

The Impact of Psychological Factors on Online Consumer Behavior during Crisis

An empirical study on Millennials in Egypt during Covid-19 Crisis

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Abstract

The Covid-19 pandemic has caused sample changes in many aspects. Among these changes is the psychological factors, particularly stress, depression, anxiety, and fear, that were experienced during the Covid-19 pandemic, which influenced consumer behavior worldwide. This study focuses on Egyptian Millennials and how their online shopping behavior for non-essential has increased as a form of avoidance behavior during crisis time.

Research Objectives:

The purpose of this paper is to examine how the pandemic affected the buying habits of Egyptian Millennials. It looks into how psychological aspects affect customer behavior when they shop online, especially with regard to the increase in non-essential purchases.

Methodology: A mixed-methods approach was employed, combining quantitative data from a survey with 408 valid responses and qualitative insights from in-depth interviews with managers and salespeople at H&M and Zara stores in two of the biggest cities in Egypt, Cairo and Alexandria.

Results: The findings of the study revealed that there is a significant correlation between Egyptian Millennials' increased online shopping and psychological factors including fear, depression, and anxiety. Stress, however, had no significant effect on Millennials' online purchasing decisions. The qualitative results highlight the value of preventive planning and customer-focused tactics in addressing the pandemic's potential and challenges.

Conclusion: the COVID-19 pandemic significantly influenced the online buying behaviors of Egyptian Millennials due to psychological issues. To successfully interact with and retain consumers in the ever-evolving e-commerce world, businesses must understand and take into account these psychological factors. Gaining insight into these evolving facets can result in enhanced consumer experiences and more successful marketing strategies.

Keywords: COVID-19, online consumer behavior, psychological factors, Millennials, Egypt, non-necessity purchases.

الملخص:

لقد تسبب وباء كوفيد-١٩ في عدد من المشكلات النفسية، بما في ذلك التوتر واليأس والقلق والرعب، مما أدى إلى تحول في سلوك المستهلك على مستوى العالم. هذا التحول ملحوظ بشكل خاص بين جيل الألفية المصري، الذين يستخدمون التسوق عبر الإنترنت للسلع غير الأساسية كشكل من أشكال سلوك تجنب المشكلة.

أهداف البحث: تسعى هذه الورقة إلى تحليل كيفية تغير أنماط التسوق لدى جيل الألفية المصري طوال فترة الوباء. وتتناول على وجه الخصوص تأثير الجوانب النفسية على سلوك المستهلك عبر الإنترنت، مع التركيز على ارتفاع عمليات الشراء غير الأساسية عبر الإنترنت. كذلك تدرس موضوعات الدراسة التغيرات في سلوك المستهلك عبر الإنترنت، وتأثير الجوانب النفسية على سلوك الشراء أثناء الوباء وكيف استفادت الشركات من إمكانيات الشراء عبر الإنترنت.

المنهجية: تم استخدام نهج مختلط الأساليب يشتمل على منهجيات نوعية وكمية. تم جمع البيانات الكمية من خلال استطلاع تم توزيعه عبر وسائل التواصل الاجتماعي والبريد المباشر والقنوات الشخصية، مما أسفر عن ٤٠٨ استجابة صالحة. تم جمع رؤى نوعية من خلال مقابلات مع المديرين ومندوبي المبيعات من متاجر H&M و Zara في القاهرة والإسكندرية.

النتائج: وجدت الدراسة أن وباء كوفيد-١٩ تسبب في تحول كبير في سلوك المستهلك، ولا سيما بين جيل الألفية المصري، الذين اعتمدوا بشكل أكبر على الشراء عبر الإنترنت للسلع غير الضرورية. إن الاعتبارات النفسية لها تأثير إيجابي مباشر كبير على سلوكيات التسوق عبر الإنترنت. ومع ذلك، لم يكن للتوتر تأثير كبير على سلوك الشراء عبر الإنترنت لدى جيل الألفية.

الخلاصة: تسلط النتائج الضوء على التأثير الكبير للجوانب النفسية على سلوك الشراء عبر الإنترنت لدى جيل الألفية المصري أثناء وباء كوفيد-١٩. يعد فهم هذه

الديناميكيات أمرًا بالغ الأهمية للشركات التي تتطلع إلى تغيير استراتيجيتها للاستفادة من الفرص المتوسعة بسرعة في قطاع البيع بالتجزئة عبر الإنترنت.

الكلمات الرئيسية: كوفيد-١٩، سلوك المستهلك عبر الإنترنت، العوامل النفسية، جيل الألفية، مصر، المشتريات غير الضرورية.

Introduction

In late 2019, a new strain of coronavirus emerged, named COVID-19. It spreads easily through human contact. on March 11, 2020, the World Health Organization (WHO) declared COVID-18 a pandemic. Governments worldwide imposed varying restrictions to curb its spread (World Health Organization, 2020).

Egypt reported its first COVID-19 case on February 14, 2020. The Egyptian government put several protective measures into action. Measures included a curfew, suspension of transportation, closure of educational facilities, and restrictions on gatherings and prompted a national lockdown from March 24 onwards (IMF, 2021a; Assaad et al., 2022). Crises and pandemics are often associated with several psychological factors. Such factors could mend the human behavior in many aspects. The pandemic and its associated psychological factors catalyzed a shift in consumer behavior towards online platforms. This study aims to explore the impact of the psychological factors on the online shopping habits during the crisis, particularly among Millennials in Egypt. The focus of the

previous studies that addressed this topic was on consumer behavior in general. Millennials shape a great proportion of the demographics of Egypt. This study focuses on the shift in Millennials' shopping behavior towards online shopping, particularly for non-necessities, due to influence of psychological factors associated with COVID-19 pandemic in Egypt, hence, filling a crucial research gap.

Understanding how cultural and environmental factors influence consumer responses to crises is vital. Studying Millennials in Egypt provides insights into these dynamics, benefiting both academics and industry practitioners. As organizations adapt to evolving consumer behavior, insights into the psychological drivers of online purchases become increasingly valuable. This study offers marketers and businesses in Egypt valuable insights into tailoring marketing strategies and enhancing online platforms to meet the evolving needs of their target audience.

Covid-19 Background and Impact

The World Health Organization declared COVID-19 a worldwide pandemic on March 11, 2020, as a result of its capacity to travel quickly and infect, which triggered a global outbreak in early 2020 (McAleer, 2020: 4). As of March 27, there were 465,915 verified COVID-19 cases in 199 distinct nations or territories, and the virus itself was directly responsible for 21,031 fatalities. 4.3 million confirmed cases and more than 79,000 fatalities were reported on May 16. Substantial outbreaks have been recorded in countries other than

China, including the United States, Italy, Iran, Spain, France, and Germany (Laato et al., 2020: 3). The virus was immediately responded to by governments, stock markets, and citizens. Nearly all of the nations affected by the virus, imposed travel restrictions, quarantined citizens, closed public facilities including schools, and prohibited or cancelled large public assemblies, among other measures (Farooq et al., 2020: 2). Because of the severe lockdown regulations, commercial enterprises were closed, production of goods was stopped, and transportation was impeded. However, online shopping was permitted (Bisaria, 2021: 87).

Egypt revealed its first COVID-19 case on February 14, 2020. After that, Egypt intensified its precautionary measures, beginning on March 25 with just a partial lockdown (Tuite et al., 2020: 894). The government implemented additional preventative measures, including the establishment of testing facilities, the imposition of a nighttime curfew, temporary closure of places of worship, temporary suspension of all air travel, and the encouragement of civil servants to telework in non-essential areas (IMF, 2021). However, to encourage consumer spending, the government sponsored a consumer spending program with a budget of more than EGP 10 billion (US \$636 million). With the help of low-interest loans, customers may purchase the reduced customer items that producers are providing under this scheme (Assaad et al., 2022: 15). In addition, the government created a new guarantee fund of EGP 2

billion to support consumer loans and mortgages issued by banks and personal microfinance institutions (IMF, 2021).

To revive the economy, the government gradually eased COVID-19 precautions. A Cabinet announcement on April 30, 2020, signaled preparations to "coexist" with the virus. Retailers and shopping centers extended weekend hours, diners shifted to takeout, and hotels resumed operations at reduced capacity from May 4, 2020. The Egyptian Health Ministry outlined a three-stage control strategy for a gradual return to normalcy. Adjustments included an amended curfew from June 1, 2020, and a phased reopening of the economy from July 2020, with air travel resuming, restaurants operating at reduced capacity, and parkland opening with limited access (IMF, 2021).

With the effect of COVID-19, consumer behavior theory has undergone drastic modifications and new circumstances (Yin, Yu & Xu, 2021: 172). According to Laato and colleagues' research, there is a direct correlation between the need to isolate oneself and the desire to make unique purchases. This finding demonstrated experimentally that the anomalous purchase patterns seen worldwide in March 2020 were related to quarantine precautions (Laato et al., 2020: 7). The COVID-19 pandemic has induced widespread fear and uncertainty globally, leading many individuals to resort to panic buying as a coping mechanism during extended periods of quarantine. Reduced store hours, lockdown restrictions, and experts' advice to limit non-

essential shopping contribute to heightened anxiety among consumers. This increased fear often prompts unnecessary purchases or overbuying. Additionally, mistrust in government crisis management and concerns about store closures have driven some consumers to engage in compulsive buying behaviors (Islam et al., 2021: 2). According to (Cherian, 2020) in the Gulf News, abrupt statements of limitations resulting from COVID-19 sparked panic purchasing, which in turn caused a shortage of goods in the marketplaces. Several necessities ran out of stock. Due to the danger posed by COVID-19 to consumers' perception of safety and the growth of irrational herd mentalities to obtain a single resource at the expense of others, people' higher-than-normal consumption has resulted in catastrophic excessive consumption and resource depletion (Loxton et al., 2020: 2).

