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**The Impact of COVID-19 on E-commerce Use in Lebanon:
A Quantitative Study**

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Abstract

COVID-19 pandemic has changed business trends dramatically especially with increased quarantine periods and limited transportation. In addition, the developments in information technology, mainly the Internet, led to increased interest in studying e-commerce whether applicable through PCs or mobile devices. The aim of this article was to investigate how the Covid-19 pandemic affected e-commerce usage in Lebanon. The method used was quantitative where an online survey was distributed on a sample size of 400 customers. The results showed that during COVID-19 consumers increased the use of e-commerce as companies/stores were more dependent on their online presence to conduct their business, especially when long quarantine duration was applicable. In addition, with COVID-19 pandemic, customers were using more local websites and social media platforms to purchase food products, and they were satisfied with the quality, service provided, communication, and cash on delivery payments.

Keywords: COVID-19, e-commerce, Lebanon, online, payment, product.

JEL Classification: L810.

1. Introduction

The world has passed through a lot of pandemics such as the Spanish, Asian, and Hong Kong Flu, SARS-CoV-1, and lately the Coronavirus (COVID-19) pandemic. Each pandemic forced changes on local and worldwide economies, policies, social life, and customers' behaviour (Butu et al., 2020; Koch et al., 2020). According to the World Health Organization (WHO), 133,146,550 cases of COVID-19 existed with 2,888,530 deaths as of April 9th, 2021.

Although COVID-19 widespread enforced manufacturing sites closure, unbalanced economies, increased demand on necessities, and retail store downsizing, however, online businesses surfaced to meet the demands and needs of customers especially during quarantines. Retail stores who decided to survive had

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to build their online presence and those who already had established online services needed to boost their work and provide better service quality (Oven & Hicintuka, 2020). Businesses have highlighted the importance of e-commerce on websites, applications, and even social platforms for the ability to provide online interaction with customers, in addition to the required product information and enhanced product experience through the 3D product image technology (Chandna & Salimath, 2018).

According to the Ministry of Public Health (MOPH) in Lebanon, the incident of coronavirus increased to 492,000 cases and 6,592 deaths by April 8th, 2021, and people now are at higher risk than before to be infected. To combat this pandemic, the government imposed some strict rules such as social distancing, wearing masks, limiting the number of customers allowed to enter stores, and every now and then whole country closure. Moreover, as hospitals became overloaded with patients, people were obliged to stay at home to protect themselves and their families.

According to Societe Generale (2021), e-commerce sales in 2015 were US\$ 310 million (2.1 million people shopped online), while in 2016 they were US\$ 341 million (2.3 million shopped online), thus a 9.8% growth. Moreover, the Lebanese customers' most preferable method of payment showed to be cash on delivery as they had little trust with online payment security. Around 50% of the internet users were below 30 years old and most were from mid-income category. In addition, customers used to mostly shop clothes (44%) and travel services (42%), while electronics had the lowest percentage.

The aim of this paper is to study and analyse the adoption of e-commerce in the Lebanese market as little literature is available so far that discusses the customers' willingness to use e-commerce in Lebanon especially during the Coronavirus pandemic. This research will assist business developers and marketers in giving an insight over Lebanese customer online behaviour, their product preferences, and preferred method of payment, which will help in setting their marketing strategies.

2. Problem Statement

2.1. Definition of E-Commerce

Electronic commerce is an influential idea and procedure that has essentially changed human lives. Electronic trade is one of the principle criteria of transformation of Information Technology and correspondence in the field of economy (Nanehkaran, 2013).

Kutz (2016) stated that e-commerce is the exchange of tangible and intangible products through PC-web "Internet". It includes Mobile commerce "M-Commerce", e-cash transactions, Supply Network Management, Digital Marketing, and many others. More definitions of e-commerce include "an electronic exchange which is the deal or acquisition of merchandise or services between organizations, family units, people, governments and other open or private associations, directed over PC web-systems" (Qin, 2014). Moreover, according to VanHoose (2011), electronic

commerce alludes to any procedure that involves trading responsibility for rights to utilize products and enterprises by means of electronically connected devices such as computers where interaction occurs through the network, Internet.

2.2. Classification of E-commerce

- ***Business-to-Business e-commerce (B2B)***

B2B e-commerce is a sort of trade exchange that occurs between organizations or an exchange that happens between an organization and other organization to move products (Nanehkaran, 2013). Considered the biggest classification of online businesses, it includes organizations carrying out e-purchases, supply network management, connect partnerships, and arranging sale exchanges over the web (Djan, 2008). B2B online business presents possible favourable circumstances for developed countries since it lessens exchange costs, and the cost of the internet business exchange is affected less by distance and location than in traditional advertising channels (Humphrey, 2002).

