
CONSUMER PRACTICES AT THE JUNCTION OF THE DIGITAL ERA AND COVID 19 IN ALI MENDJELI NEW TOWN, CONSTANTINE, ALGERIA

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Abstract. Nowadays, beyond the spatial practices operated by inhabitants of Ali Mendjeli new town (Constantine) to build a new urbanity in a new framework, we note that the mode of consumption, consequence of globalization, also participates in this quest for identity formation. The health crisis of the COVID-19 pandemic that the whole world experienced in the last two years has changed the parameters of consumption practices among individuals. However, in this difficult situation, the inhabitants and commercial operators of the new town have shown their ability to adapt their consumption patterns and services. This study will attempt to identify the changes in consumption practices caused by COVID-19 and to determine adaptation capacities by mobilizing ICT-based means. The data show that most respondents are a young population predisposed to digital technology. Therefore, inhabitants have come to terms with home delivery and online shopping, which have grown significantly and have proven to be a viable purchasing option during this crisis. In this study, we projected the consumption practices and behaviours of inhabitants of Ali Mendjeli new town during the crisis of COVID-19 on Maslow's theory of hierarchy of needs. The results constitute evidence that this theory has been proven in reality. The management of the pandemic COVID-19 has found a facilitating context in Ali Mendjeli new town that has allowed it to adapt with the effects of this crisis.

Keywords: *Ali Mendjeli new town, consumer practices, COVID-19, Information and communication technologies (ICT).*

JEL Classification: M31, G20, L81

INTRODUCTION

Go shopping, chatting with friends about the dishes of a new restaurant, get information about a product or service on the internet before buying it, order a product or a service remotely, shopping mainly in supermarkets or in open markets... are all practices that involve acts of consumption. According to practice theory, shopping is viewed as a series of connected doings and sayings that are intended to buy the items and services needed to carry out other practices (Fuentes et al., 2021).

Aldaas (2021) indicates that the emergence of information and communication technologies (ICT) has had a considerable impact on the life and activities of

individuals. This emergence, characterised by the global proliferation of the internet, has led to the birth of e-commerce, which has grown rapidly due to the internet characteristics. The growth of e-commerce has created new financial needs and thus the electronic payment system has appeared which is quickly replacing a cash payment system.

On 11 March 2020, the World Health Organization (WHO) proclaimed the COVID-19 virus a global pandemic. African countries, like the rest of the world, have been dealing with the COVID-19 epidemic. The continent has implemented a variety of strategies to slow the spread of the disease (Shobande & Ogbeifun, 2020). Algeria has the largest territorial expansion in Africa and is one of the most populous nations in North Africa. Algeria, which borders southern Europe, is thought to be prone to the spread of SARS-new, CoV-2's worrying strains (Aouissi, 2021). This worldwide health catastrophe has resulted in significant changes on a variety of levels, including social, economic, health, educational, and other factors, prompting countries to take extraordinary health measures to halt the spread of the pandemic and better control the region health status. Due to the availability of favourable conditions for the spread of the pandemic, such as population concentration, mobility, socio-economic and urban movements and dynamics, cities are considered hotspots for the virus. In this situation of crisis, three main reasons were given as reported by Gordon-Wilson (2022) for allowing people to leave the house: daily exercise, needed travel, and consumption.

World Health Organization (WHO) and public health authorities around the world are taking measures to contain the COVID-19 epidemic. To control and manage the virus spread, strict preventive measures have been implemented around the world. Responding to the epidemic has relied heavily on social distance and preventive strategies. As soon as the first cases of COVID-19 were discovered in Algeria, the government imposed stringent restrictions on people's movement both within and between cities, limiting travel by public transportation and banning meetings and gatherings of individuals (family, professional, educational, etc.).

Other alternative plans, such as technical solutions that adapt to this circumstance, using labour, distant learning, and electronic payment, are being gradually stimulated. In this setting, civil society and socioeconomic actors have developed new practices, which clearly proves that society is capable of responding to changes in the face of pressing dangers and in the event of a crisis, according to the actors. The most important of these trends are emerging in the areas of trade, e-commerce resurgence, home delivery, and remote medical consultations. Information and communication technology (ICT) has demonstrated a substantial role in reducing the consequences and difficulties brought on by COVID-19 during the entire tragedy (Sharma et al.,2021).

