

The impact of external factors on consumer behavior in the coronavirus era

أثر العوامل الخارجية على سلوك المستهلك في عصر فيروس كورونا

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It is widely acknowledged that the COVID-19 pandemic has fundamentally changed the world, People live differently, buy differently, and think differently as well. Consumers around the world see products and brands from a new perspective. In just a matter of weeks, the corona virus has deeply transformed consumer behavior. Research to date indicates that the new habits that are forming now will certainly last beyond this crisis, and will probably permanently impact our behaviors. No denies that the COVID-19 pandemic has destabilized the world, and it is for this reason that it was deemed appropriate to question the consumer behavior through the following question: How will the consumer behavior change during this pandemic?

Keywords: Pandemic; Consumer's behavior; External factors; Change ;Impact**JEL Classification Codes:** M30, M31, M39**ملخص:**

ان جائحة *COVID-19* قد غيرت العالم بشكل جذري ، حيث يعيش الناس بشكل مختلف ، ويشترون بشكل مختلف ، ويفكرون بشكل مختلف أيضاً. يرى المستهلكون حول العالم المنتجات والعلامات التجارية من منظور جديد. في غضون أسابيع فقط ، غير فيروس كورونا سلوك المستهلك بعمق. تشير الأبحاث التي أجريت حتى الآن إلى أن العادات الجديدة التي تتشكل الآن ستستمر بالتأكيد إلى ما بعد هذه الأزمة ، ومن المحتمل أن تؤثر بشكل دائم على سلوكياتنا. لا ينكر أن جائحة *COVID-19* قد زعزع استقرار العالم ، ولهذا السبب كان من المناسب التشكيك في سلوك المستهلك من

خلال السؤال التالي: كيف تغير سلوك المستهلك خلال هذه الجائحة؟

كلمات مفتاحية: جائحة؛ سلوك المستهلك عوامل خارجية؛ التغيير ، الأثر

تصنيفات JEL : M30, M31, M39

INTRODUCTION:

Following the arrival of Covid-19 in Algeria, the government announced, on March 12, 2020, the beginning of confinement for all the weeks to come. In just a few weeks, the health crisis shook the daily lives of Algerians, and therefore had a considerable impact on their purchasing behavior and their consumption habits.

Indeed, many Algerians experienced major upheavals in their lifestyle during this period of confinement: change in working time (home work or partial or even total inactivity), no school for children, closure of shops and large centers, shutdown of cafes and mosques, etc. These changes pushed some Algerian consumers towards new consumption alternatives.

Algeria, like many other countries, has been severely affected by the coronavirus (COVID-19). Consumers started stocking up on food and other essentials, and tried to stay as far as possible from crowded places.

The COVID-19 pandemic has engendered a health and economic crisis that has a lasting impact on the attitudes, behaviors and purchasing habits of consumers. What matters most in studying consumer behavior is the rationale behind the decisions made and the changes in habits. This work attempts to study and analyze the fundamental variables that can affect and explain this behavior. For this, two types of variables should be considered: external factors and internal factors. The present article focuses primarily on the external factors.

1- External influences:

It is widely acknowledged that not every individual lives in a closed world. His purchasing behavior can be influenced by two external factors that may influence his consumption activities; these are the social influences and situational influences.

1-1 Social influences:

Social influences represent an area that is close to that of individual influences. Every individual interacts with the people living around him; he acquires his consumption habits in his family and in the different groups to which he belongs. He evolves in a given social class, and develops one or more styles of life in the society to which he belongs. Society is defined by the French dictionary *le Petit Robert* as "*A group of people possessing lasting and organized interrelationships that are generally institutionalized and guaranteed*".

Today, consumers are highly concerned about the repercussions of COVID-19 on the health aspect as well as on the economic aspect.

All over the world, people are afraid and are struggling to adjust to the new normal. Fear is growing and people think about what this health crisis may mean to them, and to their family, friends and society in general.

