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Reading books during confinement: different perceptions during COVID-19 times

How was the consumers' experience affected by
COVID-19 during and after purchase?

Sara do Amaral Neves

Dissertation report presented as partial requirement for
obtaining the Master Degree Program in Data-Driven
Marketing



NOVA Information Management School
Instituto Superior de Estatística e Gestão de Informação
Universidade Nova de Lisboa

READING BOOKS DURING CONFINEMENT: DIFFERENT PERCEPTIONS DURING COVID-19 TIMES

by

Sara do Amaral Neves

Dissertation report presented as a partial requirement for obtaining the Master's Degree Program in
Data-Driven Marketing specializing in Marketing Intelligence

Advisor: Paulo Rita

Co-Advisor: Sérgio Moro

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DEDICATION

To my grandmothers, Maria José e Guadalupe, my grandfather José and auntie Violante, this thesis is for you. Thank you.

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This study is the result of a great effort and dedication that came to show me I can achieve all my goals; all I must do is not give up.

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ABSTRACT

Since March 2020, the world has been adapting to a new reality due to the impact of the COVID-19 virus which taken on effective proportions managing to bring the whole world into confinement. Therefore, to make time pass faster, reading books was one of the main practiced activities during the confinement leading to the aim of this research, which is to understand if the consumers' perspective about books has changed during the confinement. Through Amazon.com, book reviews from before and after COVID-19 started were collected, and sentiment analysis was performed to extract consumers' feelings and experiences felt during reading and compare them with previous years to see if these experiences had any change. The study revealed that the confinement positively impacted people's feelings and perceptions of books and reading and that people were more willing to share their experiences through the Amazon platform with other consumers. This dissertation can be useful not only to complement previous studies about this subject but also to help companies find new strategies for book sales.

KEYWORDS

COVID-19; Confinement; Reading books; Online books reviews; Sentiment Analysis

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LIST OF ABBREVIATIONS AND ACRONYMS

CDC	Centers for Disease Control and Prevention
eWOM	Electronic Word of Mouth
U.S.	United States
WOM	Word of Mouth

1. INTRODUCTION

Reading books is for many people a moment of pleasure and good experiences, as well as a source of knowledge, and is considered one essential occupation in people's lives (Erdem, 2015; Kaya et al., 2020; Loan, 2009). The book industry has been facing many changes during the past years. It started with the ancient scrolls, which people used to write, changing to printing books, and most recently to e-books, which are not physical as the others (Kovač et al., 2019). Before the above changes happened, people used to have traditional reading habits where they would go to a library, "a traditional information institution" (Verma & Malviya, 2010), to have access to books, used to purchase books in physical stores and have access to the information by WOM (Godes & Mayzlin, 2004).

The internet's emergence has brought many changes, with new reading formats, new ways to get information and reading habits. One of the new publishing formats that came with the internet was the E-book, defined as "a digital object designed to be read on a handheld reading device or to be listened to from a speech-generating tool" (Hillesund, 2001). According to Dr. Eric J. Simon (2001), "E-books offer several features of considerable value to college students, such as the ability to store large amounts of material, high-quality screens with backlighting for reading in many situations, and a lightweight and easy-to-use design."

Terje Hillesund (2001) stated that with the appearance of E-books and the technological growth the world has been experiencing over time, new ways of representing content, distributing and selling books emerged. Besides that, the author concluded that it was also possible to identify new patterns of behavior that caught organizations' attention which immediately started progressing to meet these challenges as publishers and authors. It was then found that the U.S. also has begun to recognize the potential of e-books as an opportunity to strengthen the economy. Regardless of all the advantages of the e-books previously stated, the author concluded, "e-books cannot beat traditional books yet."

The internet appearance allowed consumers to access information faster as it became possible to share experiences and opinions and even enable people to make online purchases (Fernandes et al., 2021). According to Verma & Malviya (2010), the internet brought the possibility to share and get easier and rapid access to information, changing reading habits by introducing new publishing formats and positively impacting people's reading habits.

A recent research study performed by Statista on Book Market in the U.S. identified that it was in 2007 that the bookstore sales in billion U.S. dollars had reached the maximum between 1992 and 2020. Comparing the same variable between 2019 and 2020, the country faced a high increase in sales. When it comes to comparing the average daily time spent reading between 2014 and 2020, it could be deduced that U.S. citizens, in 2020, highly increased the time they spent reading when compared to past years whereby, people over age 65 are the ones who spend more time reading per day. Even though the number of audiobook titles published has been increasing throughout the years, people continue to prefer to buy hardbacks and mass-market & paperbacks, with the highest sales revenue since 2017 (Watson, 2021).

The sharing of experiences and comments on the reading books began to gain greater expression and meaning when the possibility of online reviews appeared on retailers' platforms such as Amazon.com. Amazon "is the world's largest e-commerce company" (Schaverien, 2018), and it was one of the first e-commerce websites that allowed people to share their experiences with some products (Joseph,

2020; Moro & Rita, 2022). These reviews are very famous even for non-customers, who prefer to read these texts written by actual consumers before making a purchase decision (Spool, 2009).

Reviews can inform consumers about a given book and its content. These can be so informative that they reach the point of persuading and influencing people to buy a book (Sorensen & Rasmussen, 2004). However, as reviews influence consumer choices, other external factors may affect consumer behavior when reading books.

Since 2019, the world has been undergoing drastic changes due to the new COVID-19. When this virus appeared, it can already be seen that people who were very interested in libraries also became interested in reading digital content, mainly eBooks (Parikh et al., 2020).

According to the above findings, this study's research gap is presented. No studies were found on the COVID-19 impact on consumers' perceptions regarding reading books during confinement. As such, this study goes against previous studies on reading habits, adding a new line of investigation to understand the COVID-19 impact on book reviews and consumers' perceptions of reading books. More specifically, if consumers have changed their perception of certain books after the confinement started by analyzing book reviews from Amazon.com websites before and after COVID-19 and performing sentiment analysis, comparing the results of these two periods.

This research focuses on American consumers and aims to answer the following questions: i) Did consumers' perspectives on reading books change during confinement? ii) What was the impact of COVID-19 on consumer reviews? iii) Are the COVID-19 cases range directly affecting the consumers reading habits or behavior when it comes to reading and buying books?

Lastly, studying the confinement impact on consumers' reading habits, their opinions about specific books, and the comparison between the reviews and the number of cases on the same date will be a rise of new knowledge that may complement the already existing information on themes that are directly related.

2. LITERATURE REVIEW

2.1 THE COVID-19 PANDEMIC

Coronavirus is the name of the infectious disease caused by the SARS-CoV-2 virus. The first cases started to appear on December 30, 2019, in the city of Wuhan - China, appearing to be atypical pneumonia that quickly spread to other metropolitan areas in China and, a few months later, to the rest of the world (Wu et al., 2020). By mid-October 2020, the world reached a cumulative total number of cases counted since 22 January of approximately 50,000,000. In a short span of 3 months (October 2020 - January 2021), global cases doubled to 100,000,000, and it continued to increase exponentially, reaching approximately 250,000,000 cases on 13 October 2021 (Elflein, 2022).

The uncontrolled increase of COVID-19 cases worldwide has brought the need to identify effective ways to halt the spread of the virus; however, ignorance of the behavior of the disease and the factors that cause it to spread so rapidly has made it difficult to carry out an effective preventive plan (António et al., 2021; Haratian et al., 2021). Prevention measures directly impact the population, and it is necessary to consider different factors such as economic and demographic. It is up to each country to study and outline the plans that best suit its conditions and needs to reduce the spread of the virus, considering the consequences this may cause (Antonio et al., 2022; Ganesh et al., 2020).

One of the measures taken to combat the pandemic, adopted by many countries, was the implementation of social distancing and the closure of spaces with the capacity to have a large gathering of people, such as schools and many other public structures. According to the author, all these sudden changes have had severe consequences for the mental health of the population, especially children and young people, who can no longer go to the places that used to make them happy (Golberstein et al., 2020).

In the U.S., the situation was not different. On March 2020, a study was published aiming to understand the origin of the appearance of the first case of COVID-19 in the United States of America. According to the authors who conducted this study, the first detected and confirmed case in the U.S. was in a laboratory on 23 January 2020, being the virus identified in a female patient who had returned from a trip to the city of Wuhan (Ghinai et al., 2020). Since that day, the number of new cases and deaths from the disease has increased, spreading to all states (Asadi-Zeydabadi et al., 2021).

On February 26, 2020, CDC confirmed the appearance of a new COVID-19 case in California, bringing with it doubts about how this virus spread since the identified patient would not have had any contact with infected people or would have returned from travel (CDC, 2020).

From March 2020 onwards, the number of cases in the U.S. began to gain strength, increasing the incidence rate in a dramatic way that provoked the declaration of a state of national emergency by the government (Husnayain et al., 2021). The country's president quickly implemented prevention measures to prevent the disease from continuing to spread abruptly, thus restricting social gatherings and travel restrictions (Bacon & Ortiz, 2020).

At some point in the pandemic, the USA becomes the country with the most cases of COVID-19 per 100,000 inhabitants and the highest number of deaths, thus becoming a country in a dramatic situation (Rodriguez et al., 2020).

2.2 COVID-19: THE LOCKDOWN IMPACT ON THE BOOKS INDUSTRY

As previously stated, governments agreed to implement social distancing and close schools to decrease the virus spread; however, these measures considerably impacted children and adolescent's life, increasing mental health diseases (Golberstein et al., 2020).

The confinement significantly affected family and personal routines; as children started to take online classes, parents began to work from home and socialize through electronic devices, each within their own four walls (Gotler et al., 2021).