- ***Business-to-Consumer e-commerce (B2C)***

It includes organizations, profit and non-profit, or government launching tangible and intangible products to customers by means of web innovations (VanHoose, 2011). This incorporates organizations selling programs and equipment through the web, taking requests for items that are along these lines handed over to the buyer, and giving internet services, for example, online magazines and newsletters and search engines (Djan, 2008).

- ***Business operations***

It alludes to the utilization of web-based business to customize and adapt the company's inner exercise business tasks to amplify their proficiency and viability such as sharing sales forecasts with suppliers. Using electronic commerce, organizations can improve the work of supply chains, give propelled CRM systems to enhance customer satisfaction, and diminish exchange costs (Djan, 2008).

- ***Consumer-to-Consumer e-commerce (C2C)***

It involves the utilization of web-based business by people to exchange and buy/sell data with others. An enormous development in C2C auction websites happened, for example, e-Bay and other websites empowering buyers to offer products and enterprises to different buyers on an individual premise (Djan, 2008). Consumer-to-consumer electronic commerce has developed extensively lately, and this type of electronic trade has done a lot to extend the job of electronic commerce intermediaries or third parties such as distributors, which help arrange trades between a purchaser and merchant in an online business exchange (VanHoose, 2011).

- ***Business-to-Government e-commerce***

It offers merchandise or services to governments or governmental offices such as the military, police power, emergency clinics and schools. Besides, organizations will frequently contend for agreements to give online governmental services to people such as assortment of taxes, and providing governmental services (Djan, 2008).

2.3. Literature Review

According to Hachem (2020), who studied 500 Jordanian participants, COVID-19 proved to have a definite effect on the use of e-commerce with increased shopping rate for groceries and life necessities due to long quarantines. In addition, females were the main influencers in online shopping decisions. Furthermore, people's behaviour during COVID-19 has changed as their daily life tasks, hobbies and lifestyles have been shifted to be more organized and more economically planned as lockdowns forced closure on restaurants, nightclubs, entertainment centers, malls, and many other facilities.

According to Neger & Uddin (2020), a questionnaire distributed on 230 respondents in Bangladesh revealed that product and service features, branding, and diversity affect the customer's online purchasing behaviour. In addition, payments are best to be easy and convenient for a consumer. That is why; cash on delivery showed to be the best way of payment and the most secure way of payment. Moreover, consumers considered that e-commerce would lead to timesaving and better ability to gather and compare product information and prices.

According to Najjar (2018), before the COVID-19 pandemic, interviews done with six retail companies in Lebanon showed that companies started to use their online presence for promotional purposes rather than for sales as the Internet infrastructure and owners' mentality did not support the use of technology to boost their sales though e-commerce.

As stated by Daou & Mikhael (2015), it was shown that the most purchased products online was clothes, then hotel booking and airline tickets. Customers used to focus their online use on e-banking services such as transferring money and paying bills.

A survey executed by Ecommerce Europe (2021), on 19 participants living in different European countries, showed that closure of physical stores due to COVID-19 leads to an increase in online sales. A share of 84.2% of the respondents stated that they increased the purchase and use of daily needs as food and drug supplies, while 73.7% declared that there is a decrease in purchasing online travel tickets.

3. Research Question/Aims of the Research

As COVID-19 has changed customers' behaviour and the way of living, and as data supporting the Lebanese consumers' online shopping behaviour is still limited, this study will present an overview over the Lebanese people e-commerce

behaviour before and during COVID-19, types of products shopped, preferred way of payment, and their level of satisfaction with products and services quality provided.

The research questions addressed include:

Q1: How much did online purchases change before and after COVID-19 pandemic?

Q2: What is the level of online purchase satisfaction and the preferred way of payment?

4. Research Methods

To study consumer behaviour towards e-commerce, I adopted a quantitative descriptive method through distributing an online survey of 17 questions via social media platforms and WhatsApp. The sampling technique used was simple random sampling where a sample size of 400 people participated randomly and responded to demographic and to online shopping behaviour and preference questions. In addition, I collected secondary data through some articles and reports. Collecting information took place during January and February 2021.