1-2 Direct social factors:

This first set of factors mainly focuses on the interpersonal relationships; it plays an important role in purchasing behavior. These factors are associated with family and social groups.

1-2-1 Social groups

In his daily life, the individual is influenced by the many groups he belongs to, because these groups partly determine the behavior and attitudes of each of their members.

The group is generally defined as "*A collection of people who have in common some affinities, interpersonal relationships and behaviors*".

However, a number of distinctions can be mentioned. The most common ones are based on physical attendance or mental distance (Michon Christian et al., 2006,p.69)

Primary groups and secondary groups

Primary groups are the groups in which all individuals know each other. These groups can be formal (family, school class, football team, etc.) or informal (friends), as opposed to secondary groups where a member of the group does not know all the other members personally (political party, large association, and other).

Home groups and reference groups

The home group is a group that exerts some kind of social pressure on each of its members, while the reference group is the one to which everyone wishes to belong. This group has standards and values. It can even be used as a role model, or simply adopt its characteristics when the individual has a conflict with his home group.

1-2-2 Family:

No one denies that a consumer is influenced by his family from his early age. This primary group is very influential because it instills in the individual his first real learning and can even condition his future learning. Nowadays, consumers travel less, or even no longer travel, and tend to buy fewer things. They spend a lot more time at home; some of them are looking for work. They communicate with their family and friends through social networks; they have time to do a lot of things at home.

1-3 Indirect social factors:

The decisions made by a consumer are deeply influenced by his culture, his socio-cultural affiliations as well as by the class he belongs to.

1-3-1 Culture:

Culture is generally viewed as the backbone and soul of every society. In this context, Linton R. (1963) defines culture as: "*The most common and persistent set of learned and mostly unconscious physical and psychological behaviors. The results of these behaviors are shared and transmitted by the members of a given society*". This complex whole encompasses knowledge, beliefs, art, norms, values, morals, customs and traditions, and other elements that society instills in its members. Each society has its own unique elements that distinguish it from other societies.

It is worth noting that culture has a rich and complex dimension. It is at the same time global, meaningful, shared, normative, unconscious, dynamic and evolutionary. It performs many functions that can be vital, symbolic, integrative, communicative, identity building, and problem solving.

Cultures differ from one country to another; they are of extreme importance in international trade (mainly international marketing), and therefore any marketing program must take into account these cultural differences which must be identified and evaluated by the company.

Language characterizes a society. It is central to social interaction in every society. Language is of great importance in transmitting advertising messages and selling. Moreover, gestures, opinions, attitudes and personal objects are also other specific features of a society.

1-3-2 Subcultures:

It was revealed that much of an individual's behavior is conditioned by the culture of the society to which he belongs; it is the individual's social heritage. In addition, within the same

society characterized by a dominant culture, it is possible to distinguish subcultures associated with different cultural groups.

Subculture can be defined as "*A segment of the same society that identifies itself, or is identified by others, with a distinct group having peculiar behaviors and possessing cultural characteristics (norms, values, symbols, ...) that are different from those of the dominant group or from those of the legitimate descendants of the founders of the predominant nation*" (D'Astous Alain et al., 2006,p.6).

Subcultures can be presented under several dimensions. Some relate to the ethnic origin, whether racial, national or religious, while others are associated with age (elderly) and income (poor groups), or even with a technological phenomenon (Internet users).

2-Social class:

The history of mankind is associated stratification or social class phenomena which characterize the lives of societies; this is still true, until today.

In marketing, the social class concept is generally approached in a way that is intimately linked to consumption. The term social class implies the existence of a hierarchy, which means that some people may have a higher status and others possess a lower status. In theory, the idea of social class fits well with the concept of segmentation.