According to Parikh et al. (2020), people who used to go to a library to read were also greatly affected by the pandemic as libraries were closed, and by staying at home, they had many more activities to do than reading. Even though there were several activities to do during the lockdown, the authors concluded that the main activity during lockdown remained reading books, where people were looking to gain more knowledge/learning through reading. There was also an increased interest in e-books.

Several authors have concluded that reading frequency has increased during confinement. For example, Hirschberg (2020) concluded that 58% of the 748 Canadians who were surveyed to understand their reading habits during COVID-19 are reading more, 22% are buying more books, 43% are using online retailers or apps to purchase print books showing that they are following the same paths as before the pandemic.

Reading frequency increased during the confinement. However, because there were people who had care responsibilities, "people spent more time reading, but the volume they read was less" (Boucher et al., 2020).

Another investigation was conducted to test the relationship between reading motivation and reading habits during the COVID-19 pandemic. In this study, it was possible to conclude that people with one self-motivation to read (intrinsic motivation) were not affected by the confinement as they could maintain the same habits. This means that despite the exposure to moments of great uncertainty and stress in the face of the unknown situation the world was going through, the intrinsic motivation of readers maintained its positive impact. However, the relationship between reading frequency and reading motivation can be negative. If the reading activity requires the reader more attention and is done in a stressful environment, it can become an activity of great distress (de Sixte et al., 2021).

2.3 READING HABITS

Reading habits have been studied since the 20th century. They can be defined as reading regularly as a necessity, a source of pleasure, and a key to developing a strong personality (Erdem, 2015). They can also be described as "the noblest of passions and the noblest work of the mind" and are considered one of the most important occupations in people's lives (Kaya et al., 2020). These habits can be measured by analyzing what, how well and how often people read (Scales & Rhee, 2001).

Through reading, people add value to themselves and the society in which they find themselves, which is essential for communication and understanding. Ignorance is in the middle of a cycle that begins with illiteracy, the consequence of deprivation of knowledge and disintegration: "A dumb person becomes a communicator and a lame climbs mountain of knowledge through reading." (Loan, 2009).

In the 21st century, there are differences in reading habits between people who studied in rural and urban universities, considered one of the breaches in reading culture, making the education and information necessary available to everyone to reduce this discrepancy between societies (Lone, 2012).

As previously studied by Verma & Malviya (2010), there are differences between reading habits. Traditional habits are defined as reading information published in paper formats such as books, newspapers, and magazines. On the other hand, new reading formats created a different habit where people do not need the information in the paper to read and get information, as they can use the Internet instead.

Although there are different formats which people can read and get information from, Americans continue to choose books, as they are still very famous among the population, making the books' sales break records. The author also mentioned in his article some advantages of printed books compared to electronic ones, such as printed books having better "visual imaging," they can last longer, they are cheaper, and finally, readers have more respect for printed books (Baldwin, 2000).

Starting with children and teenagers' reading habits, they consider reading a way of relaxing or having fun, expecting books to help them learn new subjects and understand different cultures and even encourage them to try new hobbies (Nestlé Family Monitor, 2003).

A study carried out in 2001 by Alice M. Scales & Ock Rhee (2001) on adults' reading habits, and patterns indicate that the type of reading is different considering gender as one of the variables. The reading habit might be related to each person's lifestyle as women seek to read highly regarded books while men prefer to read short stories with more information. In 2019, "individual differences in reading habits mediate the effects of personality traits in the global openness to experience domain" (Kuijpers et al., 2019).

Books can be divided into different categories according to the information they provide. In the earliest fifteenth century, the leading book categories were religious, spiritual, and intellectual authorities. Still, these categories have suffered several transformations throughout the years, e.g., the entertainment category's appearance in the book industry (Kovač et al., 2019).

Considering all the literature on reading habits, a study resumes all the steps of reading habit development. A reading habit starts with access to many books, which will lead people to the freedom of choosing what they can read, developing a positive reading attitude and motivation to read more books end up creating independent and thriving language-developed readers (Rodrigo et al., 2014).

Keeping this model in mind, some reading variables are described in the next topic.

2.3.1 Reading Motivation

Reading motivation "refers to an individual's personal goals, values, and beliefs regarding the topics, processes, and outcomes of reading (Guthrie & Wigfield, 2000; Barber & Klauda, 2020) and can be divided into two different motivations: Intrinsic motivation and Extrinsic motivation (Guthrie et al., 2000).

In a study conducted in 2012, intrinsic motivation was defined as the "willingness to read because that activity is satisfying or rewarding in its own right.", meaning that people seek to read things of their

interest knowing they will get involved in the topic get satisfied with the whole experience by the end of it (Schiefele et al., 2012).

On the other hand, extrinsic motivation is associated with external factors not exclusively related to the self. In this case, people are motivated to read because they know they will achieve something. Could this be a "recognition for reading, the gratification in receiving a tangible form of recognition for success in reading; and reading for grades" and many others (Wigfield & Guthrie, 1997)?

When comparing the types of reading motivation mentioned above, it was concluded that intrinsic motivation has a positive impact on reading behavior and reading competence and extrinsic motivation has the opposite, meaning that this motivation has a negative impact on reading behavior and reading competence (Schiefele et al., 2012).

Focusing on intrinsic motivation, reading books is a unique moment of pleasure and liberty for many people and is part of their daily routine. It can also be a moment to share with others who might have the same feelings about a book (Ross, 2000).

As previously said, people can feel pleasure because of reading (Erdem, 2015), which can not only cause a lot of benefits for people as "text comprehension and grammar, positive reading attitudes, pleasure in reading in later life, increased general knowledge" but also have emotional, social, and educational consequences. Emotional consequences are related to what people feel when reading books, which will impact their behavior in a social context, such as social interaction. Educational consequences allow people to learn about a new thing that can be used for life (Clark & Rumbold, 2006). Another variable responsible for pleasure is the readers' power of choice, making successful decisions "part of a self-reinforcing system that sustains the pleasure" (Ross, 2000).

2.3.2 Reading Experiences

In 2015 it was found that reading experiences are related to four factors: the factor of the self, the factor of others, the factor of teaching and learning, and the factor of forced reading. According to the author, each person can positively influence others' experiences by sharing his/her own experiences or the information obtained through reading, being this awareness that invigorates a person (Blyseth & Uk, 2015).

Reading experiences are also related to pleasure, an emotion linked to this activity. People choose reading, among other activities, because they continue to remember this information from previous knowledge or opinions (Ross, 2000).

2.3.3 Reading Frequency

Considering previous studies, there are two concepts to be distinguished: reading frequency and reading habits. There is also the need for a progression in studies that distinguish both concepts through independent measures, as the "frequency of occurrence should not be equated with habit" (Verplanken, 2006).

Reading frequency can be measured by "recognition checklists," allowing participants to identify authors and books they know, which will create a link to the number of books read and readers who are more engaged in reading (McQuillan & Au, 2001). These finds are in accordance with what other authors discovered years later: that reading frequency/quantity are widely used measures when

studying reading habits. Through questionnaires, investigators can effectively measure behavioral frequency to determine if it is an actual habit (Schmidt & Retelsdorf, 2016).

2.4 ONLINE BOOKS' REVIEWS

Electronic Word of Mouth (eWOM) can be defined as any positive or negative statement made on the Internet by a customer or potential customer regarding a product or company. It can be read by multiple people on online platforms, similar to the word-of-mouth concept, where people share their opinion about something in person (Hennig-Thurau et al., 2004).

These opinions shared on the internet are composed of "a textual review of a product, a formal product rating (often numeric in nature), the number of other readers who found the review useful and/or the degree of usefulness, and a link to information about the review writer." (Burton & Khammash, 2010). They also have a star rating feature from 1 to 5 stars, each range with its meaning. When the consumers give 1 star to a specific product, it means the review is extremely negative, and they did not have a good experience while using the product. On the opposite side, five stars implies the product has an extremely positive review, and the experience was extremely good while using it. Finally, reviews with 2, 3, or 4 stars are in the middle of the rating, meaning consumers have mixed feelings about the product (Fei Wu et al., 2011).

Reviews end up adding more information on the existing one, for example, product descriptions, which allows consumers to access more information when it comes to "evaluating alternatives" (Mudambi & Schuff, 2010). Also, reviews became a "new channel of information acquisition" as, according to the author, measuring and classifying the quality of certain products is a very difficult task. Several are only possible to classify after consumers usage, books one of the examples, so consumers started to have a new way to "access detailed information on the quality of an experience good" (Bounie et al., 2005).

There are two types of reviews, persuasive reviews, which are opinions regarding a book's quality made to influence consumers, and informative reviews, whose primary goal is to transmit readers' experiences when reading a certain book (Sorensen & Rasmussen, 2004). Despite positive and negative reviews, "reviews could offer a book exposure and bring awareness to its publication," meaning both capture consumers' attention, making them discuss with each other, and can even increase books' views and downloads (Halevi et al., 2016). In addition, positive and negative reviews are good "publicity" for books, and both can persuade and inform those searching for a book (Sorensen & Rasmussen, 2004).

Negative reviews can be compelling because they negatively impact book sales due to consumers paying careful attention to written reviews, and they behave accordingly (Chevalier & Mayzlin, 2006). To get around the negative comments, it was found that if incentives were given to reviewers, reviews tended to be more positive as this writing process became more enjoyable for those doing it (Woolley & Sharif, 2021).

Analyzing reviews from another perspective, since everyone is free to share their experiences and opinions regarding books, the possibility of manipulation becomes more likely to happen, and this can also impact book sales in negative ways (Kousha & Thelwall, 2016).