Technology has become more influential in the daily lives of consumers and businesses. Furthermore, the consumer has behavioural instability in shopping spaces when exposed to the atmosphere factors of the space, these factors often have a positive or negative impact on their buying practices. Since we are living in the era of ICT, the consumer is faced with new factors that affect their buying behaviour in addition to the previous factors. On the other hand, in the last two years of the emergence of the COVID-19 pandemic, consumer practices were

exposed to several changes. From this perspective, the impact of COVID-19 on the consumer behaviours and practices in the light of information and communication technologies will be studied in the new town of Ali Mendjeli.

The aim of this study is to identify consumer practices based on new services made possible by ICT before and during COVID-19, as well as determine the nature of products and their exposure, the ways to order them and the service modes.

Ali Mendjeli new town is three decades old. It is building its identity in certain autonomy from the mother city. Furthermore, it is in a more youthful mood (two universities), the majority of residents are young people who prefer to live here, because rents or home ownership are affordable. It is a hyper-commercial city, with services available to suit this young population, where couples are often “busy”. In addition, for working couples, these services correspond to situations resulting from social change, globalization and the emergence of ICT.

1. LITERATURE REVIEW

With the introduction of ICT, life throughout the world has suffered irrefutable upheaval. This digital cloud that surrounds the earth sphere has impacted different aspects of the city (infrastructure, buildings, economy, environment, etc.). Every part of business has been impacted by the usage of ICT and technology (Ngasa, 2020). More importantly, the world is growing into a global community as technologies that aid electronic exchange become more prominent in our daily lives (Uwandu et al., 2013). The internet and mobile technology, the two most dynamic technological forces in modern information and communications technology are converging into one ubiquitous mobile internet service, which will change our way of both doing business and dealing with our daily routine activities. Moreover, the development of ICT, which became apparent in the 1990s with the dissemination of mobile phones, personal computers and the Internet, continued its fast pace during the first two decades of the 21st century aided by development of the Web 2.0, social media and smartphones (e Silva et al., 2017).

Social media can be defined as a group of internet-based applications that are built on the ideological and technological foundations of the Web and that allow the creation and exchange of user-generated content. Social media is accessible and enabled by scalable communication techniques. This new type of communication that has emerged and crystallized in the internet environment and multimedia technology, plays a leading role in the process of collecting and analysing news and information and exchanging them among users, which has imposed itself to the world as an essential development tool that has allowed the world to communicate and exchange information in any place and at any time. The internet has affected all fields, including the commercial one. For small and medium enterprises, social media has become an essential tool for building strong relationships with clients (Chatterjee et al., 2021). To encourage future in-person visits, some retailers offer virtual tours of their stores (Pantano et al., 2021).

A virtual platform for social interaction has been transformed into an online social commerce platform due to the phenomenal growth of social networking sites (SNS), giving many online retailers new ways to connect with customers and run

business (Hyun et al., 2022). Social media in particular has altered how consumers interact with and react toward brands, as well as the connection between the two (Antunes, 2022). It has imposed on companies and institutions to create special sites through which all are posted on their commercial activities and their different products and services in order to conquer customers, to find marketing opportunities for the sale of different products, services and influence the decision making of the purchase. On this basis, social networks have had a significant impact on different age groups, especially the young population.

Understanding the psychology of the consumer entails looking at both their attitudes and actions in a purchase or repurchase situation. Many theories explain the emergence of physiological needs (hunger, thirst, copulation, sleep, etc.) and the behaviours associated with them, such as Maslow (1943), McClelland (1987), Glasser (1999) and others.

Maslow's Hierarchy of Needs model states that the motivations of human beings are born in needs to be satisfied hierarchically in five levels. This theory contends that internal needs serve as people's primary motivators rather than external factors (Bozyigit, 2021). Since the postulation of Abraham Maslow's theory of human motivation, the theory has been celebrated as the determining factor to account for and explain human wants and needs (Mawere et al., 2016).



Fig. 1. Maslow's hierarchy of needs (McLeod, 2007).

Maslow divided human needs into five basic needs through a hierarchy, his base includes the basic needs that a person cannot survive without such as food, water and sleep, and if they are not met, it is difficult to reach the higher needs in the hierarchy, foremost of which is the need for self-actualisation. Security needs include the desire for safety and security, the desire for steady employment, health care, safe neighbourhoods, and shelter from the environment. In the third place, social needs include needs for belonging, love, and affection. Esteem needs include the need for things that reflect on self-esteem, personal worth, social recognition, and accomplishment and, finally, self-actualising needs assume the highest level of

Maslow's hierarchy of needs. Self-actualising people are self-aware, concerned with personal growth, less concerned with the opinions of others, and interested in fulfilling their potential (Munyaradzi et al., 2016).