Literature Review

Consumer Behavior Research and Metaphors for Consuming

The moment a person comes to this world, s/he becomes a consumer and starts consuming good and services (Kapoor, 2017: 3). The way in which consumers behave affects how businesses are operated. Simply put, consumer behavior refers to the manner in which people make purchases. This refers to what consumers purchase, where they buy it, how much they spend, when they buy it, and why they buy. Consumer behavior affects business because purchasing decisions indicate the kinds of goods and manufacturing procedures that customers want (Buerke et al.,

2017: 960). Consumer behavior is the study of the interactions that take place when goods, services, encounters, and ideas are purchased, used, and then discarded. It is a form of trade that includes both the exchange of goods and the delivery of services. It could involve the exchange of feelings or ideas (Saeed, 2019: 4). Consumer buying behavior pertains to the buying habits of the final consumer. Here, it refers to the selection, acquisition, and utilization of goods and services with the purpose of gratifying consumer needs (Ramya & Ali, 2016: 76).

The Buyer Decision Process

The sequence of events that leads to a consumer decision is intricate. The main factors that influence purchasing decisions are similar across theories and models of consumer behavior, but they vary depending on the urgency and intensity of a customer's requirements and wants for a certain product. However, in addition to numerous considerations of price, quality, and attitudes, perceptions, and self-concepts, products also have a distinct importance in a consumer's purchasing decision-making process, based on their usefulness and urgencies to customers (Panwar et al., 2019: 40). The buyer choice process is depicted in Figure 1 as having five stages: need identification, information search, alternative evaluation, purchase decision, and post-purchase behavior. It is obvious that the purchasing process begins well before the actual purchase and lasts for a very long time after (Kotler & Armstrong, 2012: 152).

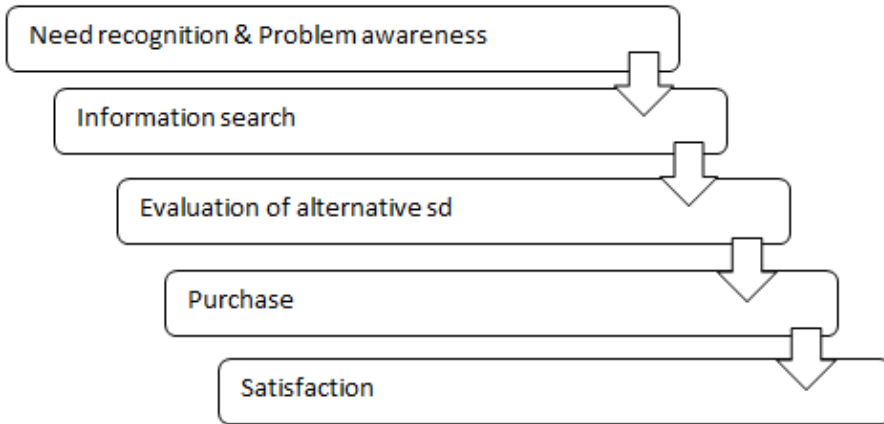


Figure 1: The Five Stage Decision Making Model (Panwar et al., 2019: 42)

Consumers buying behavior involves a variety of phases. These phases include detecting problems, gathering information, reviewing alternatives, making a purchase, and post purchase evaluation. As a result, customers' attitudes towards purchasing vary in accordance with each of these phases of consumer purchasing behavior (Saeed, 2019: 5). In order to select products that offer the greatest benefit to the consumer, the consumer must first identify which products he or she wants to use. The decision to buy an item will be based on the amount of money available to the customer once the items have been picked. The next step in this process is to examine the current commodity prices and decide which product the customer will purchase (Ramya & Ali, 2016:76). According to Kotler and Armstrong (2012: 152), when making a purchase, consumers pass through all five phases of a

purchase. Consumers might skip or reverse some of the stages in more customary purchases. For instance, a woman who is buying a regular brand of toothpaste would skip the evaluation and search for the right product and move directly to the actual purchase phase. Nevertheless, when a consumer faces a new and complicated purchase situation, the model in figure 1 is used as it reflects all the considerations that arise.

Another model that attempts to explain the consumer buying process is the Stimulus-organism-response (SOR). The SOR theory states that there are two main approaches by which individuals respond to their surroundings: approach behaviors, which include all positive behaviors like the desire to experience, stay, partnership, or perform, and averting behaviors, which include the contrary like the willingness not to constructively act. The SOR theory emphasizes the emotional or emotion-evoking aspects of a space that are thought of as aesthetic incitements (Kim et al., 2020: 71). According to the paradigm, environmental cues might take the shape of overt or covert circumstances that could cause people's internal states to motivate particular behaviors. Prior studies suggest that health consciousness may serve as egoistic motivators (Talwar et al., 2021: 3). Moreover, consistent with the Model of Consumer Decision-Making Framework, there are two layers of influences that affect consumers. The psychological factors, such as perception and learning, are included in the first level of effects since they are

close to the individual. Reference groups and family influences are examples of second level effects that have emerged as a result of socialization. All models that have been modified for the tourist industry provide some understanding of the decision-making processes that consumers go through before and after making a purchase. (Panwar et al., 2019: 40).

Palacio-Fierro (2020: 107) argues that consumers have defined a company's success or failure starting from the nineteenth century. He adds that businesses with a long-term relationship with customers will be able to generate more profits. Saeed (2019: 2) complements by stating that conducting research on customer behavior assists organizations in improving their marketing strategies. Furthermore, it helps realizing how people feel about various brands and products. It is therefore not surprising that successful organizations today are committed to providing value to their customers and thus generating higher profits as a consequence of being surrounded by constant change. As such, a business that longs to stay in business should take the time to understand the behavior of its customers (Palacio-Fierro, 2020: 107). In order to meet the needs and satisfy the goals of an individual, consumer behavior entails the understanding of the process of selecting, purchasing, using, and disposing of a particular product or service (Solomon et al., 2009: 6). Since consumer is the corner stone in the business cycle, it is of a high significance for businesses to understand how consumers behave.

In more specific words, marketers and decision makers need to know how consumers think before and during the purchase process. They also need to understand the factors that have impact on the consumers' decisions and make them prefer one product or service over another.

Factors Influencing Consumer Behavior

The specific factors that influence customer behavior are difficult to pinpoint because they differ for every consumer. Personal, psychological, social, and cultural traits are the four key traits that Kotler and Armstrong (2012: 147) distinguish as having a significant impact on consumers. Individual, psychological, and cultural factors all have an impact on what consumers choose to buy (Saeed, 2019: 4). A number of these factors can be categorized according to their influence on the individual, such as psychological or internal factors, societal influences, cultural influences, economic influences, and personal factors (Ramya & Ali, 2016:76). Both internal and external factors are significant factors that affect the decision of a consumer in making a purchase (Palacio-Fierro, 2020: 107; Ramya & Ali, 2016: 77; Qazzafi, 2020: 1205; Saeed, 2019: 4). Here below we develop on each independently.

External influences

According to Valaskova et al. (2015: 175), societal norms and an individual's financial situation have a significant impact on how consumers behave while making purchases. Natural

information processing systems need to interact with the external environment to function. This means that they need to get information from the environment and act appropriately within it (Sweller et al., 2011: 39) The idea that behavioral response is influenced by the emotional experience stimulated by external factors has been supported by previous studies (Islam et al., 2021: 4). As per Lim et al. (2016: 304), external factors like perceived social pressure may actually have an impact on a person's conduct. For instance, marketing initiatives could serve as the starting point for investigating environmental influences on consumers' decision-making (Palacio-Fierro, 2020: 107).

Other factors that impact the consumer's behavior include culture and society. Culture refers to the norms and habits through which the person grows. People develop a variety of attitudes, opinions, wants, and behavioral patterns as a byproduct of socialization within the community and a number of other significant organizations because human behavior is predominantly the result of a learning process (Ramya & Ali, 2016: 78). Human behavior, especially general tendencies of buying and consuming, is significantly influenced by the culture in which a person grows up (Palacio-Fierro, 2020: 108). Culture plays a significant role in forming the consumer decisions because it has such a big impact on how individuals see themselves in the world, where they fit in, and how they make decisions. It might be blatantly clear in some cases how culture

affects consumer behavior. Some purchasing trends are simple to comprehend because of cultural restrictions on the use of goods like alcohol or meat, or because of cultural preferences for particular dress designs. Social variable are specifically the results of individuals and groups influencing one another through socioeconomic class, culture and lifestyle, family, and other social norms. People are social creatures. As a result, others around us have a significant influence on our behavioral patterns, preferences, and disinclinations because they serve as major frames of reference for us. A reference group is a group of individuals with whom a person has an existing connection. A person's opinions, morality, and behavior are significantly influenced by a group of people, either entirely or in part (Ramya & Ali, 2016: 77). These groupings largely consisted of family, friends, and coworkers a few years ago. In past few years, those who have found success on social networks have transitioned to become the new reference groups (Palacio-Fierro, 2020: 109). Similar to culture, the social factor shapes how people see their needs and wants, which has an impact on consumer behavior. People who belong to the same socioeconomic class frequently share attitudes, lifestyle choices, educational institutions, fashion preferences, and retail preferences.

Although external influences cannot directly alter the decision-making process, they are nevertheless important and have an impact on consumer behavior. Consumer behavior cannot be studied in the

frame of external factors only, but rather, internal factors such as psychological and mental factors should be studies as well.