Since consumers have access to many reviews, it becomes difficult for them to read and pay attention to all the information provided. To make consumers' life easier, there is a feature on many websites

that inform consumers if the reviews are helpful or not by “simply asking anyone who read the review to vote on the question “Was this review helpful to you?” making the consumer’s decision-making process easier (Spool, 2009).

The decision-making process comprises six phases: problem recognition, information acquisition, information evaluation, choice, purchase, and post-purchase evaluation. They also concluded that the choice process has two phases, starting with eliminating options and then evaluating the remaining ones (Leemans & Stokmans, 1992). Consumers have access to thousands of books during the decision-making process, which is very challenging as it is nearly impossible to choose just one book from all the others (Ross, 2000). This process can be described as a “complex process” due to the extensive available options (Leemans & Stokmans, 1992). Still, it is also a key step when it comes to readers feeling motivated about their reading (Clark & Rumbold, 2006) and powerful about their choices (Sanacore, 1999).

There are several reasons why a person buys a particular book. It can be related to previous experiences, such as a good experience reading another work by a particular author, the reputation of the book, the reputation of the person who published the book, or even a recommendation from a close person who also has a good knowledge of books (Ross, 2000). Hence people are significantly impacted by external factors, which will hardly influence their final choice, sometimes changing their first thoughts on buying a book (d’Astous et al., 2006).

As part of this process, the purchase intention measures the possibility of a consumer buying a product, meaning that this may happen if a person intends to purchase something (Lin & Huang, 2005). For Mudambi & Schuff (2010), consumers use this process as a precaution to reduce purchase uncertainty.

According to Godes & Mayzlin (2004), all the online information consumers are exposed to can be related to their reviews and how they express themselves. This information is also responsible for their final decision when purchasing a book. Reviews have a significant contribution during the decision-making process as they provide helpful information to consumers and librarians when they are choosing a book (Lin & Huang, 2005), as well as the star ratings because they are more influenced by other consumers opinions rather than experts (Y. F. Chen, 2008).

The information from other consumers’ reviews is used to evaluate product quality. It is related to book sales, meaning that the more positive reviews are, much more purchases the book has (Chen et al., 2008). Furthermore, eWOM is an instrument used by buyers to sellers, as it significantly impacts books, their authors, and their complementary books, and is the primary source of social buying experience (Amblee & Bui, 2011).

Even though reviews have the power to influence consumers’ purchases, it is necessary to keep in mind that these reviews must be reliable, and for this to happen, all the platform's objectives which allow this feature to “build trust for the consumer, promote website and service quality, facilitate member matching and offer consumers sufficient information as well as a user-friendly design” (Constantinides & Holleschovsky, 2016).

2.5 ONLINE REVIEWS AFTER COVID-19

In 2021, the impact that COVID-19 had on online consumer behavior was studied, and it was concluded that, after the pandemic started, there was a significant increase in visits to websites that allow online

shopping, such as supermarkets, highlighting the commitment of consumers to make almost daily online purchases. It was also possible to see that consumers have become more experienced in online shopping, thus impacting the speed of decision-making and making online shopping an integral part of consumers' lives (Gu et al., 2021).

Regarding product reviews, Kutlubay et al. (2021) realized a drastic change in online reviews immediately after COVID-19 started. There was a decrease in the number of reviews and an increase in negative emotions expressed on the sharing making them more elaborated, reflecting the effort of giving more details on peoples' texts. However, this drastic change did not take much longer, which allowed the authors to conclude that this behavior became normal.

It is between the need to continue to harness the growth of eWOM, and through it, companies continue to add customer value (King et al., 2014). The need to understand the impact that external factors have on consumers' opinions expressed through online platforms (Kutlubay et al., 2021) that this study arises.

Firstly, this study responds to the most recent event's impact on online consumers' lives. Until the beginning of this pandemic, no studies had been identified on the possible effects of external changes on consumer behavior and how this affects their opinions and perceptions of the products they consume/purchase, even more so in a situation where access to information is easier with the Internet and the possibility of expressing opinions as well. Thus, this study aims to add to the existing literature an analysis focused on comparing reviews carried out pre- and post-COVID-19, focusing on only one specific product, the books sold on Amazon's website.

2.6 SENTIMENT ANALYSIS FROM BOOK REVIEWS

As previously said, the internet has a significant impact on consumers, allowing each group of readers to use websites like Amazon to share their opinions and experiences in text formats about books (Lin & Huang, 2005), and are a key help when it comes to sentiment analysis (Almjawel et al., 2019; Calheiros et al., 2017; Guerreiro & Rita, 2020).

Sentiment analysis seeks to identify and understand consumers' emotions and opinions about specific topics based on the text written by them on platforms that allow them to do reviews. The authors stated that it is through some words that it is possible to identify certain feelings, and there is the possibility to find relationships between several words to find the feeling more accurately. This process is an opportunity for entrepreneurs, as it allows them to analyze the reputation of products and brands. Through these opinions, it is possible to review and identify what needs to be improved on the topic identified (Mouthami et al., 2013).

Shivaprasad & Shetty (2017) conducted a study composed of the following steps: reviews collection process, data preparation, review analysis, sentiment classification, and finally, the results. After collecting all the reviews, which will have all the unstructured data, it is necessary to remove all the unnecessary information at the pre-processing stage. Then, on the review's analysis, it identified the essential and attractive information and extracted opinions and features of the products pointed out by consumers. Finally, the overall sentiment from the collected sentences was extracted to see if it was positive or negative. For the authors, this analysis significantly impacts business decisions by providing meaningful information to help entrepreneurs take impactful actions.

This idea was also defended by Prabowo & Thelwall (2009), who found sentiments provided by reviews can be divided into two categories: positive and negative or into a scale, e.g., very good, good, satisfactory, bad, or very bad. For these authors, understanding and identifying what consumers feel regarding their products is an advantage used to improve product quality and acceptance, making sentiment analysis an important investigation in the research area.

The investigation done for the literature review confirmed that sentiment analysis has not been done yet on consumer reviews after the pandemic started; therefore, this dissertation research gap is confirmed.

3. CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES

3.1 CONCEPTUAL MODEL

Since this study aims to find the COVID-19 impact on consumers' perceptions and sentiment around reading books through reading habits measures, it is possible to identify the dependent, independent, and moderated variables. Reading motivation, reading experiences, and frequency, which directly impact sentiment around reading books (Ross, 2000; Schmidt & Retelsdorf, 2016), were identified as the independent variables. The confinement, star rating, number of book reviews, and the sentiment expressed in reviews are the moderator variables that will be studied to see their effect on the dependent variable, the sentiment around reading books. Therefore, the Conceptual model of this study is presented below:

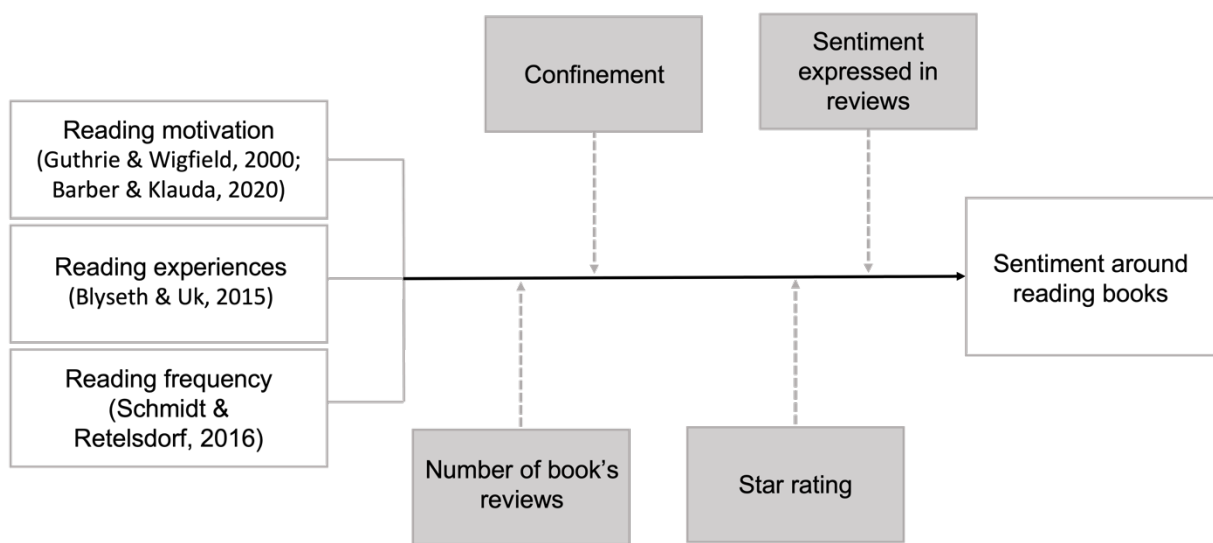


Figure 1 – Conceptual Model

3.2 RESEARCH HYPOTHESES

After carefully analyzing the literature review and keeping in mind the objective of this study, the following assumptions were made.

Knowing that people increased their reading frequency after COVID-19 appeared (Boucher et al., 2020), it would be interesting to study the relationship between the number of reviews and the reading frequency to understand if people who read more are also more willing to share their experience with others. Thus, the first hypothesis is created.

H1: The number of book reviews will increase, positively related to increased reading frequency during confinement.

It is by analyzing online reviews that investigators can find and understand specific consumers' experiences as "most reviews of a product are published online when the consumer is emotionally affected by the purchase of a product"; however, a product becomes unappealing when there is no star ratings or reviews about it (Joseph, 2020). This share of experiences can influence consumers'

choices since they consider these past experiences from other consumers to choose their next book to purchase (Godes & Mayzlin, 2004).

Having this in mind, the second assumption made aims to analyze whether there were changes in consumers' reading experiences before and after the pandemic situation started.