There are many and various human needs. The physiological needs at the base of the pyramid are considered basic needs without which a person cannot continue. While the rest of the needs at the other higher levels of Maslow's pyramid are considered secondary, and a person can continue without satisfying these needs. Unsatisfied needs are the motivation for human behaviour (Maslow, 1943).

McClelland's theory of needs is known by various names: the three needs theory, acquired/learned needs, and motivational needs. It is a model that attempts to explain how the need for power, success and affiliation affect motivation in a business context.



Fig. 2. McClelland's theory of needs (Ques10, 2021).

To live is to be propelled. At the heart of the human being, inscribed in their genes, lies a set of fundamental needs to be continually satisfied. One of these is constantly present: the need to breathe, to stay alive. Whenever we run out of air, everything else becomes irrelevant. According to Glasser (1999), human beings are subject to the impulse of five major needs that constitute the forces driving them to act: survival, belonging, power, freedom and pleasure.



Fig. 3. Glasser's choice theory (<https://www.slideserve.com>, 2023).

In the past, consumers focused primarily on product features or attributes to choose a purchasing location. Today, consumers require additional benefits when selecting outlets for their purchases (Hussain & Ali, 2015). The atmosphere of a store has a significant impact on a customer's purchasing and consumption decisions. The mood factor is defined as an element that contributes to the atmosphere of a place. It is a marketing tool that was developed in the 1970s. It can be a smell, a decorative, musical or odorous element, which will contribute to the well-being of the people who frequent a place. According to Putra et al. (2019), store atmosphere is an environmental design such as visual communication, lighting, colour, music, and aroma to simulate customer perceptual and emotional responses and ultimately affect their buying behaviour. (Almeida Santos & De Lamonica Freire, 2013) show that marketers use music as a motivator in the purchase decision of consumers shopping in different environments due to easy way of manipulation of the music and the fact that music is not offensive to the consumer. Also, music, as an environmental factor triggers feelings and internal responses, which lead to a certain buying behaviour. On the other hand, sales promotions are used by many companies to introduce new products, increase sales, or to influence the consumer's decision-making process (Montaner & Pina, 2008). On the other hand, the price plays a significant role in the decision to buy, especially when it comes to recurring purchases. This influences the choices of which brand, product, and retailer to use (Faith, 2018). However, consumers also appear to gauge a product quality based on its price (Shugan, 1984). Also, the product quality is a critical element in determining purchase intention (Tariq et al., 2013). Since ancient times, people have intentionally scented their environment for either purpose or pleasure (Herz et al., 2022). According to Vlahos (2007), smell is used to promote a brand, market products, or generate a mood. It is used as an ambient factor of an environment (Morrin, 2011).

2. METHODOLOGY

2.1. Context of the Study

The new town of Ali Mendjeli is located on the plateau of Ain El Bey about 15 kilometers in the south of the city center of Constantine (see Figs. 1 and 2). Ali Mendjeli's plan encompasses 1500 hectare. However, the new town currently occupies 2341 hectare, and the surface size of the agglomeration is expected to reach 3357 hectares by 2030.



Fig. 4. Constantine's location in Algeria (<https://gifex.com>, 2023).

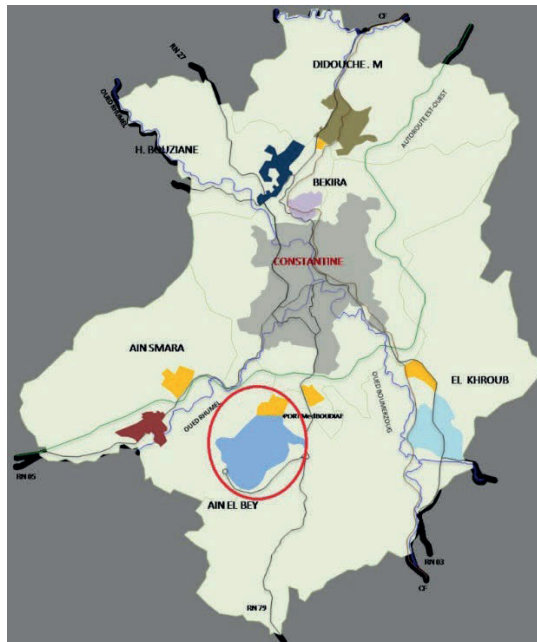


Fig. 5. Ali Mendjeli location in Constantine metropolitan (department of urban planning, architecture and construction of Constantine (DUAC, 2020)).