Internal Factors

According to Chukwu et al. (2019: 4), a number of emotional, psychological, and physical aspects affect customers' purchasing decisions. These elements might include the accessibility of substitute products, their costs, and the consumer's income stream. Another aspect of how consumers make purchases is psychological influences. Four significant psychological elements have a significant impact on consumer purchasing behavior. These factors are perception, motivation, learning, beliefs, and attitudes (Jisana, 2014: 36). However, Di Crosta et al. (2021: 2) mentioned fear, anxiety, stress, and depression, among other factors, that have been perceived as influential on consumer behavior, especially during times of crises.

Ramya and Ali (2016) say that a person's motivation is their internal driving force that pushes them to do what they need to. They add that it is one of the internal considerations that affects consumer behavior. A motive is a desire or urge that an individual attempts to satisfy. When a person seeks fulfilment via the purchase of something, this becomes a purchasing incentive (Ramya & Ali, 2016: 77). Such force originates with an unfulfilled desire that drives a person to act. The tension creates momentum that can last until the demand is met or the purpose is

attained. This final tier is determined by each individual's consumption ideals and behaviors (Palacio-Fierro, 2020: 110). Perception may be described as the process by which humans select, arrange, and decode acquired knowledge in attempt to construct a representational image of the external environment (Kotler & Armstrong, 2012: 148). When individuals feel motivated, they become ready to act. From this point on, the individuals will consider their perspectives, which are founded on data gathered from their surroundings and assimilated by one or several of their five human senses (Palacio-Fierro, 2020: 110). Additionally, a person learns when he or she acts. Individuals learn as a result of their experiences, which results in changes in their behavior. Human behavior is said to be largely learned according to learning theorists. As a result of the interaction between the stimuli, cues, responses, and reinforcement, learning, it is established (Kotler & Armstrong, 2012: 149). Palacios-Fierro (2020: 111) concludes that this process is critical for consumer behavior in the future with regard to different brands on the market.

Impact of Psychological Factors on Consumer Behavior

According to appraisal theorists, an individual's perception or assessment of the surroundings induces an affective reaction. These theorists believe that people evaluate their circumstances along multiple appraisal dimensions (i.e., objective standards, individual autonomy, conviction, normative/moral appropriateness, and significance), which interact to elicit a

distinct emotional response. Previous research on the risk as-feelings hypothesis and the "affect heuristic" show that dangerous prospects inspire emotional reactions, hence altering individuals' judgements and decisions, which is consistent with appraisal theory (Kim et al., 2022: 561). Some factors that exist in abnormal conditions could alter consumer behavior. These factors include fear, stress, anxiety, and depression. The following section addresses these factors and how they might have impact on consumer's decisions.

Fear

Fear is a natural emotional attachment that results from a threat such as COVID-19 pandemic. Fear is described as an uncomfortable feeling triggered by COVID-19's harmful influence on the person and on the community (Kim et al., 2022: 560). Coping behavior occurs when a particular consumer cannot control a circumstance such as a crisis, a dread of the unpredictable emerges, and the consumer attempts to do something different to seize control (Yuen et al., 2020: 8). Throughout periods of uncertainty, consumer behavior theories show how people try to take command via purchase experience and panic buying (Loxton et al., 2020: 3). Individuals' panic buying behavior is caused by fear, among several other factors such as perception of severity, social factors, anxiety about the unknown, coping instinctual behavior, social learning theory, confidence in authority and media, news media content, agent-

based models and stimulus-organism-response systems (Chua et al., 2021: 2). This occurs since consumer lack of knowledge manifests itself in behaviors that are seen, from the consumer perspective, as comforting, safety, or crisis mitigation (Loxton et al., 2020:3).

Stress

Torres and Nowson (2007: 887) define stress as “the generalized, non-specific response of the body to any factor that overwhelms, or threatens to overwhelm, the body’s compensatory abilities to maintain homeostasis”. Physical stressors such as trauma, surgical intervention, extreme heat or cold; synthetic sources of stress such as limited oxygen levels, acid-base lack of balance; physiologic sources of stress such as intense workout, hemorrhagic shock, pain; mental or emotional sources of stress such as anxiety, fear, sorrow; and social stressors can all cause a stress response (personal conflicts, lifestyle changes). Consumers may choose to take no further action when they are under stress. This reaction can be helpful in some circumstances since doing nothing can stop the stressor from doing even more damage, which can reduce and perhaps even completely remove stress (Landau et al. 2011: 192). On the contrary, other research indicates that stress may motivate behavior (Duhachek & Kelting, 2009:479). Consumers occasionally engage in impulsive expenditure, including the use of items like alcohol and drugs, as a result of the stress of daily

living. The upshot is that various viewpoints provide different conclusions about if stress causes people to consume less or more. These conflicting results indicate that the creation of a new perspective on the effects of stress, particularly contends that stress impacts specific actions adversely while favoring others. Stress has the ability to make individuals feel as though they have no command over their surroundings. Because of this, customers may deliberately utilise their financial resources to regain control under trying circumstances. Saving money is one approach to do this. Money management ensures that those resources will be there when required, which gives one a feeling of control. On the other hand, spending money is a different approach to regain control, but in a calculated way (Kim et al., 2022: 561). Stressed-out buyers could be more inclined to spend money on essentials (as opposed to non-necessities), which gives them a sense of control by making things necessary for daily existence easily accessible (Durante & Laran, 2016).

Anxiety

The emotional response known as anxiety is described as undesirable, consciously felt strain and apprehension with accompanying autonomous nervous system activity or stimulation (Sonia, 2005: 212). This suggests that anxiety is a profoundly uneasy mental state that is worried about upcoming challenging circumstances or threats. According to traditional psychology research, anxious persons are more prone to have a

variety of perceptual and evaluative impairments, including incorrectly interpreting risks and threats, raising false alarms, making illogical judgments, and interpreting data in an ad hoc manner. According to academics, individuals who are worried often view their anxiety as a condition that is ongoing and unavoidable. Additionally, individuals frequently think that their capacity for engagement and focus on work is disadvantageous (Dhir et al., 2018: 144). From a physiological perspective, the rise in anxiety level is due to cognitive and memory disturbances, causes people to exhibit anxiety, tension, hesitation, and unsettling emotional fluctuations (Huang, 2022:126). From the consumer behavior facet, Compulsive behaviors are influenced by emotional considerations. Compulsive purchasing is a result of both positive and bad causes. One of the elements that promotes compulsive shopping is anxiety. According to the definition of compulsive consumption is "a behavior in responding to an uncontrollable drive or desire to obtain, use, or engage in a feeling, component, or activity that causes a person to repeatedly engage in a behavior that would negatively affect the individual and/or to everyone else.(Darrat et al., 2016: 103).

Depression

Depression is another common mental health issue that has a negative impact on a person's feelings, thoughts, and behavior. It can lead to feelings of sadness, a loss of interest in once-enjoyed activities, and other physical and emotional issues that can make it

difficult for a person to work properly including both home and work (Lins et al., 2021: 435). The choice of depressive illness as a study topic was motivated by the piece of information that reveals that, by the year 2030, it would surpass both cancer and several contagious diseases in terms of prevalence. Additionally, between 2005 and 2015, there were 18.4% more incidences of persons with depression, and this condition can result in suicide (WHO, 2021). Risk-taking, pursuing excitement, connection with products, inventiveness, and hedonistic consumerism are all linked to depression. Recurrent depression sufferers may typically function most of the time within what society considers to be "normal" bounds. But this group of customers has heightened susceptibility to other individuals and the surroundings, along with regular mood fluctuations (Alcoforado & Melo, 2021: 41). Coping mechanisms are essential during times of crisis, such as the epidemic we are presently experiencing.

All throughout COVID-19 epidemic, issues with stress, anxiety, and depression were observed (Jacob et al., 2020: 4). Due to every one of these ramifications, society underwent substantial change during this time, which affected consumer behavior (Lins et al., 2022: 921). In this regard, a number of shopping habits, including compulsive buying (Jaspal et al., 2020: 3), impulsive buying (Naeem, 2020: 377), panic buying (Laato et al., 2020: 5), and revenge buying, were confirmed across the epidemic. The two most common purchasing patterns

were buying out of panic and buying out of retaliation. Both compensatory shopping and coping mechanisms are used to lessen uncomfortable sensations (Lins et al., 2022: 921).

Consumer Behavior Models

In order to endorse the variables influencing consumers' purchasing behavior and decision-making, many models of consumer behavior have been constructed. Because the model's concept is common and it has undergone changes through time, it is noteworthy that the same consumer behavior model may currently be found under several names in various locations. The economic models, Pavlovian learning models, psychoanalytic models and sociological models are conventional models of consumer behavior (Jisana, 2014: 37).

The Economic Model (EM)

This approach portrays consumers as intelligent, logical individuals. The choice of a product is based on the buyer's conviction that it is the finest in every way. Practically speaking, only a few customers will choose this model. Even yet, it is challenging for industrial consumers to adopt this strategy (Yadav, 2015: 2435). According to Jisana (2014: 37), this model allows for the prediction of consumer behavior based on economic parameters, for instance, the consumer's buying power and the competitiveness of the product pricing. For instance, if two comparable items are given at different prices, a consumer will choose the cheaper one to get the most value. However, a

rise in the consumer's income enables him to purchase more goods. Figure 2 illustrates the Consumer Behavior EM.