H2: The average book's rating will increase, which is positively related to a possible increase in positive reading experiences during the confinement.

When consumers feel pleasure while reading books, they will be more motivated to read more at the following times (Ross, 2000). In addition, consumers with good experiences, more specifically, satisfied customers, are more willing to write more exhaustive and detailed reviews than unsatisfied customers who transmit their frustration through their reviews (Fei Wu et al., 2011).

Therefore, by analyzing the sentiment around written reviews, it will be possible to understand if the reviews are more positive or negative and whether consumers were more motivated and had more pleasure reading books during the confinement. This will be possible by testing the following hypothesis:

H3: Reviews will be more positive and positively related to increased reading motivation during confinement.

As previously said, COVID-19 and thus the confinement has impacted the books industry and the reading habits of those who had their lives changed when the government decided to implement the lockdown (Boucher et al., 2020; de Sixte et al., 2021; Hirschberg, 2020; Parikh et al., 2020). For this reason, it is important to study whether this pandemic affected the overall sentiment. Thus, the final hypothesis to be tested is presented:

H4: The overall sentiment around reading books will be significantly impacted and positively related to confinement.

In summary, all the hypotheses aim to find whether COVID-19 and confinement affected the overall sentiment around reading books by analyzing the sentiment present in consumers' reviews during this time.

4. METHODOLOGY

The present study aims to conduct a sentiment analysis of 8 books' classified as bestsellers in 2020 through the reviews taken from the Amazon.com website. As this dissertation is focused on the U.S. country, all the reviews were collected in English. The authors Shivaprasad & Shetty described the framework used in their study in 2017 (Shivaprasad & Shetty, 2017).

Before starting this study, four book categories were chosen: 1) Mystery, Thriller, and Suspense; 2) Literature and Fiction; 3) Romance and Humor; 4) Entertainment based on the study conducted by Kinga Jentetics (2020), where the author concluded that "In fiction, the biggest winners were romance (including erotica), thriller, literary, and fantasy books". Although there have also been changes in non-fiction books, this study will only focus on categories that are part of Fiction. Regarding the books, two best sellers from each category were chosen based on the Statista study regarding the U.S. book market (2021), reflecting all the best sellers from 2020 (Watson, 2021). However, as the analysis period is between January 2019 and December 2021, it was necessary to exclude all the books released after January 2019 since the study would have insufficient information if these new books were considered. In addition, audiobooks were also excluded, as they were not part of the objective of the present study.

Therefore, the list of 8 best sellers per categories analyzed in this study is presented below:

Category	Title	Author
Mystery, Thriller & Suspense	Verity Paperback	Colleen Hoover
Mystery, Thriller & Suspense	The Girl Who Lived: A Thrilling Suspense Novel	Christopher Greyson
Literature & Fiction	Where the Crawdads Sing	Delia Owens
Literature & Fiction	The Seven Husbands of Evelyn Hugo: A Novel	Taylor Jenkins Reid
Romance	It Ends with Us: A Novel	Colleen Hoover
Romance	Ugly Love: A Novel	Colleen Hoover
Humor & Entertainment	1984	George Orwell
Humor & Entertainment	Let That Sh*t Go: A Journal for Leaving Your Bullsh*t Behind and Creating a Happy Life (Zen as F*ck Journals)	Monica Sweeney

Table 1 – The eight best sellers per category

Taking the above into account, the following steps were taken: 1) reviews from 8 best sellers were collected from Amazon.com; 2) reviews were pre-processed; 3) it was done an analysis of all the reviews that had meaningful information to this study; 4) it was done a sentiment analysis to extract all the sentiments present on the reviews; 5) it was presented all the results.

Firstly, all the reviews needed for this study were collected on January 17, 2022, through ParseHub¹. This software uses an automatic IP, text, and HTML rotation tool to extract the desired information without codification. All the available reviews were extracted until the last extraction date from the previously chosen eight best sellers, followed by eight files in JSON format that were transformed and saved in XML format to be opened in an XLSX file later. All eight files contain the name and the country of the person who wrote the review, the numerical star rating on a scale from 1 (consumers did not have a good experience with the product) to 5 (consumers had a very good experience with the product), which is the most common range on retailers' websites (Mudambi & Schuff, 2010). They also include the date in MM-DD-YYY format from when the review was done, the title/resume of it, and finally, the actual text, which contains all the comments given to the books. After all the raw data were removed from outside of the temporal window, only the U.S. citizen reviews were kept.

To resume, the table below shows the total number of reviews per category extracted from 2019 to 2021 (N=9,618) after removing all the unnecessary information:

Categories	Jan 2019 – Dec 2019	Jan 2020 – Dec 2020	Jan 2021 – Dec 2021
Mystery, Thriller & Suspense	599	765	1,304
Literature & Fiction	963	1,168	1,280
Romance	127	213	1,170
Humor & Entertainment	424	749	856
Total	2,113	2,895	4,610

Table 2 – The total number of reviews extracted per category

After the steps above, the data were ready to perform the sentiment analysis. The program used for this analysis was MeaningCloud, a SaaS program that, through its plug-ins, allows users to perform text analytics by extracting sentiment aspects from the previously collected data. Before starting the process, it was necessary to install the add-in for Excel, which included their Sentiment analysis API (MeaningCloud, 2020).

The extraction made through the add-in resulted in a new excel sheet with a global analysis of each year's reviews (2019, 2020, and 2021). It then generated information about the polarity of the sentiment five categorizations: the polarity of the comments being that P+ is very positive, P is positive, NEU is neutral, NONE is undetermined, N is negative, and finally, N+ is very negative. Additionally, the analysis given by MeaningCloud also provided Agreement analysis divided by subjectivity and objectivity, which shows if the content of the text is objective or subjective, the Confidence Level (from 0- 100), and finally, the Irony, which helps determine ironic from non-ironic comments.

Given the results obtained through the extraction described above, an exploratory analysis was performed on them to answer the initial questions of this study.

¹ <https://www.parsehub.com>

Three-word clouds were also obtained using the WordItOut² tool, which included the books' reviews to compare the words most mentioned by consumers in 2019, 2020, and 2021. A word cloud is a visual view of the frequency of words used to identify the most frequent words when analyzing written data. It is represented by an agglomeration of words starting with the big ones, which are the most written words, mixed with medium and smaller ones, which are not so representative (Cui et al., 2010).

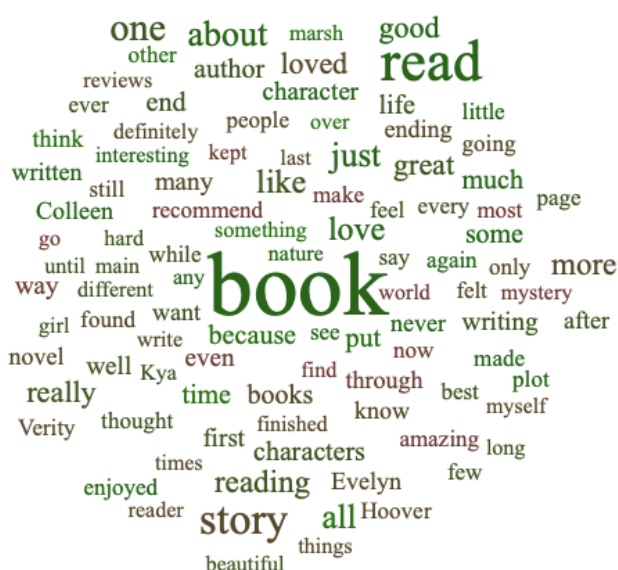
² <https://worditout.com>

5.1 BOOKS REVIEWS BEFORE COVID-19 (2019)

Starting in the year 2019, an analysis of the star ratings given to the eight previously selected books was carried out (table 3), being possible to verify that the most frequently given rating was five stars with 68.2%. On the other hand, the least frequent star rating was two stars (4.3%). However, analyzing the total average ratings, it was a score of 4.3, allowing us to conclude that the evaluation of the experiences that consumers had with the books read and bought during 2019 was positive.

Star rating	Nº of Reviews	% Total	Average Rating
1	150	7.1%	4.3
2	90	4.3%	
3	153	7.2%	
4	278	13.2%	
5	1,442	68.2%	
Total	2,113	100.00%	

The WordItOut platform created a word cloud to detect the most frequently written words in book reviews. The most prominent words were “book”, “read”, “story”, “love”, “like”, “good”, “great”, and “characters”, but many others can also be representative. Many of these words can be associated with positive feelings, allowing us to conclude that, in general, readers had good experiences while reading the analyzed books. There was also a reflection on the characters and some authors, as these words appear to be frequent.



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Figure 3 represents the sentiment analysis results from the 2019 book reviews. For this analysis, all the empty results were removed, the ones with no reviews on them, and the polarity identified as NONE, so it could be possible to study only the sentiments represented and reviews written with non-characters or letters. It was then possible to verify that the extreme negative feeling (N+) is not the one with the most significance. Negative (N), neutral (NEU), and extremely positive (P+) feelings are similar to each other, and the most expressed feeling is positive (P), therefore showing moderate but positive feelings towards books consumers have read. The MeaningCloud platform also extracted the level of trust in the reviews' text, with a global average of 92.90%.