5. Findings

5.1. Demographic Information

The sample size of the study was 400 customers. Of these, 55% were from the age group 18-25 years, while 20% were 26-33 years old. Thus, the majority of the participants were aged between 18 and 33 years old. In addition, 70% were females and 30% males (Figure 1).

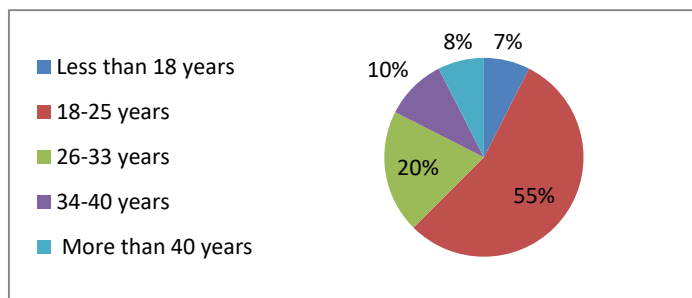


Figure 1. Age of participants

Source: Author's development (2021).

The majority of those who participated had an income \$700-1000 (dollar rate at 1,500 Lebanese pounds) followed by \$1001-1500, which is considered the major income range of most people in Lebanon (Figure 2). Those can be searching for deals or lower prices online.

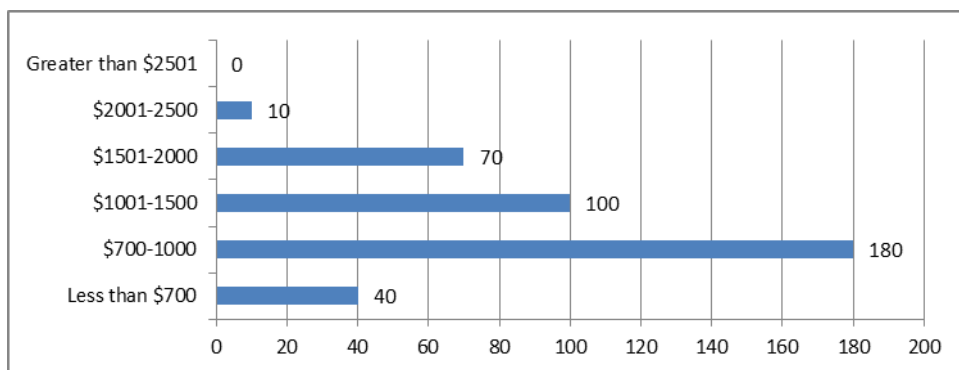


Figure 2. Income of participants
 Source: Author’s development (2021).

5.2. Measuring Ordering and Frequency Before and During COVID-19

As shown in Figure 3, e-commerce purchases during COVID-19 were more than before COVID-19. The increase is due to quarantines and governmental restrictions that shifted businesses from brick-and-mortar to brick-and-click or click-only. In addition, the frequency of ordering increased several times a week and once a week during the COVID-19 pandemic (Figure 4).

Moreover, before the COVID-19 pandemic, 86% were using international applications or websites to order, while 14% were only using local social media pages. During COVID-19, consumers shifted from international (32%) to local websites, applications, and social media pages (68%) for ordering. The worldwide lockdown and the increased adoption of e-commerce by businesses forced customers to depend on local online shopping, as more options are available.

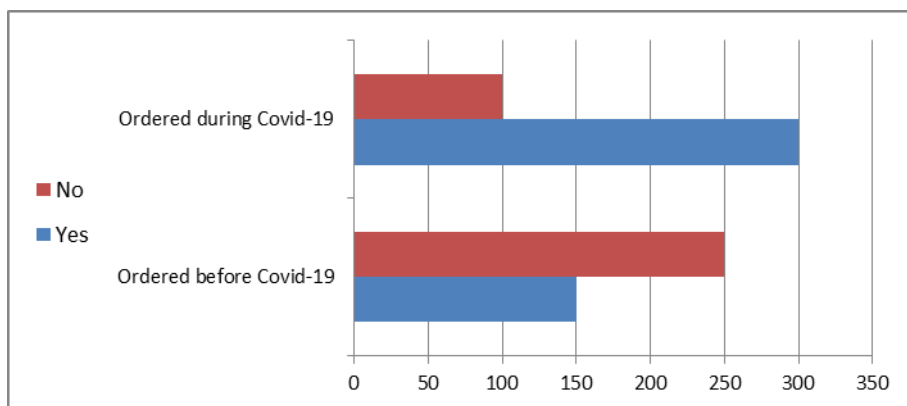


Figure 3. Comparing number of customers purchasing online
 Source: Author’s development (2021).