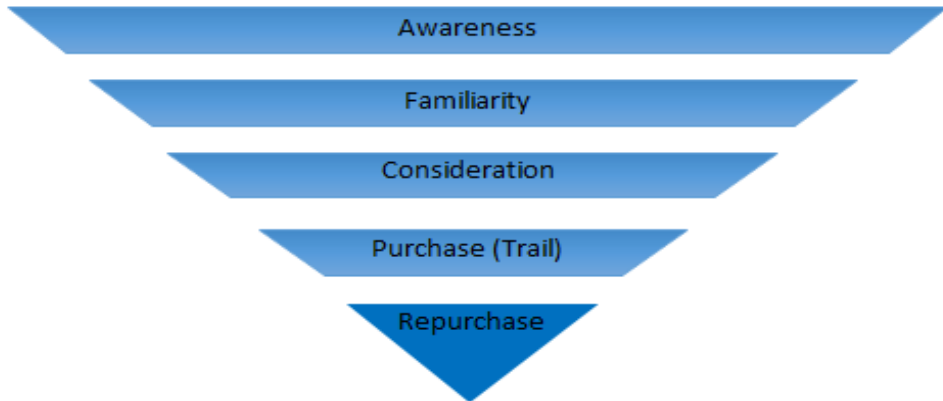


Figure 2: Economic model of Consumer Behavior (Yadav, 2015)

Pavlovian learning model

This consumer behavior model was developed by renowned Russian scientist Ivan Petrovich Pavlov. According to this concept, behavior is the result of practice, learning, and experience (Voramontri & Klieb, 2019: 212). This paradigm is predicated on the notion that the urge to satisfy both learnt and fundamental needs controls consumer behavior. Food, clothes, and shelter are considered basic needs, but regret and fear are considered learned needs. A customer will therefore have a inclination to purchase items that will fulfil their wants and make them happy. A hungry consumer may decide to forego purchasing a wonderful piece of jewelry in favor of purchasing some food, but she will return to buy the jewelry when her hunger has been filled (Jisana, 2014: 37).

Although the adaptive benefits of anticipatory behavior are obvious, O'Doherty, Cockburn, and Pauli (2017: 76) contend that Pavlovian learning is restricted to teaching an organism about occasions that take place independently of its activity. To put it another way, Pavlovian learning may aid an organism in anticipating the coming of food, but it won't assist that organism in obtaining its next meal.

The Theory of Planned Behavior (TPB)

Since its creation about two decades ago, TPB has established itself as a potent theory for understanding human behavior. The underlying assumption is that conduct is impacted by attitudes, norms, and perceived behavior control, and that behavior decisions are the outcome of a cognitive process (Smith et al., 2007: 2726). These dimensions largely affect behavioral intention, which in turn influences behavior. It is possible to state that people act in accordance with their intentions and refrain from acting in ways that they do not. Different subjective probabilities—beliefs about the outcomes of the conduct, beliefs about the normative expectations of others, and beliefs about the existence of elements that could help or hinder the behavior—guide human behavior. There are many different background influences that shape beliefs. Normative ideas provide subjective norms, control beliefs produce perceived behavior control, and behavioral beliefs produce attitudes toward conduct in its collective forms (Sommer, 2011: 91).

Maslow's Hierarchy of Needs

Abraham Maslow developed this well-known theory of human needs in 1943. There are five categories of requirements, and they are arranged hierarchically, according to Maslow's Hierarchy of Needs, commonly known as Maslow's theory of motivation (McLeod, 2018: 1). The hierarchy is arranged in levels with physiological requirements at the bottom and security, belongingness, esteem, and self-actualization needs at the top. Every level serves as a proponent for the level above it. An individual won't move on to the next need group until the requirements of a more crucial group are met (Loxton et al., 2020: 5). For instance, a poor individual wouldn't be interested in upscale gatherings or movie premieres. Prior to anything else, they will focus all of their concentration on getting food. The first category of requirements, physiological needs, includes food. The two items that are necessary for human survival are drinking and slumber. However, when all of the physiological requirements are met, one turns their focus to the following category of wants: safety needs. Shelter, safety, and protection are a few of them. Some people also include pure air in that group. The third level of significance is social needs, which include kinship, friendship, communication, intimacy, etc. Esteem requirements make up the fourth degree of needs. There are things like respect, independence, and self-worth that belong there. Finally, self-actualization requirements (Kotler & Armstrong, 2012: 148).

Consumer Behavior during Crisis

Each of the models discussed above provides distinct viewpoints on consumer behavior, providing information regarding various elements of how and why people make purchasing decisions in the marketplace. Overall, these models complement one another by providing distinct perspectives for understanding and analyzing customer behavior. In contrast, people frequently prioritize their needs differently in times of crisis. The changes all around them serve to establish this. In a pandemic, the significance of safety increases along with biological necessities, and people focus especially on these fundamental requirements. As a result, their purchasing habits adapt to the shifting of priorities. Di Crosta et al. (2021: 2) claim that various people's desire to purchase both needs and non-necessities items is affected by crises. Their study also shows that several factors, with a focus on psychological ones, individual attitudes, feelings, and behaviors, might cause changes in consumer behavior; nevertheless, the psychological element was the one that was most significantly impacted by the illness epidemic. Previous studies on behavior during pandemics and outbreaks connected behavioral change to both personal incentives and laws that were implemented. In situations that are novel and uncertain, reasoning at the individual and governmental levels is vulnerable to biases (Laato et al., 2020: 1). Since our capacity to encourage the adoption of health protective behavioral changes depends on our understanding of key factors of such behavior, knowledge is

essential for the successful management of newly developing infectious illnesses (Brug, Oenema, & Ferreira, 2005: 6).

Protection Motivation Theory (PMT)

Many theories relating to health behavior places a strong emphasis on risk perception. The Protection Motivation Theory, for instance, postulates that motivation for protection arises from a sense of threat and a desire to prevent a possible unfavorable consequence (Floyd, Prentice-Dunn & Rogers, 2000: 408). Therefore, risk perceptions are crucial for taking preventative measures, although they are frequently skewed. Risk perceptions are frequently a required but not always sufficient need for engaging in such actions. Thus, higher risk perceptions are likely to be associated with protective behavior only when people believe that effective protective measures are available (response efficacy) and are confident in their ability to take such protective measures (self-efficacy). People behave more safely when there is more novelty, uncertainty and unpredictability (Brug, Aro & Richardus, 2009:4). In contemporary historical events, there have been a number of epidemic outbreaks, including those caused by the swine flu, Severe acute respiratory syndrome (SARS), and Ebola (Balinska & Rizzo, 2009: 1). The epidemics have mostly affected two types of human behavior: consumer behavior and behavior related to reducing health risks. Additionally, in places affected by a pandemic, serious socioeconomic effects such as

job loss, lack of certainty, and an economic downturn usually follow (Laato et al., 2020: 2).

Stimulus-Organism-Response (S-O-R) Framework

The S-O-R concept asserts that environmental inputs, an individual's personal mental and emotional states, and their reaction to these factors all influence consumer behavior (Laato et al., 2020: 5). Consumer behavior often changes as environmental cues do. Extremely rapid changes in the environment can overwhelm a person's capacity for cognition, which causes them to react more emotionally. This may lead to irrational purchasing (Leung et al., 2020: 945; Tanveer et al., 2020: 6). A strong need to purchase goods, frequently in excess of what would be sensible, is referred to as panic buying. A milder shift in consumer behavior is known as irregular purchasing. Both panic buying and its milder variation, irregular purchase, were noted during the COVID-19 epidemic (Laato et al., 2020: 5). For instance, stores did not have enough toilet paper in a number of nations. One explanation offered is that individuals may have been more prepared for this because past coronaviruses, like SARS, produced diarrhea, nausea, vomiting, and stomach pain (Miri et al., 2020: 2). Other considerations were peer pressure (people worried they would run out of essential things unless they bought them right away) and the realization that there is ultimately no harm in buying necessities that endure for a long time and are needed in any event (e.g.,

toilet paper). According to Goodwin et al. (2009: 3), the swine flu pandemic caused individuals to buy more food. Additionally, a prior meta-analysis found that emerging issues, such those related to the environment, have a significant impact on consumer behavior (Joshi & Rahman, 2015: 130). Therefore, it follows that in the event of the COVID-19 pandemic, one's perception of its seriousness may affect how quickly one feels the need to respond by gathering supplies and getting ready for quarantine or other situations in which going about one's normal business is impossible (Laato et al., 2020: 5).

The Cognitive Load Theory (CLT)

The CLT was developed to explain how the brain processes new knowledge (Sweller et al., 2011: 31). Humans are assumed to have a finite capacity for cognition, according to the cognitive load theory. When this capacity is surpassed, the condition is known as cognitive overload, and it prompts a stress reaction in people to retreat to a more secure, less challenging context (Dhir et al., 2018: 141). In light of this, scholars have employed cognitive load theory to justify a broad range of events that call for intellectual thinking and situation interpretation (Laato et al., 2020: 3). Consumer psychology and behavioral economics research from the past have shown that various psychological elements have varying effects on consumer behavior (e.g. Durante & & Laran, 2016; Kim et al., 2022). For instance, the PMT, which was developed by Rogers in 1975, describes why people engage in protective activities when

faced with a danger stimulus. The choice to participate in protective activities is controlled by two different cognitive processes—threat assessment and coping appraisal—in the split approach of PMT. Individuals employ the cognitive process of threat evaluation to determine the gravity of a danger. Threat vulnerability, threat severity, and maladaptive incentives are three crucial components of threat assessment that are thought to be antecedents of people's coping mechanisms. According to the hypothesis, people start acting in risk-preventing ways when they perceive their vulnerability and severity as being high. High reward perception is known to reduce risk-preventing behaviors, though (Kim et al., 2022: 559). Additionally, coping assessment is defined as a person's capacity to engage in protective activities in the presence of a threat (Janmaimool, 2017: 4). Response cost, self-efficacy, and response efficacy are the components of the coping appraisal. A low perceived cost of carrying out preventative action is essential for encouraging people to engage in suggested activities. People are more likely to take adaptive activities when the coping appraisal yields a favorable evaluation (Kim et al., 2022: 559).