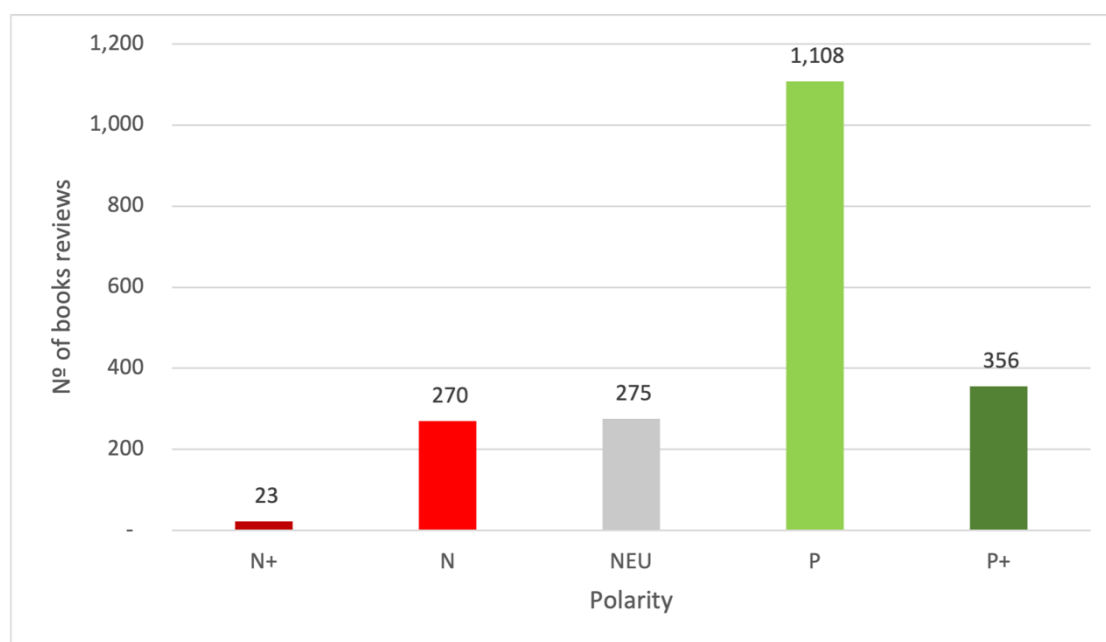


Figure 2 – Consumer sentiment distribution for Books Reviews of 2019

5.2 BOOKS REVIEWS AFTER COVID-19 (2020)

Regarding the year 2020 and starting with the star rating (table 4), it can be seen 1-star rating and a 3-star rating have a similar percentage (5.9% and 6.5%). It was also verified that the most dated rating was 5 stars, with 71.9%, in contrast with the 2 stars, with the lowest percentage (4.6 %). It was also possible to verify that the overall star rating was 4.4, which allows us to conclude that, in general, consumers were satisfied after reading the books in 2020.

Star rating	Nº of Reviews	% of Total	Average Rating
1	171	5.9%	4.4
2	134	4.6%	
3	189	6.5%	
4	320	11.1%	
5	2,081	71.9%	
Total	2,895	100.0%	

Table 2 – Review's star rating of 2020

In the 2020 word-cloud, which was also based on identifying the most frequently written words in consumer reviews, it was found that the words “book”, “read”, “story”, “like”, “love”, “good”, and “recommended” had more emphasis than others also written in the reviews. Once again, consumers generally had a good experience reading the eight books.

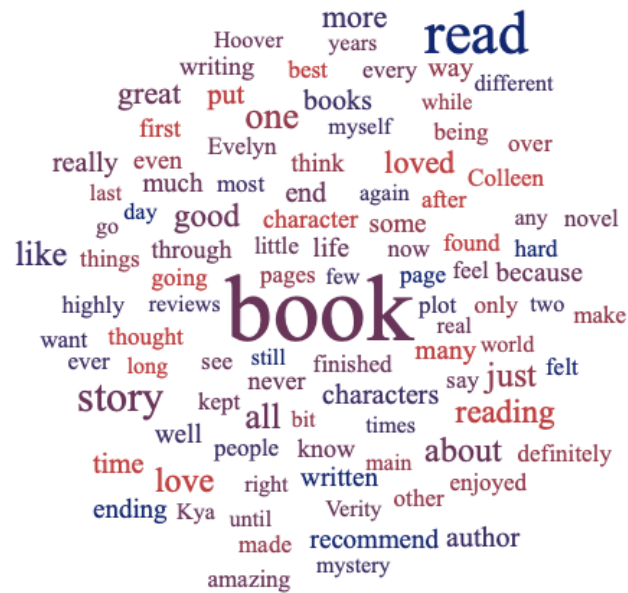


Figure 3 – Word Cloud of books reviews of 2020

Moving on to the analysis of the 2020 sentiments (Figure 5), where all blank results and those represented by NONE in polarity, as well as the reviews with non-characters or letters, were also removed, it was possible to verify that the positive polarity (P) has a significant prominence over the others. In addition, it was found that consumers have more extreme positive feelings than negative ones, but generally, the feelings tend to be more moderate. The overall average confidence for this analysis is 93.73%.

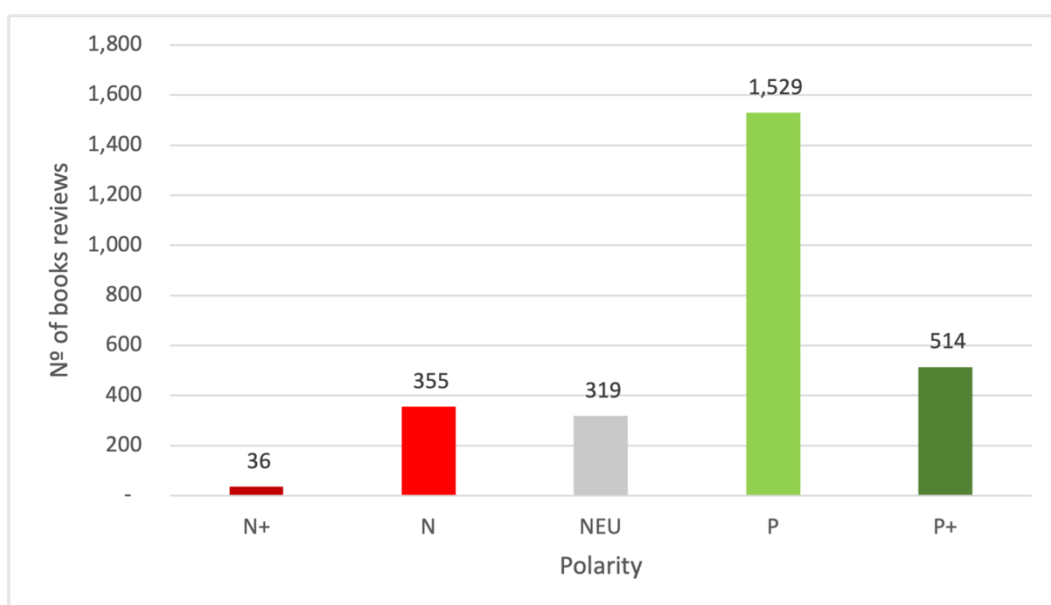


Figure 4 – Consumer sentiment distribution for Books Reviews of 2020

5.3 BOOKS REVIEWS AFTER COVID-19 (2021)

When exploring the year 2021 (table 5), the 5-star rating is the most giving rate, with 77.8%. The remaining rates are below 10%, with the 4-star rating the one with the most percentage after the 5-star rating (9.1%). Therefore, the overall star rating was 4.5, which, once again, allows us to conclude that, in general, consumers were satisfied after reading the books in 2021.

Star rating	Nº of Reviews	% of Total	Average Rating
1	238	5.1%	4.5
2	151	3.3%	
3	218	4.7%	
4	423	9.1%	
5	3,595	77.8%	
Total	4,610	100.0%	

Table 3 – Review's star rating of 2021

Analyzing the year 2021 word-cloud, consumer reviews' most frequently written words were “book”, “read”, “love”, “recommended”, “like”, and “good”. Once again, the positivity in reader's reviews is evident. However, they did not focus so much on the authors.

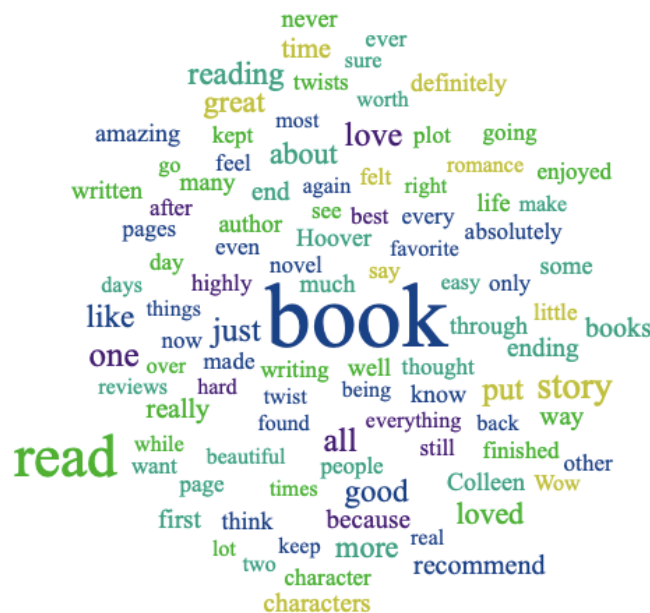


Figure 5 – Word Cloud of books reviews of 2021

After applying the same logic of analysis used for 2019 and 2020, the sentiment analysis for 2021 showed that the positive polarity (P) is the most significant polarity over the others. The distribution is similar to other years, with more extreme positive feelings (P+) than extreme negative feelings (N+). Neutral (NEU) and negative (N) polarities are very similar to each other; however, there are more reviews with negative polarity (N). The overall average confidence for this analysis is 94.18%.