In this era of the coronavirus pandemic, consumer priorities have been particularly focused on the most basic needs, namely basic food and hygiene products. Consumers have become more aware of what they should buy. They are trying to limit food waste, especially as this COVID 19 pandemic has crippled a large number of employees. Some companies have closed their doors and pushed their workers to work from home (teleworking); others laid off their employees. A survey conducted by the Ministry of Labor indicated that more than a quarter of a million workers have seen their activities curtailed.

2-1 Social stratification criteria:

Three main types of criteria, i.e. subjective criteria, reputation criteria and objective criteria, are generally used to determine the position of a person in a given social structure.

The first type of criteria refers to the individual's own perception of the prestige and status he enjoys in a society.

The second classification criterion refers to the perception of others in measuring a person's belonging to a given social class.

These two criteria call on subjective elements that could significantly explain the behavior of individuals, but their application poses some problems linked to validity and measurement.

Most consumer behavior specialists recommend a third more objective social classification approach. It is mainly based on criteria such as income, education level, professional occupation, residence, or a combination of several of these criteria. Thus, society can be divided into several classes:

The dominant upper class that brings together categories which have either a hierarchical authority (executives), a cultural authority (teachers), or an economic power (business manager).

The middle class that comprises all intermediate professions in business and public service, as well as craftsmen, traders and employees.

The popular class that is made up of farmers and workers.

The economically weak class that mainly includes laborers and agricultural workers, or unemployed and retirees with small pension benefits.

Consequently, each individual belongs to a social class. This fact is directly linked to a complex set of elements that influence the mode of consumption of each person. Each social class exhibits a specific type of behavior and is characterized by a number of purchasing decisions deemed to be consistent with its social position. It should be noted that each individual is tempted to base his decisions on the most representative indicators within his class (housing, car, leisure, etc.); he also tries to imitate the decisions of people belonging to the class located hierarchically just above.

It is widely admitted that communication makes intensive use of this social behavior in order to enhance the image of new products that are aimed at a specific segment of the population. However, the price and design of an object are intended for a slightly lower social category.

The results of an investigation, which was conducted on the concrete impact of the coronavirus pandemic on the social situation and the economy of Algeria, revealed alarming situations. In this regard, the Algerian national daily *Reporters* indicated that, during part or all of the confinement period, 333 932 employees saw their professional activities decrease, and 52 367 of them witnessed the temporary closure of their workplaces. In addition, only 4% of all enterprises, employing 16 609 workers, were able to continue their activities. During that time, as many as 200 000 workers lost their income altogether, and 180 000 of them did not receive their wages on time.

Furthermore, the National Employment Agency (Agence Nationale de l'Emploi - ANEM) reported a marked decline in the employment sector. Job seekers were only 8 579 in April 2020 compared to 67 672 in January of the same year. Job placements that the National Employment Agency made dropped from 25 969 in January to as low as 5 000 placements in April.

3- Situational influences:

Belk (1974) defined the situation as "*A set of factors associated with a given time and place, which without having their origin in the stable characteristics of people or products, can exert a clear influence on their behavior*".

It is widely acknowledged that consumer behavior is influenced by the situations in which he finds himself when making his purchasing decisions. Moreover, the shopping environment and the product category are factors that can influence a buying situation.

3-1 The shopping environment:

The consumer in a buying situation can be influenced by several variables such as:

The physical environment (atmosphere, music, temperature, point-of-sale displays).

The social environment (accompanying people, crowd, salespeople).

The moment (morning, evening, weekdays, weekend).

Time that the consumer can spend on shopping

Personal dispositions, such as feeling happy or sad, tired or in a good shape, starving or satiated, can also have an impact on shopping activities as well as on the choices made during these activities.

Marketing is a technique that mainly aims to concentrate on purchasing situations in order to influence the consumer's behavior. This approach focuses primarily on:

The commercial environment, design and merchandising,

Training the sales force and efficiently managing the interactions between customers within the different departments,

Adapting communication campaigns to the most favorable time of the day or the year,
Adapting the offer to the consumer's purchasing situation (rapid and automated purchasing, interaction with sellers, low-cost distributors, multi-service distributors, ...).