Panic Buying

"Panic purchasing, as defined by Islam et al. (2021: 2), is the bulk buying of goods due to sudden fears of scarcity or price hikes. Tsao et al. (2019: 219) describe it as a response to heightened anxiety rather than actual shortages. This behavior stems from people's desire for regaining control, especially

during crises like epidemics (Lins et al., 2021: 435). Negative emotions like fear, panic, and feelings of insecurity have an impact on behavior and might cause people to purchase more items than normal, which is known as panic purchasing. This form of consumer behavior is commonly event-induced and takes place during catastrophes, tragedies, and public health emergencies, creating a tremendous spike in purchasing activity. It is typically connected to the purchase of critical goods (Lins et al., 2021: 435). In conclusion, panic buying may be seen as a compensatory consuming activity, which implies that people use product purchases to make up for shortfalls caused by inaccurately perceived wants and desires that are only able to be partially satisfied (Yuen et al., 2020: 8). The bulk buying behavior can lead to temporary or permanent shortages of products, impacting vulnerable groups like the elderly and underprivileged who may struggle to access essential items during times of scarcity (Besson, 2020). Yuen et al. (2020) identified four main factors contributing to panic buying: perception, fear of the unknown, coping mechanisms, and social psychology. Consumers engage in self-protective behaviors, such as panic buying, to mitigate perceived risks associated with COVID-19. Anticipated supply shortages further drive hoarding behavior (Yoon, Ram, & Myung, 2017: 18).

Herding Mentality

The ideas around hoarding and panic purchasing are strongly related to herd mentality in this situation. Although a panic buying activity can exist by itself and represent the behavior and thinking of a single person, the perspective can be strengthened when it is held by a larger group. This thinking might result in panic buying; hence the correlation is drawn. Whether there is a real or perceived risk of a product scarcity, herd mentality, or collective (re)action among customers, can result in actual shortages of a product. It can therefore lead to anxiety and irrational conduct (Sherman et al., 2021: 491), which puts strain on global operations and supply networks (Lufkin, 2020; Yuen et al., 2020: 1). Herd mentality is described as collective thinking and behavior that develops via local interactions rather than under the leadership of a central figure (Kameda & Hastie, 2015: 2). Consumer purchasing patterns and social fear can contribute to the growth of herd mentality in shock and crisis circumstances. This kind of thinking causes issues because customers rush to acquire particular goods before suppliers can keep up. Consumers often follow the purchase habits of others during times of crisis rather than adhering to official advice (Loxton et al., 2020: 2). The herd mentality hypothesis broadly encompasses two ideas: dismissing one's own knowledge and copying others. When people prioritize the opinions of other individuals over their own, they are said to be discounting their own knowledge.

In contrast, imitation involves a sequence of steps in which people copy the behavior of others with the use of supplementary signals (Xu & Warkentin, 2020: 2). While studying the different forms of consumer behavior helps to explain how people interact with the market, it is also critical to understand how these behaviors convert into actual results.

Millennials and Shopping Behavior

According to the notion of generation cohorts, each generation group is unique from the others in some manner as a result of various experiences occurring at various periods (Ignatius & Hechanova, 2014: 74). According to the hypothesis, generational disparities are far more probably triggered by a generation's common interests and experiences than they are by an individual's age (Jones et al., 2018). As a result, groups of people that share the same time of birth and experiences will have common characteristics, behaviors, and convictions that last all through the generation's existence and serve to define its generational identity (Carpenter et al., 2012: 413). Generational identity greatly affects purchasing habits and purchasing behavior in the context of consumers (Lissitsa & Kol, 2016: 305). Each chosen generation in the context of the study that is presented and briefly defined in the paragraph that follows.

The Internet Generation, generation Y, or digital natives are other names for Millenials. People from this generation tend to be self-assured, aspirational, multilingual, and goal-oriented

(Eger et al., 2021: 3). They are knowledgeable concerning current events. They are always on the lookout for new developments, and typically base their purchasing decisions on past study (Lissitsa & Kol, 2016: 306). When they go shopping, they don't go to the same places their parents did. When compared to traditional stores, internet shopping provides them a number of advantages, such as simple ordering, fast shipping, and affordable costs. Product lines that fit their personalities and lifestyle are what they seek. This generation of consumers tends to have higher levels of debt than earlier generations, spend significantly more on personal or digital services than on clothing, and make less money overall. They employ a variety of electronic platforms and tools for their communication, including social media sites like Facebook. They are more inclined to look for a certain brand. In many cases, they want rapid shopping as contrasted to Baby Boomers (Eger et al., 2021: 3).

Online Consumer Behavior (Digitaization)

Recent changes in communication, technology, information, and marketing have altered how customers are informed about and make purchases of certain goods and services. The rapid growth of information and communication technologies over the past few years has also established a marketplace where businesses can advertise, market, and disseminate their goods and services while also enabling customers (individuals or businesses) to purchase the goods and services they require (Dumitrescu et al., 2015: 63).

Online purchases that utilize the internet as their primary instrument are generally referred to as shopping online. Consequently, online shopping can be seen as an additional aspect of internet-based e-commerce where any company may use it and utilize it to their advantage, pushing a vast number of items on online sales (El Chami, 2018: 58). Today's customer purchasing habits for goods and services are influenced by both online and offline retailers (Dumitrescu et al., 2015: 66). Although the stages of recognizing the need, information search, weighing the options, making a decision, and post-purchase behavior are the same (Kotler & Armstrong, 2012: 152) the online consumer behavior in large part is related to a number of factors, according to Dumitrescu and colleagues (2015: 66) these factors are price, trust, and convenience. Table 1 demonstrates the impact of each of these factors on the consumers.

Factor	Influence
Price	Customers can use a product's price to determine its relative worth
Trust	Consumers tend to prioritize their personal security and their safety requirements before completing a purchase
Convenience	Customers' readiness to make purchases at anytime, anywhere

Table 1: Factors that affect the online consumer decision

In spite of the extensive study on internet customer behavior, the Covid-19 outbreak caused a significant shift in consumer behavior. Another aspect that has affected customers during the lockdown is the requirement to make digital decisions for leisure, education, and purchasing (Heinonen & Strandvik, 2020).

Moreover, as per a Euromonitor study, consumers' attitudes about internet purchasing are becoming more and more entrenched (Berezka et al., 2021).

Research Methodology

This research aims to investigate the impact of psychological factors on online consumer behavior for unnecessary products during the Covid-19 pandemic in Egypt. Therefore, the main research question that guides the research reads: “What are the effects of the psychological factors on online consumer behavior for unnecessary products during the Covid-19 pandemic in Egypt?” The focus of the research on “millennials” generation. Millennials account up a sizable percentage of the consumer market, with purchasing power in a variety of industries. Understanding their consumer behavior can help firms target this population more successfully. In addition, Millennials have been referred to as digital natives since they grew up with technology and the internet. This makes them extremely flexible to online buying and digital marketing methods, providing unique chances for research into online consumer behavior and e-commerce trends. Moreover, Millennials frequently have different tastes and ideals than previous generations. Researching their customer behavior may help firms remain relevant and change their products, services, and marketing methods to fit this demographic's changing wants and preferences. As one of the largest and most important groups, Millennials have a significant

impact on consumer trends and market dynamics. Researching consumer behavior may give significant insights into future market trends and customer preferences, allowing organizations to predict and adjust to changing market conditions. Therefore, selecting Millennials for consumer behavior research provides a chance to obtain useful insights into a group that has a large influence on numerous businesses and drives consumer trends

in the current market. The research also aims to find out how did online consumer behavior in Egypt change during covid-19, and how the psychological factors affected online purchase behavior during the pandemic. Eventually, the research attempts to find out how businesses capitalized on the opportunity coming from online purchase behavior.

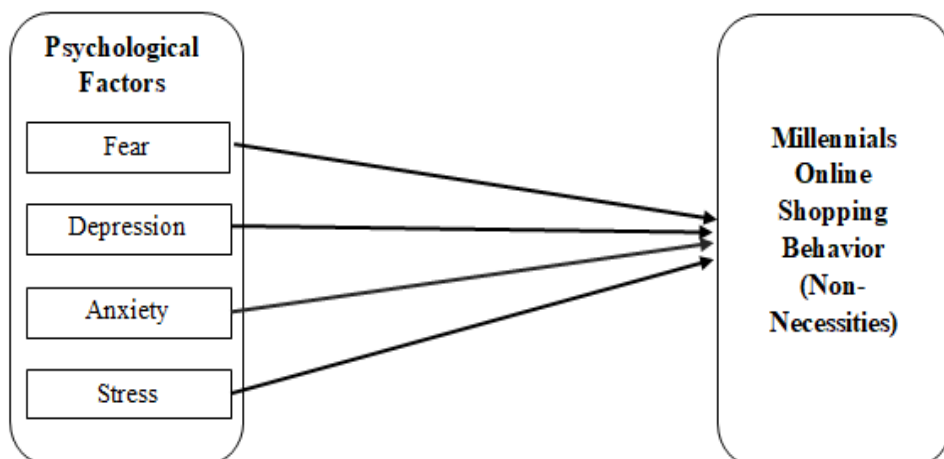


Figure 3: research conceptual framework

The conceptual framework identifies four psychological factors that are examined in order to know their impact on the behaviors of millennials when shop online. The above model is formulated based on a combination of several recent studies in the field under investigation. First, the psychological factors were adopted from two different sources. Fear was adopted from the research by Ahorsu et al. (2022) on the consequences of Covid-19 which has led to fears among individuals worldwide. The second group of the psychological dimensions which include depression, anxiety and stress, factors was the research by Osman et al. (2012) on the examination of the depression, anxiety and stress scales dimensions and scale reliability. The independent variable "online shopping behavior" was adopted from two researches by Gu et al. (2021) and Dewan (2021) while shopping for non-necessities was developed by the researcher.