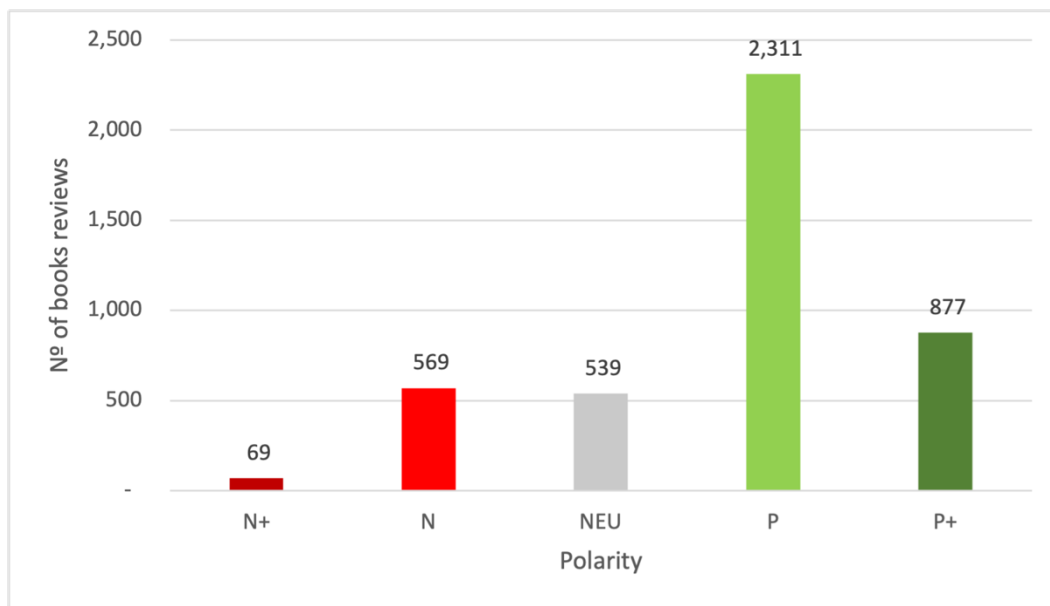


Figure 6 – Consumer sentiment distribution for Books Reviews of 2021

5.4 COMPARISONS

5.4.1 Books reviews Comparisons between 2019, 2020 and 2021

After the analysis done on the reviews of 2019, 2020, and 2021 separately, a comparison was made between the three years to understand the main differences between these years.

Firstly, according to Table 2, it is possible to see an increase in the total number of reviews, with the total number of reviews between January and December 2019 being 2,113; 2020 being 2,895; and 2021 being 4,610. Readers made about 782 more reviews during 2020 and 2,495 more than in 2019 before COVID-19 appeared.

Regarding categories, the category with the highest number of reviews in 2019 and 2020 is Literature & Fiction, which continued to increase in 2021. On the opposite side is the romance category, which had the lowest number of reviews in 2019 and 2020; however, it was the category with the most market growth in 2021. Still analyzing Figure 8, it is possible to see an increase in the total number of reviews in 2020 and 2021 in all categories, so there is a possibility that consumers who have increased their reading frequency after COVID-19 appeared to have also increased their motivation to share their experiences while reading the books.

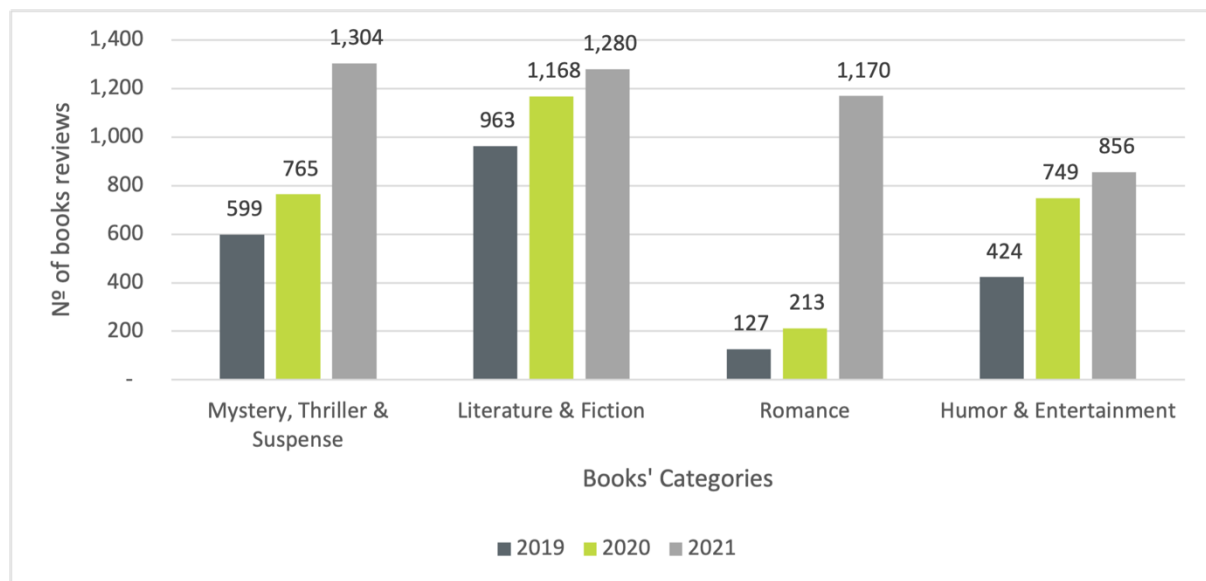


Figure 7 – Comparison of the number of books reviews per category before and after COVID-19

Regarding the Star rating, there was a negligible increase in the average rating throughout the years, starting with 4.3 in 2019, 4.4 in 2020, and 4.5 in 2021. However, comparing the ratings individually, it is possible to verify that a star rating of 5 had a significant increase among all the other rates, which concludes that readers had better experiences and consequently made better evaluations of the books read in 2021.

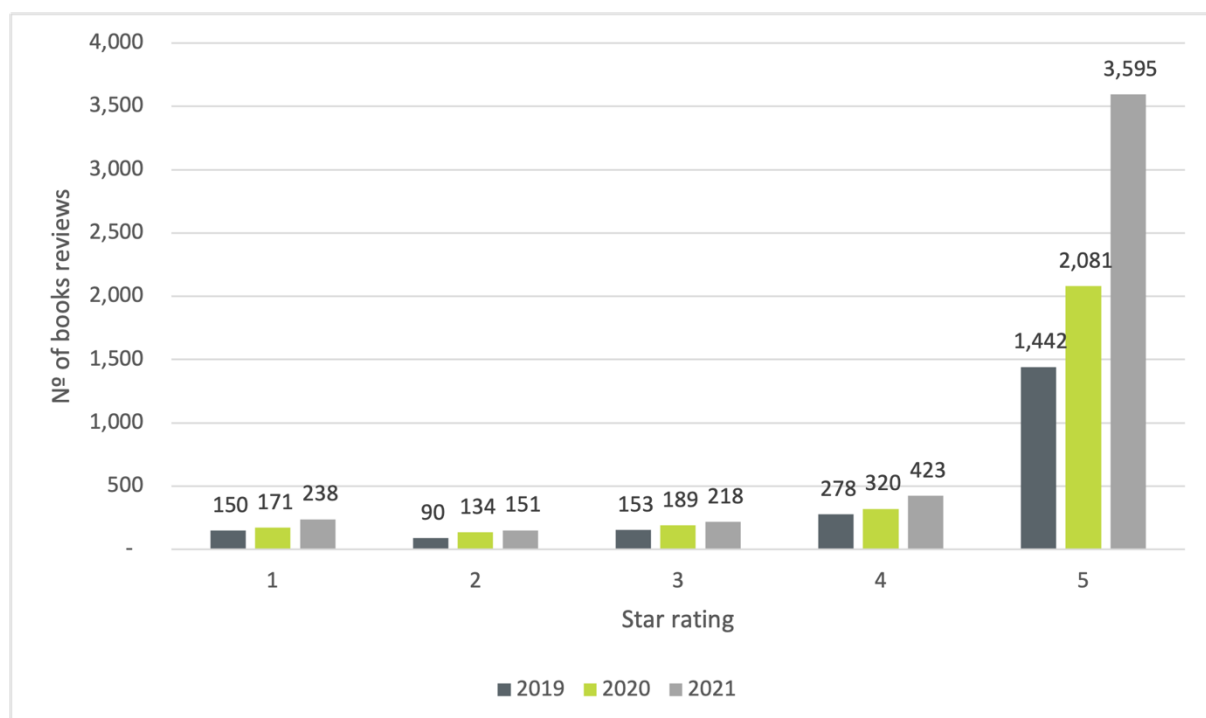


Figure 8 – Comparison of the star rating between 2019, 2020 and 2021

The last comparison is regarding the feelings detected in the texts of the reviews.

Once again, the category verified the most in the comments was the positive (P), having suffered a significant increase in 2020 and 2021. On the other hand, although the increase was not as sharp as the previous one, there was also an increase in the negative polarity (N).

The extreme polarity of very positive (P+) comments experienced a sharper increase than very negative comments. It is possible to conclude that reading books gave readers more positive experiences than negative ones. The extreme negative (N+) polarity is residual compared to the others, so readers did not have terrible experiences while reading the eight analyzed books. The total number of reviews has increased through the years, and the good experiences have also increased the most compared to the negative ones.