3-2 Product category

It is widely admitted that the consumer does not spend the same time or the same energy buying expensive and cheap products. It should be noted that some low priced products can sometimes take a long time to think about if the purchase presents some risk. One example is when purchasing skincare products or items for children.

In addition, the consumer does not adopt the same approach when making a purchase decision.

The characteristics linked to the product

Certain characteristics of the product can encourage the consumer to make a purchase decision. One may mention the perceived risk and product symbolism in purchase decisions.

4- The perceived risk:

Most purchases are made in a context of uncertainty, and therefore involve risk. The level of this risk can be assessed by the gap between the degree of expectation before the decision and the level of satisfaction after. Risk is perceived when the individual can predict the likelihood of a gap between one and the other. The perceived risk theory, which is mainly attributed to Bauer (1960)⁸¹, has mainly focused on determining how that risk arises and how the consumer faces it. Studies by Jacoby and Kaplan (1972) revealed seven types of risks:

Financial risk or risk of losing money.

Functional risk, which relates to the expected performance of a product or service.

The psychological risk where the buyer asks himself the question: *Does this product suit the image I have of myself?*

The social risk, particularly with respect to the so-called "social status" products. The buyer asks himself the question: *What will people say about me?*

The physical risk because certain products can be associated with a possibility of danger (cars, food, certain household equipment, etc.).

The risk of wasting time choosing the wrong product.

The risk of lost profits where the buyer asks himself the question: *Wouldn't I be better off buying something else?*

Perception of risk varies from one individual to another and from one situation to another. Thus, for some people, the perceived risk during the acquisition of a car is higher because the amount of money spent is relatively important when compared with the salary received. However, for others, much better off, this purchase is not so important. The consumer is then reassured by the good image of the brand or by the reseller, and also by the additional guarantees offered to him.

During the Covid 19 pandemic, several sectors like transport, tourism, catering, hotels, crafts, energy, and non agri-food sectors such as the pharmaceutical and parapharmaceutical industries, have faced enormous risks. For example, it was revealed that the loss of public transport turnover amounted to 19.5 billion dinars.

According to the same source, which reported data from the Ministry of Labor and Social Security, the impact of Covid-19 affected 134 000 taxi drivers, 6 883 driving schools, 6 224 driver's license examiners, and 4 421 control officers. As for hotels and travel agencies, they experienced a shortfall of 81.9 billion dinars. With regard to artisans, they saw their activities reduced by 80 to 100%, in addition to the decrease in the number of customers by about 70 to 100%. This generated a shortfall of 36.21 billion dinars.

With regard to the energy sector, the loss of revenue of the Company of Sonatrach was estimated at 4.6 billion dollars in comparison with the same period of the year 2019.

5- The product symbolism:

In addition to the functions they perform, the products also carry symbols. For example, a car certainly allows you to move around, but it is also a symbol of power, wealth, power, and even the affirmation of a distinctive identity (Like possessing the Vel Satis Renault car for example).

In this context, Barthes and Baudrillard tried to define the symbolic values of products. Other researchers like R.W. Belk, M. Allendorf, and J.F. Sherry (1989) tried to look at the sacred or secular side of products. In addition, when products have common symbols, the consumer gives a particular symbolism to the goods he owns or wishes to acquire.