Based on the conceptual framework and in order to find answers to the research questions, the following hypotheses were developed:

H₁: The stimulation of the psychological factors during covid-19 is associated with an increase of online shopping behavior among millennials for non-necessities.

H₁₋₁: High levels of fear during covid-19 increase millennials online shopping behavior of non-necessities.

H₁₋₂: High levels of depression during covid-19 increase millennials online shopping behavior of non-necessities.

H₁₋₃: High levels of anxiety during covid-19 increase millennials online shopping behavior of non-necessities.

H₁₋₄: High levels of stress during covid-19 increase millennials online shopping behavior of non-necessities.

Research Design

Data is collected by means of mixed type research that involves collecting quantitative and qualitative data to ensure both breadth and depth in research design (Schoonenboom & Johnson, 2017: 108). The quantitative data is collected by means of a self administered questionnaire to assess the consumers' perceptions on their behavior during the Covid-19 pandemic. The first group of questions aims to collect demographic data and filtering questions. The filtering questions inquire about the age of the respondents. Based on the answer to this question, the respondent either completes the questionnaire or stops. Another two questions inquired about shopping from Zara and H&M as examples of shopping for non-necessities. However, these two items were just examples and it is explained in the questionnaire that non-necessities may include other items and services. Therefore, the responses to these two questions were not decisive factors in the completion of the questionnaire. The next sections of the questionnaire investigated the levels of the psychological factors in the following order, fear, depression, anxiety, and then stress. All psychological factors were given the same weight in the scale. The questions that investigate the level of the fear

factor were adopted from the article by Ahorsu et al. (2022) while the questions that investigate the level of the other three factors were adopted from the Depression, Anxiety, Stress Survey (DASS-21) scale in the article by Osman et al. (2012). The online shopping behavior scale items were adopted from the article by Dewan (2021). The following questions explored the dependent variable related to the purchase non-necessities (represented by purchase of cloth from Zara and H&M) and these scale questions were developed by the researcher.

The qualitative data is collected by means of in-depth interview. Qualitative data aimed to capture the businesses perceptions of the change in purchase habits and to know how businesses reacted to such changes. According to Barrett and Twycross (2018), "Collecting data through interviews with participants is a characteristic of many qualitative studies. Interviews give the most direct and straightforward approach to gathering detailed and rich data regarding a particular phenomenon" (p. 63). In this research, semi-structured interviews are employed, combining structured questionnaires with flexibility for probing specific themes (Boyce & Neale, 2006). Subjective records from interviews offer valuable data, particularly for sensitive topics and gathering narrative insights (Weller et al., 2018). They facilitate deeper investigations into interviewees' opinions and experiences, enhancing the richness of qualitative data collection (Alshenqeeti, 2014). Designing the

interview questions was carried out in a manner that allows deeper understanding of the consumers' reactions and behaviors during the Covid-19 pandemic and how businesses capitalized on the change in behavior. Collecting data from an experienced person who is involved in direct contact with the consumers would be quite beneficial and contributes positively to this research. The interview questions started by general questions about the interviewee. The next questions were the target questions and started by general questions about the normal behaviors (before the pandemic) and moved on to more detailed ones that inquire about the consumer behavior during the pandemic in order to highlight the changes in behaviors. The questions are semi structured as the interviewer asks a question and let the interviewee respond at ease and is allowed to tackle any other points that might seem to be relevant to the question from the view point of the respondent. Conscious effort is made a not to use phrases like "hoarding" or others that could be associated with negative connotations throughout the interviews. The interview questions were developed by the researcher and are mainly based on the information collected through the literature review. The interviews are recorded and the respondents were informed that the interviews are recorded for analysis purposes. The interview questions are presented in the appendix section.

The Population and Research Sample

The whole population of this research involves all millennials in Egypt, that shop online in general and for non-necessities in particular. The focus was on two cities; Cairo and Alexandria for practical reasons. Since interviewing the whole population is not applicable, sampling techniques are used. Two types of samples were selected to complete the data collection phase of this research. The first sample included the respondents to the questionnaire. Convenience sampling technique is used. Convenience sampling is a non-probability sampling method where respondents are selected for inclusion in the sample because their willingness to participate in the research. The questionnaire was posted on google forms web site and the link was posted on Facebook and Twitter. 650 individuals and returned answers to the questionnaire. However, only a number of responses of 480 were complete. Among these 480 responses, there were only 408 valid responses with a response rate of 63%. The second sample included the interview respondents. Those respondents were selected based on their work location. The sample included managers and senior sales people in both Zara and H&M stores; 17 respondents completed the interviews.

Findings and Analysis

Demographics Analysis

The 480 responses are divided according to their age to 408 respondents aged from 22 to 39, which represent the target population, and only 72 respondents aged otherwise. Those 72 respondents are excluded from the analysis as their ages are outside the age that this research is interested in.

The gender distribution among male participants represents 73.5% which is higher than their female counterparts who reveal only 26.5% of participants. The demographic data also reveals that only 0.5% among survey participants are still undergraduates, 55.6% of the participants acquired either a bachelor's or license degree, 39.2% of the participants acquired a master's degree while 4.7% of the participants acquired doctorate or PhD degree. Moreover, that data shows that 1.7% among survey participants are still students, 3.1% of the participants are unemployed, another 89.6% of the participants are employed while 5.6% of the participants are self-employed while 92.4% among survey participants participate in their house in regard to shopping while 7.6% of the participants don't participate in their house in regard to shopping. 44.6% among survey participants shop for apparels from Zara while 55.4% of the participants don't shop for apparels from Zara and 61% among survey participants shop for apparels from H&M while 39% of the participants don't shop for apparels from H&M.

Variable	Frequency	Percentage
Gender		
male	300	73.5%
female	108	26.5%
Educational Level		
undergraduate	2	0.5%
bachelor's degree/license	227	55.6%
degree	160	39.2%
master's degree	19	4.7%
PhD degree		
Employment Status		
student	4	1%
unemployed	9	2.2%
employed	371	90.9%
self-employed	24	5.9%
Do you participate in the decision made in your house in regard to shopping?		
yes	377	92.4%
no	31	7.6%
Do you shop for apparels from Zara?		
yes	182	44.6%
no	226	55.4%
Do you shop for apparels from H&M?		
yes	249	61%
no	159	39%

Table (2): description of demographic characteristics among survey participants (n=408)

Reliability and Validity Analysis

Cronbach's Alpha reflects a good reliability of the research statements as its values range from 0.862 to 0.943 for main indicators and for sub indicators, the values range from 0.874 to 0.910. Also, the values of average item correlation indicate the

validity of the questionnaire. The results of the Factor Analysis show that all items are loaded in their constructs as suggested in the proposed model, as the loadings of all items are greater than 0.5. Also, AVE values indicate that the constructs could explain more than 50% of the statements which indicate high internal validity.

Descriptive Statistics of Constructs and Statement Items

- Psychological Factors

The survey was comprised of 28 statements to measure the psychological factors where respondents tend on average to neutrally agree to these statements as the mean values are between 2.5 and 3.5.

This variable is divided into 4 sub-dimensions than can be described as follows:

- Fear Factor

- Respondents tend to neutrally agree to the statements related to the fear factor as the mean values are between 3.5 and 4.5.
- The statement with the highest agreement is "I was most afraid of coronavirus-19" while the one with the lowest agreement is "I was afraid of losing my life because of coronavirus-19".
- The homogeneous statement, with lower variance, is "I was most afraid of coronavirus-19" with COV equals 25.21% while the nonhomogeneous statement, with highest variance, is "I was afraid of losing my life because of coronavirus-19" with COV equals 36.71%.

- Depression Factor

- Respondents tend to neutrally agree to the statements related to the depression factor as the mean values are between 2.5 and 3.5.
- The statement with the highest agreement is "I couldn't seem to experience any positive feeling at all" while the one with the lowest agreement is "I felt that Life was meaningless".
- The homogeneous statement, with lower variance, is "I felt that I had nothing to look forward to" with COV equals 39.4% while the nonhomogeneous statement, with highest variance, is "I felt that Life was meaningless" with COV equals 49.80%.

- Anxiety Factor

- Respondents tend to disagree to the statements related to the anxiety factor as the mean values are between .5 and 2.5.
- The statement with the highest agreement is "I was aware of dryness of my mouth" while the one with the lowest agreement is "I experienced trembling (e.g. in the hands)".
- The homogeneous statement, with lower variance, is "I experienced trembling (e.g. in the hands)" with COV equals 42.64% while the nonhomogeneous statement, with highest variance, is "I felt scared without any good reason" with COV equals 46.08%.

- Stress Factor

- Respondents tend to neutrally agree to the statements related to the stress factor as the mean values are between 2.5 and 3.5.

- The statement with the highest agreement is "I found myself getting disturbed" while the one with the lowest agreement is "I tended to over-react to situations".

- The homogeneous statement, with lower variance, is "I was intolerant of anything that kept me from getting on with what I was doing" with COV equals 38.50% while the nonhomogeneous statement, with highest variance, is "I felt that I was using a lot of nervous energy" with COV equals 42.60%.

- Millennials Online Shopping Behavior (Non-Necessities)

- The survey was comprised of 15 statements to measure millennials online shopping behavior where respondents tend on average to neutrally agree to these statements as the mean values are between 2.5 and 3.5.