Table 1. Ali Mendjeli’s Population Estimates (Department of Urban Planning, Architecture and Construction of Constantine (DUAC, 2020))

	Population				2008–2020	
	1987	1998	2008	2020	TAGMA	SM
Ali Mendjeli new town	00	00	50 550	303 295	16.10	14.50

The population of the new town of Ali Mendjeli has grown at a very significant rate of 16.10 %, due to the housing programmes launched in the town, which cover the needs of the Constantine inter-communal grouping, and also due to its central location with the 3 towns of Constantine, El Khroub and Ain Smara (see Fig. 5), reflecting a very significant influx of people from Constantine to this town, with net migration of 14.50 % over the same period.

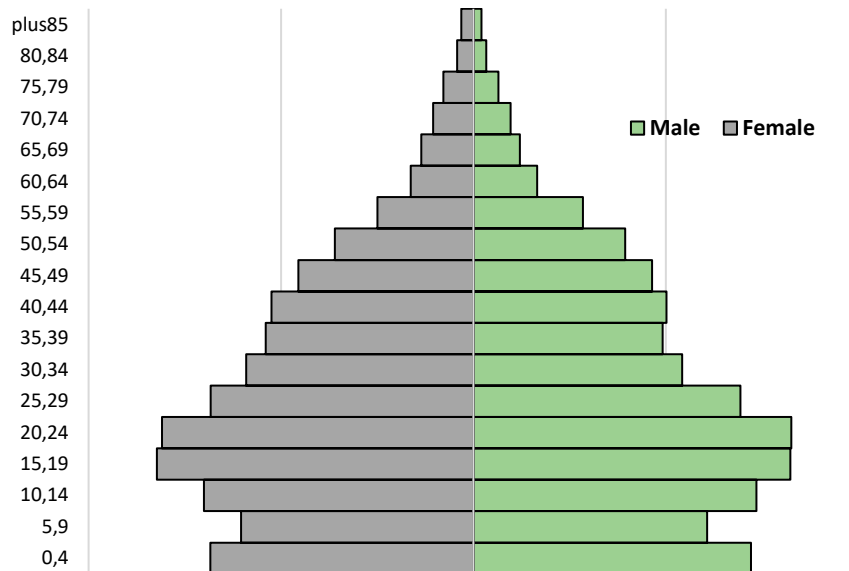


Fig. 6. Population age and sex pyramid of Ali Mendjeli new town (Department of Urban Planning, Architecture and Construction of Constantine (DUAC, 2020)).

However, over 55 % of the population remains young, i.e., 168 209 people over the age of 20, which constitutes a favourable asset for the development and socio-economic and cultural progress of the commune, if this potential is properly taken care of. For the youth population aged 0–19 (113 973 people), the rate is 38 %, while the population aged over 60 represents 7 %, i.e., 21 113 of the commune’s population. The breakdown by gender shows a near-equivalence between the male and female populations, with proportions of 50 % and 50 % respectively.

Table 2. Households with Internet Connections and Consumer Base all products in Ali Mendjeli new town (Telecom Algeria of Constantine, 2020).

Type of product	FTTx	LTE	PSTN	SPECIALISED LINE	VoIP	xDSL	TOTAL
Number of households	2056	5472	25 682	19	2056	20 713	55 998

FTTx: Fibre To The ...

LTE: Long Term Evolution (often used in connection with 4G, the global fourth-generation wireless communications standard)

PSTN: Public Switched Telephone Network

VOIP: Voice over Internet Protocol

xDSL:x Digital Subscriber Line

Table 2 presents the number of households with internet connections in Ali Mendjeli new town. As a general trend, the new town had 55 998 internet subscriptions. In 2020, the new town had 20 713 households with high-speed, i.e., the half of the customers, and 2056 families with ultra-high-speed internet subscriptions on fixed networks. On the other hand, the number of fixed-line telephone subscriptions in Ali Mendjeli was 25 682, and there were 5472 households fixed 4G LTE. Moreover, there were 19 specialised lines in the new town. We can see that in 2020 the company had 2056 VoIP subscribers.

The approach of the current study is based on an empirical study of data acquired using an online self-administered questionnaire. The target population for the survey was the city's population. The survey questionnaire is one of the most widely used data collection tools in a survey strategy. It is used to collect particularly quantitative data. In the digital age, ICT has had an impact on this survey tool, reformulating it as a web questionnaire. These questionnaires were distributed to respondents via the internet. The informants access to the survey via their web browser using a link sent by e-mail and mainly placed on social media. Completed forms are automatically saved on the Google Forms platform, allowing us to consult and evaluate them at any time. In order to do this, we targeted the inhabitants of Ali Mendjeli new town, through social networks (posted the link on some Facebook pages of Ali Mendjeli's neighborhoods, news pages about Ali Mendjeli, groups and pages of universities located in Ali Mendjeli, friends and contacts who live in the new town). Our questionnaire targeted only inhabitants of Ali Mendjeli new town. On the other hand, we projected the results obtained from the survey, on Maslow's theory of needs, since it is the oldest and the most known theory about human needs and motivation among the others.