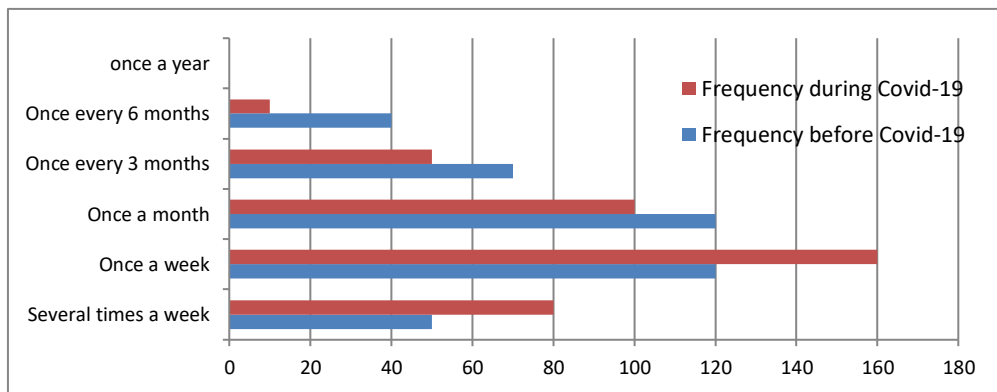


Figure 4. Comparing frequency of online purchases before and during COVID-19
 Source: Author’s development (2021).

5.3. Quality of E-commerce Products and Customer Service

It is shown in Figure 5 that 85% considered the products purchased online the same as those purchased in stores and 15% considered them different. In addition, 30% stated that they are very satisfied with delivery service, 25% satisfied, 23% neutral, 15% dissatisfied, and 7% highly dissatisfied. When it came to the quality of communication and response rate, 15% were very satisfied, 37% satisfied, 30% neutral, 12% dissatisfied, and 6% very dissatisfied. Thus, customers were satisfied with online product, their delivery service and communication, which will support the increase in the number of customers and frequency purchasing online.

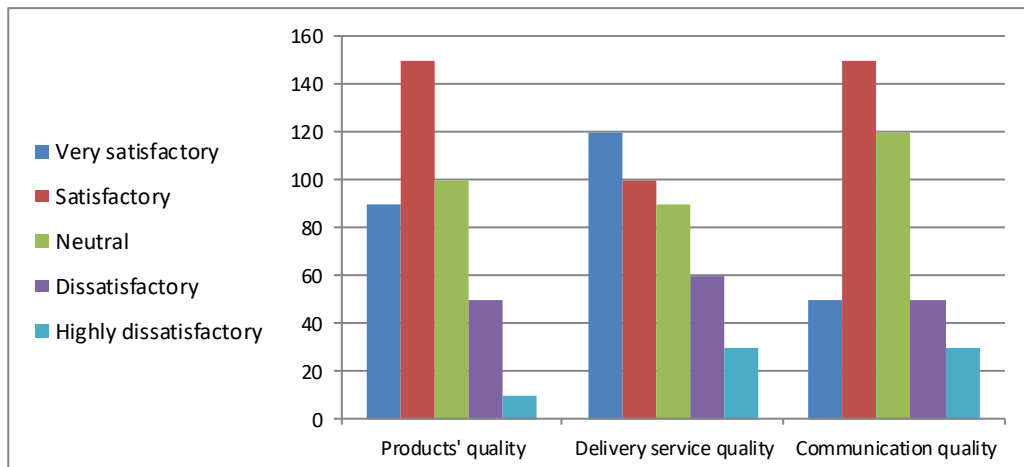


Figure 5. Customers’ level of satisfaction of the quality provided online
 Source: Author’s development (2021).

5.4. Type of Product Purchased Online and Preferred Way of Payment

The demand for food, drink, and groceries has increased during the emergence of COVID-19. However, travel and hotel service sales have decreased online (Figure 6). Consumers tend to consume more basic convenience products than entertainment, leisure, shopping products. That explains the increase in purchase frequency and the increase in food and groceries demand. In addition, lockdowns and governmental law restrictions on movement, lead to airport closure worldwide that will eventually affect the hotel industry service.