- The statement with the highest agreement is "Shopping online was more practical than in-store shopping during covid-19 pandemic" while the one with the lowest agreement is "During covid-19 pandemic. I shopped online when I felt nervous".

- The homogeneous statement, with lower variance, is "I felt relaxed when I shopped online during covid-19 pandemic" with COV equals 26.32% while the nonhomogeneous statement, with highest variance, is "During covid-19 pandemic, when I panicked, I preferred to shop online than other activities (gym – eating out - meditation)" with COV equals 38.63%.

Inferential Data Analysis

The results of the two tests, shown in the following table, revealed that all study variables, except the dependent variable, were not normally distributed because the significance value of those variables were below 0.05. However, since the valid collected sample is 408 responses hence, according to Sekaran (2003), a research study sample size which is above 30 to 50 participants is capable of running parametric tests especially in multivariate research.

	Kolmogorov Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Independent Variables						
Psychological Factors	0.049	408	0.020	0.992	408	0.023
Fear	0.095	408	0.000	0.984	408	0.000
Depression	0.078	408	0.000	0.986	408	0.001
Anxiety	0.093	408	0.000	0.978	408	0.000
Stress	0.071	408	0.000	0.98	408	0.000
Dependent Variable						
Millennials Online Shopping Behavior	0.058	408	0.002	0.995	408	0.175

Table (3): normality tests

Correlation Test

The following table illustrates the values of Pearson's Correlation Coefficient for the constructs, and from these values we can conclude that:

- There is a significant positive moderate relationship between the psychological factors and millennials online shopping behavior, as the significance value is less than 0.05.

- There is a significant positive moderate relationship between the fear factor and millennials online shopping behavior, as the significance value is less than 0.05.
- There is a significant positive moderate relationship between the depression factor and millennials online shopping behavior, as the significance value is less than 0.05.
- There is a significant positive moderate relationship between the anxiety factor and millennials online shopping behavior, as the significance value is less than 0.05.
- There is a significant positive moderate relationship between the stress factor and millennials online shopping behavior, as the significance value is less than 0.05.

	Psychological Factors	Fear	Depression	Anxiety	Stress	Millennials Online Shopping Behavior
Psychological Factors	1					
Fear	0.697**	1				
Depression	0.817**	0.452**	1			
Anxiety	0.823**	0.408**	0.501**	1		
Stress	0.890**	0.428**	0.675**	0.745**	1	
Millennials Online Shopping Behavior	0.408**	0.249**	0.317**	0.360**	0.387**	1

**** Correlation is significant at the 0.01 level (2-tailed)**

Table (4): Pearson's Correlation Coefficients

Answering Hypotheses

The model tested included fear factor, depression factor, anxiety factor and stress factor as the independent variables, and millennials online shopping behavior as the dependent variable, The following equation is estimated.

shopping behavior

$$= \beta_0 + \beta_1 fear + \beta_2 depression + \beta_3 anxiety + \beta_4 stress + \epsilon_{it}$$

Based on the results, it can be inferred that stress factor doesn't significantly affect millennials online shopping behavior, with confident 95%. So, this path will be removed from the model and the model will be re-estimated again.

Model	Unstandardized Estimate	Standardized Estimate	Std. Error	C.R	Sig.
Millennials Online Shopping Behavior ← Fear	0.402	0.375	0.034	11.849	***
Millennials Online Shopping Behavior ← Depression	0.172	0.171	0.036	4.842	***
Millennials Online Shopping Behavior ← Anxiety	0.142	0.136	0.039	3.595	***
Millennials Online Shopping Behavior ← Stress	0.028	0.03	0.036	0.779	0.436

*** means that the variable is significantly different from zero at the 0.001 level (two-tailed).

Table (5): regression weights

The following shows the estimates of the above model which can be interpreted as follows:

- The fear factor has a significant direct positive impact on millennials online shopping behavior, and this impact equals 0.402 with confident 95%.
- The depression factor has a significant direct positive impact on millennials online shopping behavior, and this impact equals 0.183 with confident 95%.

- The anxiety factor has a significant direct positive impact on millennials online shopping behavior, and this impact equals 0.156 with confident 95%.

- The total effect of the fear factor on millennials online shopping behavior is 0.462, the total effect of the depression factor on millennials online shopping behavior is 0.206, the total effect of the anxiety factor on millennials online shopping behavior is 0.249 while the total effect of the stress factor on millennials online shopping behavior is 0.089.

Model	Unstandardized Estimate	Standardized Estimate	Std. Error	C.R	Sig.
Millennials Online Shopping Behavior ← Fear	0.402	0.374	0.033	12.270	***
Millennials Online Shopping Behavior ← Depression	0.183	0.181	0.039	5.254	***
Millennials Online Shopping Behavior ← Anxiety	0.156	0.136	0.039	3.985	***

***** means that the variable is significantly different from zero at the 0.001 level (two-tailed).**

Table (6): regression weights

Model	Direct Effect	Indirect Effects	Total Effect	Interpretation
Millennials Online Shopping Behavior ← Psychological Factors	0.818	0.242	1.060	Partial Mediation

Table (7): direct, indirect, and total effects

Qualitative Findings and Analysis

Based on the responses collected from the store managers and sales people H&M and Zara stores in Cairo and Alexandria (collective responses after grouping is attached in Annex C), the

following findings was revealed. Store managers showed a deep awareness of Covid-19's substantial influence on the fashion sector. However, they were unable to identify the psychological states or patterns, and hence their influence on customer behavior. They did, however, acknowledge the pandemic's multifarious obstacles, which included supply chain interruptions, physical retail shop closures, fashion event cancellations, and alterations in consumer behavior. By recognizing these problems, the managers demonstrate a great understanding of the industry's intricacies and the need for strategic change.

Managers from both chains noted shared obstacles experienced by the fashion business during the pandemic, including as supply chain interruptions, inventory management concerns, shorter working hours, increased customer uncertainty, and lower consumer trust. These problems have had a substantial influence on corporate operations, forcing the management to create adaptive techniques to properly traverse them. Managers in Zara stores were more concerned with the strategy shift toward online sales channels and digital marketing campaigns. Commercial companies were shuttered, manufacturing was halted, and transportation was hampered as a result of the strict lockdown laws. However, internet shopping was allowed (Bisaria, 2021:87). Zara store managers demonstrated a proactive approach to reaching customers and driving sales by expanding e-commerce infrastructure and investing

in digital marketing. This strategy emphasis on online channels demonstrates a grasp of the increased transition toward digital commerce in response to changing customer preferences and market dynamics in the face of Covid-19 pandemic constraints. On the other side, managers of H&M locations highlight a variety of steps aimed at safeguarding the safety of employees and customers while keeping the business running. These include instituting hygiene measures, enforcing social distance policies, switching to remote work, and modifying inventory levels. Managers in H&M stores exhibit a commitment to both stakeholder health and company continuity by prioritizing safety measures and operational improvements.

Managers from the two companies present interesting insights on how the epidemic has impacted consumer behavior. They see patterns such as lower expenditure on non-essential things, an increase in demand for comfortable clothing, and a preference for internet shopping. This is consistent with Heinonen and Strandvik's (2020: 102) assertion that the Covid-19 epidemic produced a dramatic shift in consumer behavior, and that customers during the lockdown had to make digital decisions for leisure, education, and purchase. By spotting these transitions, the managers demonstrate a strong awareness of changing customer preferences and the need of matching product offers and marketing tactics with changing market dynamics.

The managers examined alterations in customer purchasing habits, noting developments such as decreased expenditure on non-essential products, increasing emphasis on comfort and utility, and a shift toward bulk buying and internet shopping. This is consistent with Le Grand (2020), who observed an increase in medical garment prices and packets of alcohol wipes. While automotive manufacture was completely ceased, non-essential products such as books, furniture, gadgets, and shoes could only be purchased through online shopping portals.

Both chains managers shared similar thoughts on changes in sales performance throughout the epidemic. They observed changes in in-store sales, with periods of reduction during lockdowns and steady recovery when restrictions were lifted. Managers also remarked considerable increase in online sales, indicating a larger trend of rapid e-commerce adoption in response to changing customer behavior. By measuring sales success across many channels, managers demonstrate their ability to react to changing market conditions and use digital platforms to preserve income streams.

The managers acknowledged the impact of emotional states on consumer behavior, including stress, uncertainty, and optimism. According to Chukwu and colleagues (2019: 4), a variety of emotional, psychological, and physical factors influence customers' purchase decisions. The managers, for example, realized that stress may lead to spontaneous purchases,

whilst uncertainty might make customers more open to recognizable brands. They struggled to figure out the subtle effect of emotions such as nostalgia or social connection. Furthermore, their reactions may lack a thorough knowledge of all psychological aspects, such as anxiety and sadness, or may fail to distinguish between them. For example, they may have mistaken the influence of enthusiasm for worry, or they could have overlooked the function of shame in pro-social purchasing habits. Nonetheless, they acknowledged that emotional elements frequently influence customer purchase decisions, and that understanding these underlying reasons is critical for properly personalizing marketing strategies and product offers. This knowledge is critical since emotions may impact everything from product choice to brand loyalty. Positive emotions, such as joy or enthusiasm, can lead to increased spending, whereas negative emotions, such as fear or wrath, can cause avoidance behavior.