A total of 155 people who live in Ali Mendjeli new town and are between 18 and 60 years old, responded to the survey, which was conducted using Google Forms. The questionnaire consists of 3 parts:

Part 1: New consumer behaviours with digital technology in the new town of Ali Mendjeli;

Part 2: Consumption practices before the COVID-19 health crisis (in everyday life);

Part 3: Consumption practices during the COVID-19 epidemic.

Therefore, the hypotheses will be formulated as follows:

1. H1: The COVID-19 pandemic has provoked changes in consumption practices, and it has led to a large adoption of ICT by inhabitants of Ali Mendjeli new town.
2. H2: Factors related to the hygiene of the place of purchase and the health of the people (hygiene, smell, quality of products) outweigh others during the pandemic among inhabitants in the new town of Ali Mendjeli.

3. RESULTS

In this section we will present, describe and comment the results. The data collected from this survey were analysed using MS Excel.

The pie chart below represents the distribution of respondents by age group. It is evident from the chart that respondents are mostly young. Respondents in the age group of 18–29 years account for 78 %, followed by respondents in the age group of 30–45 years (19 %), in the age group of 46–60 years (2 %) and the age group of > 60 years (1 %). Younger generations generally are more interested in ICT and they are more driven to use technology.

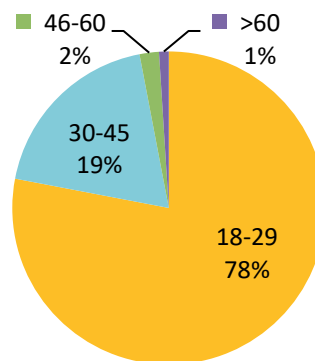


Fig. 7. Distribution of respondents by age group (developed by the authors, 2021).

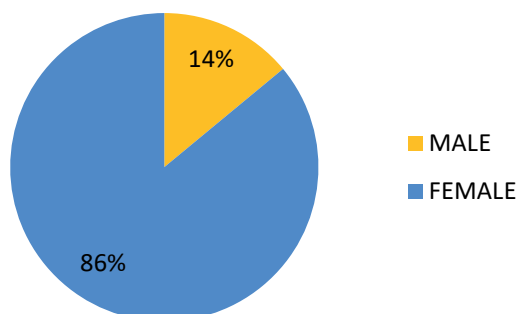


Fig. 8. Distribution of respondents by gender (developed by the authors, 2021).

The pie chart above shows the distribution of respondents by gender. At first glance, it is noticeable that there are more female respondents than the male. According to the responses received, Fig. 8 demonstrates that women made up 86 %, while men accounted for 14 %.

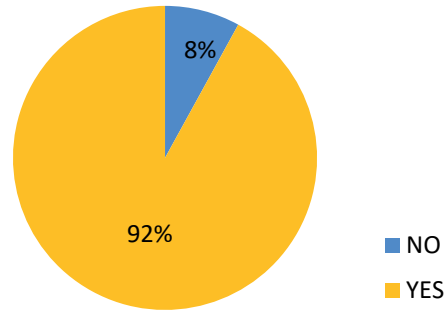


Fig. 9. Conducting online research before purchasing a product or a service (developed by the authors, 2021).

The above pie chart represents the percentage of online research before buying a product or a service among inhabitants of Ali Mendjeli new town. It can be clearly seen that the majority of respondents conduct online research before buying a product or service. In Fig. 9, we can see that 92 % of respondents in the new town confirm that they conduct research on the internet before buying a product which validates the use of ICT in the lifestyle of the inhabitants. While, a small number of respondents (8 %) do not research on the internet before purchasing.

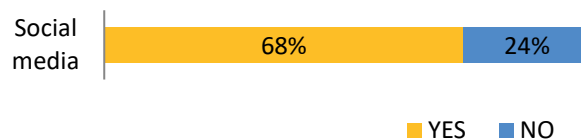


Fig. 10. Influenced by product sales posts on social networks (developed by the authors, 2021).

The provided bar graph illustrates the influence of social networks on consumer buying behaviour in Ali Mendjeli new town. As a general trend, the majority of consumers’ purchasing decisions are influenced by social media. According to Fig. 10, a substantial number of respondents (68 %) are impacted by social networks in their purchasing decisions.