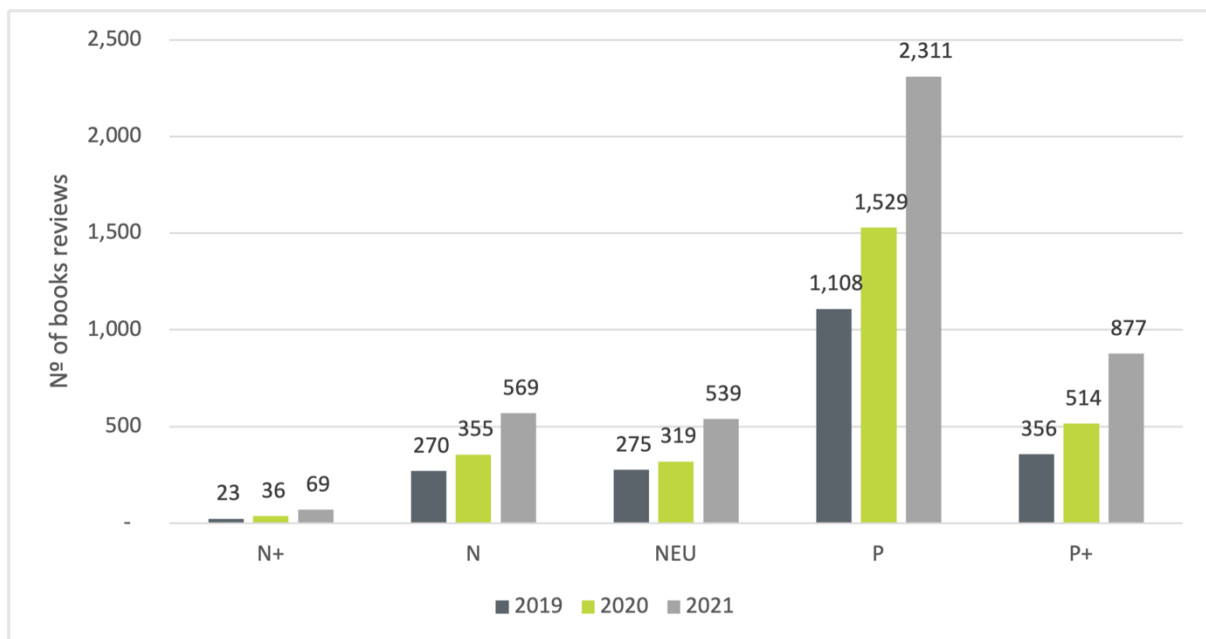


Figure 9 – Comparison of consumers' sentiment toward Books Reviews between 2019, 2020 and 2021

5.4.2 Comparison between the nº of new COVID-19 cases and books reviews

The first cases of COVID-19 began appearing in the United States in January 2020, making a total of 5 new cases that month. The first significant rise in new cases occurred between February and March 2020. In the same period, it was possible to see a substantial drop in the total number of reviews of the books investigated above. Yet, in the same period, these increased again following the increase in the number of COVID-19 cases. In June 2020, the number of reviews again dropped significantly, suffering immediately after a large increase that coincided with a new significant increase in the number of cases. As of September 2020, the number of cases increased again, but the number of reviews behaved oppositely, reaching the lowest value of 2020 in November. The number of COVID-19 cases behaved oppositely, achieving the highest number of cases recorded in the same month. However, the disease continued to spread through the population, reaching maximum values in December 2020 and the number of reviews at the end of the year (CDC, 2020).

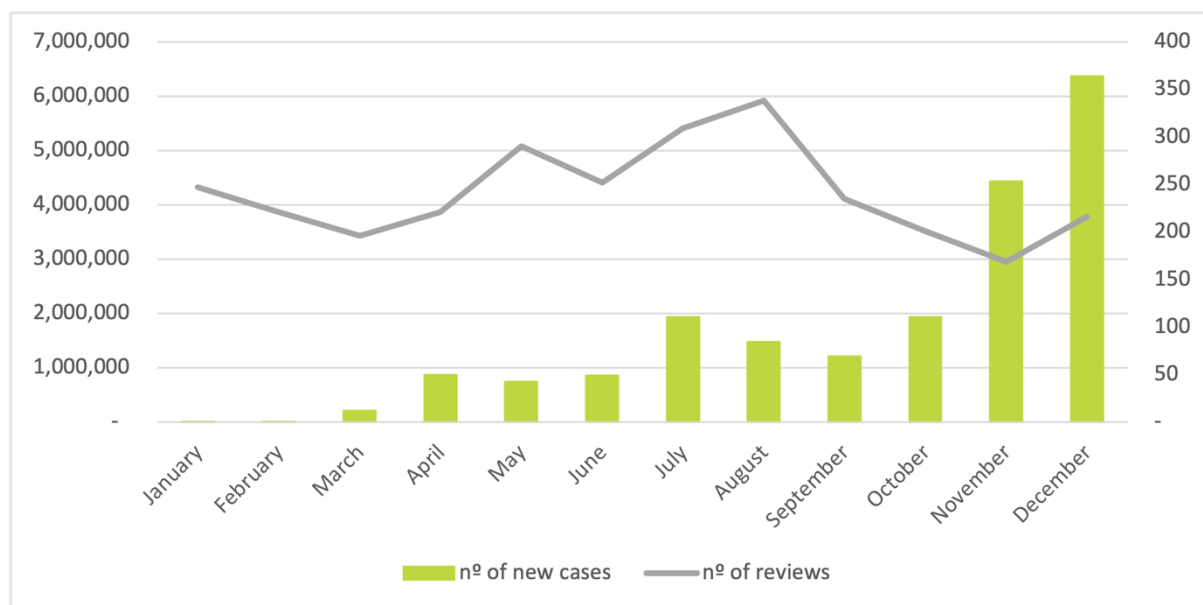


Figure 10 – Comparison between the number of new COVID-19 cases and books reviews of 2020

The year 2021 started with a very high number of cases, similar to those at the close of 2020, but then saw the first significant decline since the pandemic began in February 2021. The number of reviews also went down but remained erratic between February and April, as during this period, they also experienced both decreases and increases. From April 2021 onwards, the number of reviews suffered a very relevant increase, reaching its maximum in August. At the same time, the number of cases, which had reached the lowest value of the year in June, also suffered a sharp rise in August. From that month onwards, the number of reviews and cases decreased until December 2021, when the number of cases increased again, accompanied by the number of reviews.

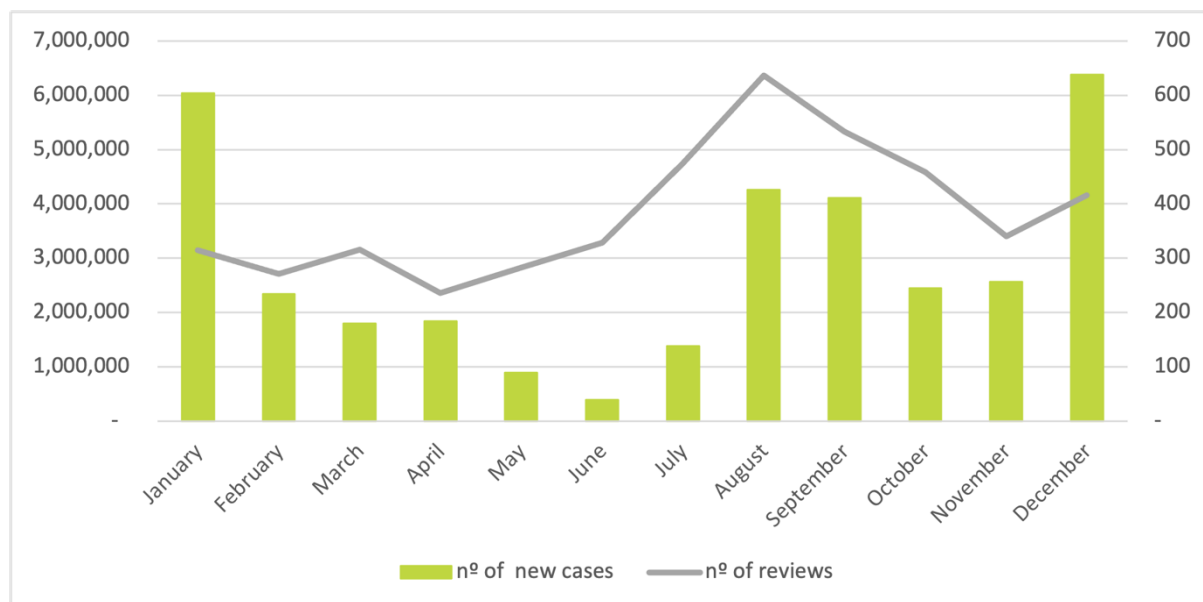


Figure 11 – Comparison between the number of new COVID-19 cases and books reviews of 2021

5.5 DISCUSSION

During the confinement people had more time to read, increasing the reading frequency from one year to another (Boucher et al., 2020; Hirschberg, 2020). When comparing the number of new COVID-19 cases and book reviews observed in Figures 11 and 12, the number of reviews experienced a significant increase immediately after the confinement started on the 15th of March 2020. Furthermore, there was also an increase in the number of reviews in all the categories analyzed, so it can be concluded that the first hypothesis of this study is confirmed for 2020 and that the reading frequency increase is related to the increase in the number of book reviews. However, in 2021, the number of reviews experienced a significant increase, especially in the romance category, immediately after the lockdown ended on the 4th of July 2021, which rejects the first hypotheses for this year. The two different results show that the lockdown highly encouraged people to read more books and that this habit remained intrinsic in consumers even after the confinement ended.

Observing both tables 4, 5, and figure 9, it revealed that there was an increase in positive ratings over the three years, as in 2020, the 5 stars represented 71.9% of the total number of reviews, and in 2021 the same rating represented 77.8%. The same was not verified in 2019 since the 5-star rating only represented 68.2% of the book reviews. Reviews are written when consumers are emotionally affected by their experience with a particular product (Joseph, 2020), and it was, therefore, possible to conclude that consumers in 2020 and 2021 were generally positively affected during their reading as the overall rating averages are positive. Thus, hypothesis 2 is confirmed for both years, 2020 and 2021.