While the reported growth in online purchasing across all age groups is significant, the analysis dives further, indicating a critical trend: millennials and Gen Z, particularly those aged 18 to 35, have emerged as the dominating force driving website and app usage. This sophisticated cohort, which was already familiar with digital platforms for both commerce and social activities, embraced the simplicity and accessibility of online solutions during the epidemic. These findings confirm Eger et al.'s (2021: 3) observation that these two generations communicate using a range of technological

platforms and tools, including social media sites such as Facebook. In comparison to Baby Boomers, they are more likely to seek out certain brands and, on average, prefer quick shopping. Furthermore, with limited opportunities for physical meetings and social activities, younger customers went to online channels for fashion purchases, adding considerably to the increase in traffic on digital platforms, according to the management. This development demonstrates their natural affinity for e-commerce and highlights the growing necessity of catering to their online buying tastes. Beyond revealing these tendencies, the responses encourage additional investigation. Examining certain fashion categories popular with younger groups would provide significant information into their tastes and purchasing behaviors. Furthermore, knowing the factors driving their online purchases - whether convenience, social impact, or unique product offers - would provide firms with even more effective targeting methods.

Discussion

The quantitative analysis of the data revealed several significant relationships between psychological factors and Millennials' online shopping behavior. These findings shed light on the intricate dynamics at play amidst the COVID-19 pandemic, providing valuable insights into consumer behavior in Egypt.

The investigation identifies particular links between individual psychological characteristics and consumer behavior. Notably, fear, depression, and anxiety have substantial positive

correlations with Millennial online buying activity. These findings highlight the deep influence of negative emotions on consumer decision-making processes, underlining the need of firms considering psychological variables when developing marketing strategies and customer engagement activities. Interestingly, the association between stress and Millennials' online buying behavior was found to be non-significant, suggesting that stress is not the key driver of online purchase decisions among this demographic group in Egypt.

Given these data, it is clear that psychological variables play an important role in affecting consumer behavior during the COVID-19 pandemic, particularly in the context of online buying. Businesses in the e-commerce business need to recognize the significance of meeting consumers' psychological needs and emotions in order to effectively connect and keep customers in this tough climate.

The qualitative analysis of interviews with H&M and Zara store managers and salespeople in Cairo and Alexandria offers valuable insights into the impact of the COVID-19 pandemic on the fashion industry and consumer behavior, as well as the adaptation strategies adopted by businesses. Managers demonstrate a profound awareness of the pandemic's significant influence on the fashion sector, acknowledging challenges such as supply chain disruptions and shifts in consumer behavior. While uncertain about the specific psychological factors driving

these changes, their recognition of challenges reflects a comprehensive understanding of the industry's complexities and the need for strategic adaptation.

The response outlines typical pain points and obstacles that consumers have while purchasing online, as well as possibilities for development in e-commerce operations. By responding to these issues, fashion shops may improve consumer happiness and loyalty, resulting in repeat business and favorable word-of-mouth recommendations. Consumer complaints focused mostly on product quality, shipping delays, and customer service. Some buyers reported obtaining items that did not meet their quality or accuracy expectations based on internet descriptions. Furthermore, problems in reaching customer service or resolving issues with orders increased unhappiness among certain consumers.

By looking further into these aspects, it can go beyond just recognizing demographic trends and actively using them to build targeted marketing campaigns, manage appropriate product selections, and ultimately foster stronger interactions with younger generations of online buyers. It is noteworthy to mention that understanding not only who the consumers are, but also why and how they purchase online, is critical to achieving success in the ever-changing digital market. This finding aligns with past research. According to Dumitrescu and colleagues (2015: 75), the exponential growth of technology for communication and information over the past several years, together with the

emergence and significant impact of novel channels of communication between consumers and businesses, have generated a new and innovative environment for businesses and marketing specialists to propose and implement new online strategies.

Future projections include continuous increase in online purchasing as customers prefer digital channels for convenience, safety, and diversity. The trend of casualization and comfort in fashion is predicted to continue, with a sustained emphasis on adaptable and utilitarian clothing suited for a variety of living circumstances. Furthermore, ecological and ethical concerns are projected to become increasingly important in consumer purchase decisions, fueling demand for environmentally friendly and socially responsible fashion firms. Furthermore, technological innovations such as virtual fitting rooms and augmented reality experiences are projected to improve the online buying experience, speeding the fashion industry's digital transition. Such a reaction provides forward-looking insights into projected trends and consumer behavior in the post-pandemic world, as well as strategic counsel for fashion businesses. Businesses may position themselves for success and resilience in an ever-changing market environment by staying on top of emerging trends and embracing technology and sustainability efforts.

Furthermore, their concentration on understanding customer behavior and exploiting digital platforms demonstrates a strategic attitude focused on future growth and success. By embracing

adaptive methods and using technology, the two chain shops' management positions their businesses to prosper in the post-pandemic period. Overall, the findings highlight the significance of proactive planning, innovation, and customer-centric methods to meeting the problems and capitalizing on the opportunities given by the Covid-19 epidemic. The responses underscore the increasing importance of online shopping, particularly among Millennials and Gen Z, who have emerged as key drivers of online commerce. Managers identify typical pain points experienced by consumers during online shopping, such as product quality and customer service issues, emphasizing the need for optimization of e-commerce operations.

Conclusion

Finally, this paper investigated the complex interaction between psychological aspects and online consumer behavior during the extraordinary COVID-19 pandemic, with a particular focus on Egyptian Millennials. A combination of quantitative research and qualitative interviews with store managers and salespeople from H&M and Zara stores in Cairo and Alexandria provided useful insights into the underlying causes of internet buying behavior throughout the global crisis.

The study's findings show that psychological elements such as stress, anxiety, depression, and fear have a substantial influence on Millennials' online shopping behavior, especially when it comes to seeking escape through non-necessity

purchasing. Despite the problems created by the epidemic, Millennials showed a preference for internet purchasing as a strategy of dealing with psychological anguish and uncertainty.

Furthermore, the study emphasizes the necessity of adaptive techniques used by organizations to respond to changing customer behavior patterns. Both H&M and Zara stores displayed resilience and creativity by putting staff and customer safety first, extending e-commerce infrastructure, and adopting digital marketing methods to match the changing demands of their target demographic.

Implications

This research has a wide range of implications. Understanding the emotional determinants of online consumer behavior may help organizations make better strategic decisions, resulting in more successful marketing campaigns, individualized product offers, and improved customer experiences. Policymakers may utilize these findings to create regulatory frameworks that promote openness, fairness, and consumer protection in the digital economy. Furthermore, educational activities focused at encouraging digital literacy and safe online shopping habits can help customers make educated decisions and reduce the hazards associated with impulsive purchasing behaviors motivated by psychological considerations.

Overall, this thesis adds to the body of knowledge on consumer behavior by shedding light on the complex interaction

of psychological elements and online buying patterns in the midst of a worldwide crisis. Recognizing and satisfying Millennials' emotional needs allows firms, politicians, and consumers to manage the obstacles and possibilities given by the digital economy, ensuring a more adaptive and sustainable future for the e-commerce industry.

Limitations

While this study gives useful insights into the influence of psychological aspects on online consumer behavior during the COVID-19 epidemic among Egyptian Millennials, many limitations must be acknowledged:

Sampling Bias: Because the questionnaire was predominantly distributed via social media sites, it is possible that sampling bias was created by selecting individuals who are more engaged on these platforms. This may have resulted in a distorted representation of Egypt's Millennial population, limiting the findings' generalizability.

Geographic limitation: The interviews were conducted only in Cairo and Alexandria, which are both metropolitan areas with unique socioeconomic profiles. As a result, the findings may not completely reflect the range of experiences and opinions throughout Egypt's many regions, limiting their applicability to other geographic locations.

Reluctance of Store Employees: Some store employees were hesitant to disclose information during the interviews, which might

have resulted in incomplete or skewed results. This hesitation may be due to worries about job security, confidentiality, or other personal reasons, resulting in possible gaps in understanding the influence of psychological aspects on consumer behavior from the perspective of frontline retail workers.

Recommendations

Diversify Data gathering techniques: To reduce sampling bias, future research can explore expanding data gathering techniques outside social media platforms in order to reach a more representative sample of the target audience. This might involve doing in-store surveys or phone interviews to gather feedback from those who aren't on social media.

Expand Geographic Coverage: Future Egyptian scholars should broaden their study efforts to encompass more geographical places than only Cairo and Alexandria. This would give a more thorough understanding of regional differences in customer behavior and tastes, allowing for more focused marketing tactics and product choices.

Longitudinal Studies: Longitudinal studies that examine changes in consumer behavior over time would provide a more comprehensive picture of the long-term impact of the COVID-19 epidemic on Millennials' online buying habits. This might include conducting follow-up surveys or interviews on a regular basis to capture emerging trends and patterns in consumer behavior following the epidemic.

Qualitative Exploration: In-depth qualitative study on Millennials' underlying motives and views of online purchasing might give better insights into the psychological aspects that influence consumer behavior. This might include conducting focus groups or ethnographic research to gain a better understanding of the emotional and psychological motivations of Millennials' online buying preferences.

By addressing these limitations and incorporating the recommended strategies into future research endeavors, businesses and researchers can gain a better understanding of the complex interplay between psychological factors and online consumer behavior, resulting in more effective digital marketing strategies and business decisions.

Overall, this study adds to our understanding of the intricate interplay of psychological characteristics and online consumer behavior, providing useful insights for marketers, politicians, and researchers. However, it is critical to understand the study's limitations, which include sample size limits and potential biases in self-reported data. Future study should seek to solve these constraints and delve deeper into the intricacies of customer behavior in the digital era.

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List of Abbreviations

CLT	The Cognitive Load Theory
COVID-19	Coronavirus Disease 2019
COV	COVID-19
DASS-21	Depression, Anxiety, Stress Survey
EM	The Economic Model
PMT	Protection Motivation Theory
SARS	Severe acute respiratory syndrome
SOR	Stimulus-organism-response
S-O-R	Stimulus-Organism-Response Framework
TPB	The Theory of Planned Behavior
WHO	The World Health Organization