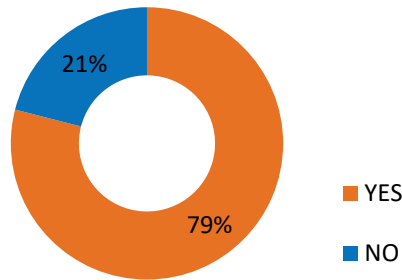


Fig. 11. Requesting a product or a service on the Internet (developed by the authors, 2021).

According to Fig. 11, a majority of respondents (79 %) in Ali Mendjeli use the internet to request products or services, while a minority of respondents (21 %) do not use it for requesting a product/service.

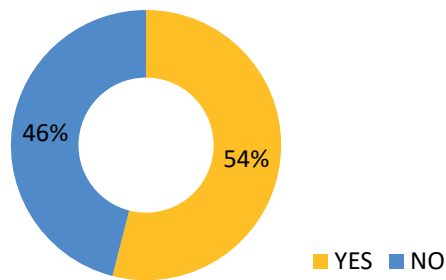


Fig. 12. Paying for a product or a service online (developed by the authors, 2021).

Figure 12 shows the proportion of the online payment in Ali Mendjeli new town before COVID-19. As it is observed, more than half of respondents pay products or services via the internet. More than half (54 %) of respondents pay for services and products via the internet, compared to 46 % of respondents who do not do it.

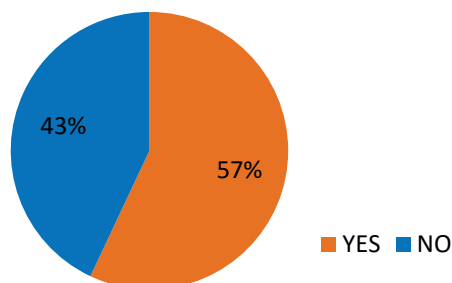


Fig. 13. Using online delivery (developed by the authors, 2021).

Figure 13 shows the data on the use of online car service booking. As a general trend, respondents are familiar with online booking. More than a half of respondents have already booked their car service online. On the other hand, 47 % of the respondents do not use car services with online booking.

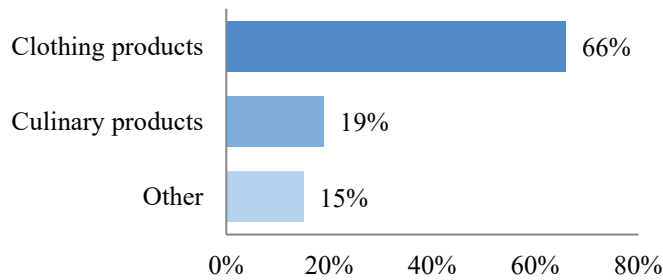


Fig. 14. Nature of the products requested online (developed by the authors, 2021).

Figure 14 shows the nature of products requested online by inhabitants of Ali Mendjeli new town. Overall, it can be seen that clothes were the most popular item requested online. The percentage of fashion products on the web is estimated at 66 % among inhabitants of Ali Mendjeli new town compared to culinary products and other products.

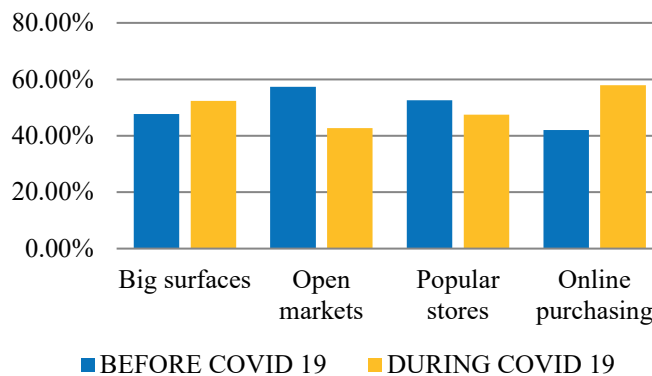


Fig. 15. Shopping location before and during COVID-19 (developed by the authors, 2021).

Figure 15 shows data about shopping location before and during COVID-19. In brief, the chart shows that the use of the online purchasing as a means of shopping significantly increased during the period of COVID-19. In detail, before COVID-19 the online purchasing was used least as a way of purchasing with 42 % of the population using this method. Therefore, online purchasing grew strongly in Ali Mendjeli new town to finally reach about 58 % of the population during COVID-19. During this remarkable time period, we can see that the popularity of open markets dropped from 57 % to 42 %. The use of popular stores also fell from about 52 % before COVID-19 to 47 % during the crisis.