6- Empirical study:

The present study aims to analyze the purchasing behavior of Algerian consumers during the COVID-19 crisis. This work was particularly interested in the external factors of consumers, namely social influences, direct social factors, indirect social factors, social class, and situational influences. The review of literature on the factors that can influence the purchasing behavior of consumers made it possible to put forward the following hypotheses:

H1: *Social influences have an effect on the consumer's purchasing behavior.*

H2: *Direct social factors have an effect on the consumer's purchasing behavior.*

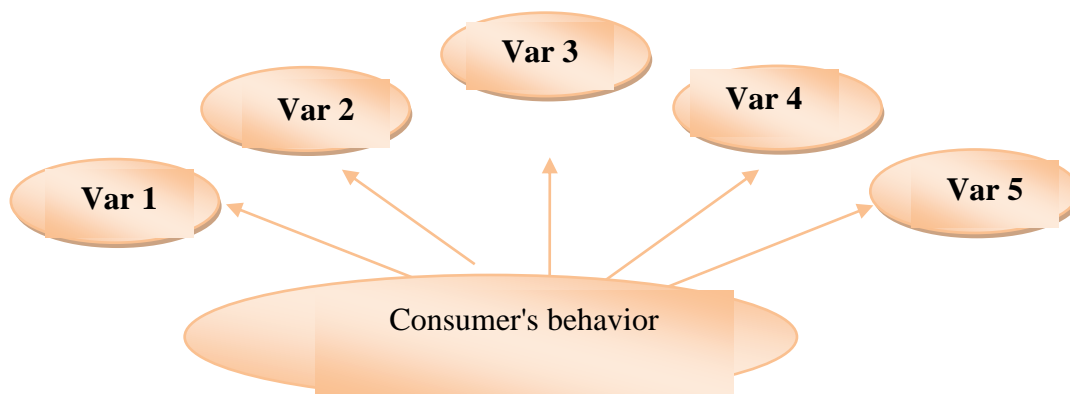
H3: *Indirect social factors have an effect on the consumer's purchasing behavior.*

H4: *Social class has an effect on the consumer's purchasing behavior.*

H5: *Situational factors have an effect on the consumer's purchasing behavior.*

All of these hypotheses allowed developing the following research model.

Figure (1): Presentation of the research model



Source: Model developed by author

The survey was carried out on a convenience sample made up of 300 Algerian respondents of various profiles working in a hypermarket.

An exploratory analysis was performed on 5 variables and 50 items:

Var1: Social influences

Var2: Direct social factors

Var3: Indirect social factors

Var4: Social class

Var5: Situational factors

The results of the principal component analysis (PCA) of consumer behavior indicated that the behavioral changes induced by the COVID-19 pandemic may push consumers to adopt new consumption patterns. It should be noted that the need for millions of people to be self-quarantined, due to the epidemic, has led to drastic changes in the way a large number of individuals have behaved over the past several weeks. Being locked away at home for such a long time has left an unforgettable change.

The covariances between items were investigated in order to calculate the Cronbach's alpha coefficient. In this regard, D. Laveault (1993) points out that "*The higher the covariances between all the items taken in pairs, the more these items are homogeneous and measure the same thing*". The results obtained are quite interesting. It should be recalled that Cronbach's coefficient guarantees the reliability (internal consistency) of a test, but is not sufficient to validate a model. Therefore, it was considered more judicious to calculate the KMO which represents a statistically acceptable factorial solution. It also illustrates the relationships existing between the different variables. Note that the Bartlett's sphericity test is almost always significant.

The following table summarizes all the reliability indices.

Table (1): The reliability indices

Variables	K M O	Cron bach α	ANOVA		Bartlett's sphericity	Avge	Cov	VT
			F	Sig				
Var1	0.954	0.864	8.531	0.000	0.000	4.085	.9495	82.009
Var2	0.917	0.907	63.861			3.628	1.3033	77.140
Var3	0.741	0.898	81.435			3.673	1.0950	69.390
Var4	0.821	0.856	14.798			3.552	1.2217	74.205
Var5	0.658	0.784	16.75	0.000	0.000	3.4000	1.0201	60.20

Source: Prepared by the author using the software Statistica (N = 300).