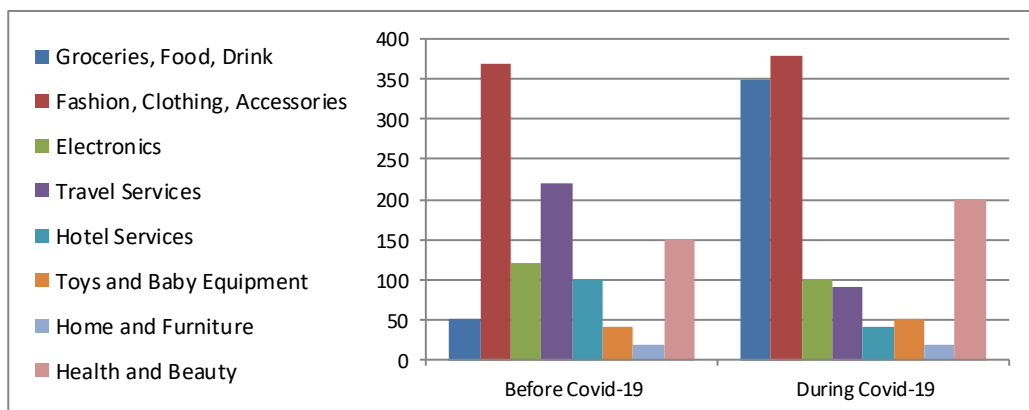


Figure 6. Type of products purchased online

Source: Author’s development (2021).

The preferred method of payment was the cash on delivery, as 74% did not trust online payments, while only 6% supported the use of credit cards and 20% bank transfers (Figure 7). This result supports what Neger & Uddin (2020) stated, that customers trust cash on delivery more than any other method of payment.

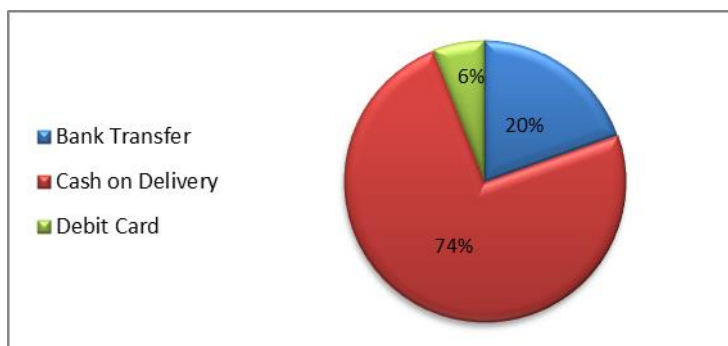


Figure 7. Methods of online product payment

Source: Author’s development (2021).

6. Conclusions

As the study results presented, adolescences were the major group who purchase online products, as they spend most of their time using social media platforms. In addition, female users were more than male users, as females are more interested in beauty, fashion, and the ones who by culture care for home food, drink, and grocery availability. Thus, e-commerce businesses should focus on targeting more females when it comes to providing basic needs.

In addition, answering the first research question, the percentage use of e-commerce and frequency has increased during COVID-19 pandemic due to quarantines and people's preference to limit contact. With the closure of stores and supermarkets, a new method adopted by Lebanese people was to purchase more of their food supplies online. Moreover, as proved, health items purchases has also increased due to the people's craving to purchase vitamins and any health supplement that will boost their immune system and protect them against Coronavirus.

Accordingly, during COVID-19, customers shifted their purchasing preferences from entertaining and leisure products to more basic products. Businesses who wish to survive during pandemics should offer customers what they need from food, drinks, groceries, health items, and other basic products. Moreover, as most businesses are activated online, intense competition will force companies to provide better quality products, enhanced delivery service, and immediate way of communication, and this is what the study showed in Figure 5, which answered the second research question.

On the other hand, online payments had always had a trust issue due to cybercrime. Answering the second research question, cash on delivery is being one motivator to encourage people to purchase online after they receive their products and are sure about their quality. Companies should set their strategies to match the consumption behaviour of Lebanese customers who (74% of the participants) proved that to use e-commerce sites, they prefer cash on delivery payment method.

In conclusion, as proved, COVID-19 changed consumers' behaviour and moved people to spend more time online in an attempt to have their products available without enforcing risks on their lives and their family lives. Moreover, the needs of customers changed where purchasing leisure and entertainment products showed to be lesser.

The limitations of the study could be that most respondents were females, which will lead to limited data on males' e-commerce behaviour. In addition, the majority of participants were less than 33 years old but it is necessary to mention that those above 33 years have a high purchasing power that should be studied, too. Furthermore, Lebanon is passing through an economic recession that can influence the results, as people are rather targeting products with low prices due to inflation, which explains why people are shifting their purchases from international to local stores.

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