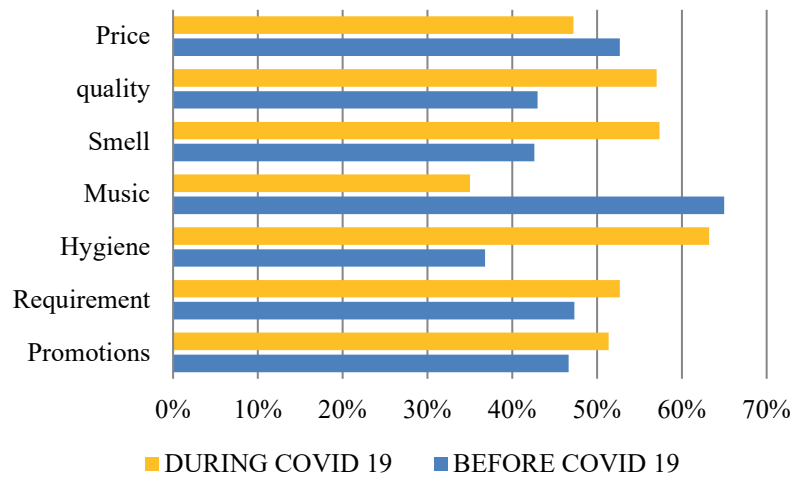


Fig. 16. Motivating factors to purchase before and during COVID-19 (developed by the authors, 2021).

Figure 16 provides information about factors that motivated respondents to buy products in Ali Mendjeli new town before and during COVID-19. Overall, hygiene showed an upward trend throughout this period, identical to the smell which moved upward during the crisis. The music experienced a downward trend. On the other hand, requirement and promotions increased slightly during COVID-19. It should be noted that the price diminished from 53 % before COVID-19 to 47 % during this crisis and inhabitants of Ali Mendjeli new town were ready to pay more in order to fulfil their needs.

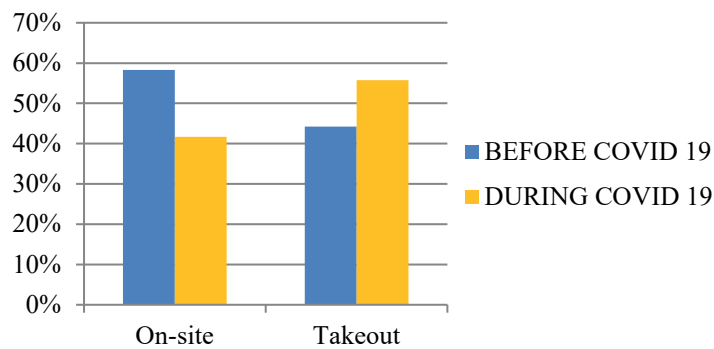


Fig. 17. On-site food service and takeout food service before and during COVID-19 (developed by the authors, 2021).

Figure 17 compares proportion of onsite food service and takeout food service before and during COVID-19. As a general trend, takeout food service increased considerably during the crisis. As a result of the health crisis, takeout service increased by 15 % during COVID-19.

Hypothesis testing consists in assessing the degree of validation of the hypotheses, based on the analysis of the survey data in order to finally establish the diagnosis. To achieve this, we tested hypothesis by hypothesis.

Inhabitants of Ali Mendjeli new town changed some of their consumption practices during COVID-19. A remarkable change in consumer practices has emerged during this period, such as frequenting shopping areas, which increased in some cases and fell in others (see Fig. 15), an increase in takeout food service (see Fig. 17). Furthermore, the pandemic has resulted in widespread adoption of ICT by inhabitants and we can see that from online buying which has increased significantly over the period (see Fig. 15). The results of our study reveal that the first hypothesis has been confirmed.

In terms of hygiene, the COVID-19 pandemic has had repercussions. Although inhabitants are familiar with hygiene recommendations, the pandemic period is an opportunity for them to be even more vigilant about hygiene practices in daily life. Hygiene showed an upward trend throughout this period, identical to the smell which moved upward during the crisis. The findings of our study confirm the second hypothesis (see Fig. 16).

