difference between the two, as spending extra on necessities in a crisis like this is natural. Other researchers might also consider this difference as well.

6.2 Implication and industry recommendation

The study results revealed that consumers change their behaviour during crises to deal with them more efficiently. These findings imply that consumers assess their needs by categorising them into essentials and non-essentials and reprioritising them. Their expenditure towards them also gets proportioned accordingly. Marketers must adopt an agile response strategy to accelerate their moves to digital platforms with clear performance indicators and a renewed marketing plan incorporating the changed demand. Marketers must also reassess their product portfolio and focus on the essentials to trade effectively during crises.

It was revealed in the study that consumers confront psychological distress, and anxiety and stress affect their purchase decisions, too. It can be understood that in a crisis, it is not uncommon to feel anxiety and stress, as it appears to be the very natural response to the crisis. However, marketers should appreciate that these are emotional responses and affect the business. Hence, it is necessary to have crisis management plans to deal with a crisis like a pandemic, wherein the company needs to keep its supply chain safe to ensure a consistent supply during the pandemic. It is equally essential to be relevant to the customers through effective customer relationship strategy and engagement activities. Mental health becomes a priority in crises involving medical emergencies like COVID-19. Brands should support customers' mental health by providing soothing, relevant, and calming information. The mental wellness support brands provide will benefit the latter after the crisis as people remember and value the humanitarian approach brands adopt. Brands can also partner with other organisations, such as NGOs, health centres, hospitals, etc., to help spread awareness about the crisis. A crisis like COVID-19 offers an opportunity for brands to know their customers better. Marketers can leverage the technology to connect with their customers and cultivate trust and credibility (Karlitz, 2021). Crisis management plans are needed to deal with a crisis like a pandemic, wherein they do not only need to save their supply chain to ensure consistent supply during the pandemic. Marketers can also strengthen the grassroots network

communities to connect with their customers. This becomes easily feasible in a country like Gibraltar with a small population.

Social media was the most used communication channel, and media worsened the fears related to the Gibraltar pandemic, as per the results of this study. The results imply that although social media is one of the most relevant communication channels of today, it informs people and scares them in crisis. This calls for adopting a responsible approach by media houses and brands using social media channels wherein caution must be exercised while communicating with the target audience. Research conducted by Suraweera and Jayathilakestates (2021) states that social media characteristics such as entertainment, trendiness, interactions, customisation and word of mouth affected the purchase decisions of customers during COVID-19; however, the study revealed that it was anxiety and stress that affected the purchase behaviour. The results imply that marketers probably undermine the capabilities of social media during crisis time. So, marketers are advised to make innovative use of social media to get better results from their marketing efforts.

The findings also revealed that consumers' online behaviour during the pandemic deviates from normal. However, the behaviour change might not continue once the crisis is over. The findings suggest that the transition from physical to online space is fastened during the crisis, and necessity drives this transition during the crisis. However, the situation might perplex marketers and pose a challenge as they cannot be sure of changing behaviour after the crisis. Here, marketers should look for psychological factors underpinning the behaviour rather than focusing upon the external circumstances and factors such as the crisis itself, temporary increase or decrease in sales, etc. This would enable marketers to know the factors leading towards forming habits, and marketers would be better able to predict the behaviour after the crisis. Research suggests that consumers often want to continue with innovative behaviour discovered during crisis times but cannot do so because of complexity or inconvenience. Hence, marketers should know the reasons hindering the adoption of newly acquired behaviour and devise measures to reduce the barriers.

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