Table 2: Absolute adjustment indices

Absolute adjustment indices	
Indices	Values
Chi_2	1486.88
Degree of freedom (DF)	372
Level p	0000
<i>Standardized root mean square residual</i>	0.140
(GFI). Joreskog	0.681
(AGFI). Joreskog	0.577
Population Noncentrality Parameter	7.680
McDonald's Noncentrality Index	0.020
Root mean square error of approximation (<i>RMSEA- Steiger & Lind</i>)	0.165
Population Gamma index	0.735
<i>Adjusted Population Gamma Index</i>	0.676
<i>Incremental fit indices</i>	
Bentler-Bonett Normed Fit Index	0.752
Bentler-Bonett Non-Normed Fit Index	0.785
Bentler Comparative Fit Index	0.857
Bollen's Rho	0.785
Bollen's Delta	0.856
<i>Parsimony-based Fit Indices</i>	
James-Mulaik-Brett Parsimony-based Fit Index	0.645
Ch2 /DF	5.673

Source: Prepared by the author using the software Statistica (N = 300).

The adjustment indices are generally good. In addition, the calculated values and those observed are practically close to each other. This confirms that the constructs studied using the measurement and structural models gave satisfactory results.

Table 3: Equations of the structural model

Manifest variables	Equation $V_{con_i} = \lambda_i \cdot V_{CCON} + E_i$	T > 1.96	P < 0.05
*Var1 = $\beta_1 \text{comp} + E_1 +$	*Var1 = 0.701comp + 0.081	23.236	0.000
*Var2 = $\beta_2 \text{comp} + E_2$	*Var2 = 0.801comp + 0.165	43.770	
*Var3 = $\beta_3 \text{comp} + E_3$	*Var3 = 0.878comp + 0.067	52.571	
*Var4 = $\beta_4 \text{comp} + E_4$	*Var4 = 0.678comp + 0.165	50.663	
*Var5 = $\beta_5 \text{comp} + E_5$	*Var5 = 0.647comp + 0.065	54.266	

Source: Prepared by the author using the software Statistica (N = 300)

In studying the consumer's behavior, what matters most is to determine the reasons for their purchasing decisions. Depending on the study design, five variables can affect the consumer's behavior. During this pandemic, the pace of life has slowed down, the need for new life routines has emerged, and the change in behavior has occurred during a process that depends on several variables.

It is worth emphasizing that consumers go through several behavioral steps that are closely linked to their awareness about the spread of the coronavirus. Based on responses from consumers, it was concluded that:

1. There is a clear increase in purchases related to health and well-being (bottles of hydroalcoholic gel, bibs)
2. There is an increase in purchases related to long-life products
3. There is an increase in purchases related to basic necessities and hygiene products
4. There is a decrease of in-store shopping.
5. Consumers are spending much less money due to reduced personal revenues.
6. Most consumers remain confined.

It was also noted that the individual is continually influenced by his environment.

Direct social influences come from different family members.

Indirect social influences can come from any contact the consumer has with people other than family members. Social influences can, for example, come from professional encounters, while religious influences may come from his neighborhood, school, etc.

Economic influences, sometimes referred to as income influences, are the constraints that most consumers face daily due to their financial situation.

Cultural influences are the set of beliefs and the sanctions that are eventually associated with these beliefs that develop in the social system in which the consumer lives.

Situational influences have an impact on every decision made by the consumer who does not have a strictly sequential behavior. He indeed does not primarily have an attitude or perception of a product that is followed by the influence of external factors. In fact, it is the environment that immediately influences the initial decisions of the consumer.

Conclusion:

The present study allowed showing that consumer behavior depends on a number of factors. Each of these factors has some characteristics that can affect the consumer's behavior.

Therefore, one may say that the coronavirus pandemic has brought about dramatic changes in the behavior of consumers in general, and particularly in their purchasing habits.

Furthermore, it is highly important to understand the consumer in order to determine the reasons that make him change his buying behavior. This study was also an attempt to explain the consumer's behavior while taking into account some external variables.

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