4. DISCUSSION

It appears from the surveyed sample that the consumption practices before the COVID-19 pandemic were distinguished stably, all responses to the question were proximate, which means that most inhabitants in the new town of Ali Mendjeli frequented open and popular markets and made limited use of online shopping. Restaurants were crowded with consumers who ate their meals at the site, while taking away meals and home delivery were for specific cases. In our situation, the introduction of new food buying methods is a reaction to a larger issue rather than the product of these routine processes (Orlikowski & Scott, 2021). However, eating behaviours and attitudes reveal the improved dietary changes during the COVID-19 (Jaeger et al., 2021). According to Fuentes et al. (2022), the COVID-19 epidemic has had a significant impact on consumer food purchases. On the other hand, before the period of COVID-19 factors of atmosphere in commercial places motivated more and impacted the purchasing decision, such as music, which has an undeniable impact on the buying behaviour of inhabitants of Ali Mendjeli new town. Therefore, during COVID-19 online shopping became a necessity. The number of physical stores open was very limited; supermarkets set up contactless deliveries for people who ordered online and the precautionary instructions encouraged online shopping and contactless payment to stop the spread of the virus (Martin-Neuninger & Ruby, 2020). Thus, online shopping has increased considerably. Inhabitants of Ali Mendjeli new town have developed a reluctance towards restaurants and have strongly favoured the takeout service. The restaurant industry has been hit hard by the COVID-19 pandemic. However, one of its branches, fast food, has made progress with home delivery and take-away during the COVID-19 crisis. Since the beginning of the COVID-19 pandemic, restaurant hygiene practices have alarmed both customers and policymakers (Siddiqi et al., 2022). Hygiene has always been an important factor when buying food, but following this health crisis, inhabitants have become health conscious. The importance of hygiene has increased among

inhabitants of Ali Mendjeli new town. This concern is visible in the changes in eating habits in terms of purchasing and consumption choices.

The internet and information and communication technology play a significant role in the lives of modern youth; online activities are ingrained in their daily routines (Kinnula et al., 2015). Internet shopping is now a reality, and it is fast expanding. With the available tools, consumers are offered a range of options for comparing products, their features and price (Mican & Sitar-Taut, 2020). This study shows that the majority of the sample is a young people. It is clear that the sample is competent in the use of ICT. As mentioned earlier, 92 % of the sample use the internet to research a product before buying it, and more than 50 % of them are influenced by posting product sales on social networks. On the other hand, 79 % request services or products online and more than half of them use online booking applications and perform online payments. Fashion is on the throne of online shopping. We can see that clothing is the most requested product online. According to Purwaningtyas and Rahadi (2021), one of a person's basic needs is clothing. People dress differently at various occasions. Therefore, young people are especially brand and fashion conscious and like fashion brands; this can be explained by the dominance of the young population in the new town of Ali Mendjeli who are interested in fashion. The need for safety and security is one of the most important needs to which Maslow refers in his theory of needs, where it is placed in the second place after the satisfaction of physiological needs. In light of the results obtained and the projection of Maslow's theory on the period of the epidemic in Ali Mendjeli new town, we can see that the needs of the inhabitants of the new town during COVID-19 varied from the first and the second level according to Maslow's hierarchy of needs or between them.

CONCLUSION

The study presented here is of interest to analyse the changes in consumption practices during the COVID-19, as well as to understand how the uses of ICT evolved during the crisis. The analysis of the data collected from our sample allowed us to observe the psychosocial characteristics and their relationship with the level of ICT literacy among the surveyed population before and during the COVID-19 pandemic. The appropriation of ICT is also linked with the younger age range of the population. Hence, the COVID-19 pandemic management has found a supportive environment that has enabled it to adjust to the repercussions of this crisis. Under normal conditions, the external factors affect consumer behaviour and purchasing practices. However, during the period of crisis, COVID-19 acted as a barrier to these factors. It has negated some of them, such as music, and provoked others, such as hygiene. During COVID-19 period, consumers focused primarily on the functions and health-related attributes of products to select a place of purchase and they forgot the supplementary elements to select the sale points.

As we have pointed out, the use of ICT has been developing in a progressive way during COVID-19 among inhabitants of Ali Mendjeli new town. This study allowed us to bring out a crucial element, that of the contribution of ICT to the management of the health crisis of COVID-19 in all its aspects. The results can be

found in the new urban extensions, in the new urban poles welcoming young populations and escaping the yoke of traditional environments.

The limitation of this study is that we had no experience of conducting surveys during such a pandemic period. Also the respondents are not dissatisfied enough on their mode of consumption. Perhaps for future research, it will be easier to carry out surveys during periods of crisis because they have been drawn on the experience of previous research.

RECOMMENDATIONS

The following recommendations have been formulated:

- To create a regulatory framework for e-commerce (in terms of marketing, ordering and service);
- To develop and democratize ICT;
- To extend these services (based on ICT) to other sectors (government, education, etc.), especially at times of economic upturn;
- To expand the scope of teleworking;
- To include these measures in an “urban policy” for sustainable development.

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