In terms of the feelings expressed in the texts written by consumers, and as analyzed in figure 10, the sentiment expressed in the reviews given to the eight books after the start of the pandemic was more positive than the previous year (2019). Readers shared their experiences during the readings and their perceptions about the books, which were more positive than what was commented on 2019, which allowed concluding that reading books continues to be a unique moment of pleasure and a good experience for consumers (Ross, 2000). Therefore, the third hypothesis is confirmed since people have increased their reading motivation during 2020 and 2021.

Even though people were going through a new and uncertain time, they still managed to get a good time out of the reading, and it had a positive impact on the new reality of being restricted to their homes for several days in a row. However, there are still people who did not have good experiences with certain books, which were affected in a negative and extremely negative way after reading the books previously analyzed. Sharing this kind of experience impacts consumers' decisions, as most consumers consider opinions precisely shared by people who have already read the books before purchasing and reading them (P.-Y. Chen et al., 2008).

According to Chevalier & Mayzlin (2006), negative reviews can be more powerful than positive reviews. However, it is possible to verify in this study that even though there were books with extremely negative ratings, those were not significant enough to influence the 2020 books sales. Finally, hypothesis 4 is also confirmed since it was possible to verify changes in the reviews in the beginning of the confinement. These findings go against the results obtained in the study "The impact of COVID-19 on online product reviews" (2021), as it was found that in the period immediately after the beginning of COVID-19, online ratings decreased at a rate of 7.2% and the percentage of negative emotions increased 25.24%. As such, it can be seen customers tended to be more negative (Kutlubay et al., 2021).

Through these online reviews and emotions shared on the Amazon website, it was possible to understand how the pandemic has impacted the book industry. Consequently, it also provided new insights for book-related companies that want to improve their marketing strategies and for book authors to gain visibility for their work. As such, these results add to the existing literature on online book reviews a new context not experienced since the Internet appeared.

Focusing on the pandemic context, it was found that consumers immediately sought an activity that would make them abstract from their situation and allow them to pass the time in a more pleasurable way while in confinement. These new results will enable us to introduce into the existing literature on consumer behavior during the pandemic a new insight into how human beings can find ways to mitigate situations that are unknown and uncomfortable for them. These immediate responses from consumers positively impacted the book industry as the book sales revenue has increased since 2019 (Watson, 2021) and affected online review writing behavior. However, it is also important to remember that confinement has brought consumers closer to electronic devices, which may have contributed to their willingness to share experiences through online reviews. Bearing in mind these behaviors, companies can create new marketing strategies to be prepared for any possible impact that these factors may have on consumers. The fact that the pandemic has positively impacted one industry does not mean that companies do not have to have contingency measures in place in case the pattern is not so favorable.

Secondly, it is also very important that companies not forget the impact of reviews on people who read them, as they seek advice based on other consumers' experiences. Thus, this study reinforces that constant analysis of reviews is necessary to understand the consumer and focuses mainly on cases of people not having good experiences with certain books, which can further reduce the number of negative reviews. Moreover, it is essential that consumers feel engaged with the books they read so that they can give even more positive reviews, which are not only beneficial for the platforms but are also an incentive for the authors themselves to understand their customers' needs to make them relate positively to their writing. Finally, it was also possible to see that when external changes become part of the consumer's routine, their behaviors tend to return to normal, which allows companies to see that their strategies must be easily alterable to adapt to new realities constantly.

6. CONCLUSION

Online reviews have had a significant impact on products and, consequently, on their sales and reputation. In the case of books, reviews will always affect the book itself, sales, the author, and its reputation. They will influence the decision-making of other consumers who use this channel to share and obtain more information. It turns out that external factors also impact consumers, and it was with this objective that the present study was carried out. This study aimed to understand whether COVID-19 and confinement affected American consumers' perceptions about reading books, based on the sentiment analysis performed in a sample of 9,618 book reviews extracted from Amazon's website.

The results show that readers had an instantaneous reaction right after the start of confinement: the increase in reading, and consequently, the increase in writing reviews about the books they were reading. However, with the pandemic's progress, this behavior became more regular. Thus, external factors, such as the emergence of a pandemic, have almost immediate effects on consumers, and the results of this impact will always be unexpected. In this case, and according to the results obtained throughout the study, it was found that the confinement positively impacted people's perceptions of books and reading as people significantly increased their reading frequency, being more interested and motivated to read during this period.

It was also possible to understand that consumers were more willing to share their experiences with others through online reviews, confirming that eWOM continues to be a well-chosen way to share and search for information when it comes to knowing more about certain books during the decision-making process. However, it was also found that consumers may have different perceptions about each book, even if exposed to the same external changes. This is proved by the number of negative comments that, although not as significant as the positive ones, also increased. As such, it is important to pay careful attention to consumers' needs to maintain a good relationship with them by continually looking for an updated and very user-friendly website that is easy to do reviews. These conclusions allowed us to understand that even though COVID-19 was a much-unexpected situation that nobody was prepared for, it boosted the books industry and allowed people to engage more with this form of leisure. However, paying attention to consumer behavior is always necessary, especially during unexpected situations.

In the future, more research is needed, as one of the major limitations identified was the number of the sample and their representativeness since the data analyzed was obtained through a convenience sample. COVID-19 had a worldwide impact; however, this study only considered one of the affected countries, the U.S., thus making the sample unrepresentative. This focus also brought another limitation: only reviews in English were selected, thus excluding all other possible languages to be studied. Another limitation was the choice of only one product for analysis. There are numerous categories of products, which are targets for comments, and appreciation of their consumers. These products' reviews may also be impacted after the arrival of the pandemic. Thus, by focusing on only one product, it no longer has a significant sample to analyze. Therefore, the fact that the period is relatively recent made it challenging to access up-to-date information, such as detailed information on book revenue in 2021 and 2022. At the time of the analysis of this study, there was not yet sufficient data available regarding the behavior of the book market in 2021 to allow comparisons with previous years.

For future studies, it would be also interesting to analyze products from other categories to understand changes in consumer perceptions of them. When choosing these products, it would also be interesting to understand which were the most useful/used during the pandemic and if these had more positive or negative reviews that had changed in the pre- and post- COVID-19 period. In addition, reinforcing one of the limitations of the study conducted on the impact of COVID-19 on online product reviews (Kutlubay et al., 2021), besides the pandemic situation, many other events can affect consumers and consequently, this can be reflected in their product reviews.

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APPENDICES

Appendix 1: Reviews extraction of the eight books from 2019 (Source: <https://www.amazon.com>) (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgNB915II4?usp=sharing>)

Book	User	Date	Rate	Resume	Review
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	V Mor	Reviewed in the United States on December 16, 2019	3	Pros - funny. Cons - tiny....so overpriced	So-so
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	star	Reviewed in the United States on December 16, 2019	3	Cute little journal	Some of it is a little cheesy or redundant. But it's a gr
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Lacey Baum	Reviewed in the United States on December 23, 2019	3	Good, but damaged.	Love the actual journal but it came damaged. Wrinkle out with a knife. Bought as a gift so no time to reorde
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Amazon Customer	Reviewed in the United States on December 27, 2019	3	Healthy exercises for expansion	I bought it for my 26 year old son for Christmas. He s break up. His words, not mine. Regardless, told him tl While we are enticed to our opinions, this book is nu smile and use your brain to relax relate and release. 1 about the answers. Really think about them. With tha small.
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Cindy_Boo_Boo	Reviewed in the United States on December 24, 2019	4	Just Get the Damn Book!	Not every damn thing in life has to be stoic and regim may just be sweating really small things. Pondering, answering truthfully, pondering, cussing, a (Answer: people who need enemas.) The ONLY thing I wish was different, is that it would I easier. But life ain't always easy I guess. It's a great book!! Get it!
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Cindy_Boo_Boo	Reviewed in the United States on December 24, 2019	4	Just Get the Damn Book!	While we are enticed to our opinions, this book is nu smile and use your brain to relax relate and release. 1 about the answers. Really think about them. With tha small.
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Loulou	Reviewed in the United States on December 27, 2019	4	Good book and reading.	Not every damn thing in life has to be stoic and regim may just be sweating really small things. Pondering, answering truthfully, pondering, cussing, a (Answer: people who need enemas.) The ONLY thing I wish was different, is that it would I easier. But life ain't always easy I guess. It's a great book!! Get it!
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Kristin G	Reviewed in the United States on April 15, 2019	5	Love this journal	Good book and reading. It asks questions in real life language like so many of provoking, allowing for introspection and reflection, ji found in guided journals. Fun, relatable and helpful. V I love this journal. The writing prompts are very imagi creative ways to let shit go. I try to journal every day i

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Appendix 2: Reviews extraction of the eight books from 2020 (Source: <https://www.amazon.com>) (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgNB915II4?usp=sharing>)

Book	User	Date	Rate	Resume	Review
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	karen stevenson	Reviewed in the United States on April 22, 2020	1	Not for me!	I did not realize the language in notebook.
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Laura Birkenbach	Reviewed in the United States on August 21, 2020	1	USED	I am soo embarrassed I bought this as a gift and this is what was written in the journal when she opened it! Quality control needs to be tightened a bit I would say! They live out of state so I have to have them put it in the box to return it, a replacement is being sent out. I just didn't know what to say when I got the text and photos of the "gift"!
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	The Stig	Reviewed in the United States on August 5, 2020	1	Lost Meaning	I'm sure this might be helpful for someone's else, but it doesn't work for me. The language is lost on me personally and it doesn't seem to accelerate quickly enough for me to care. Best wishes to all, however.
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Kzook	Reviewed in the United States on August 8, 2020	1	Love ideas not the foul language	I was excited when I saw this book and the thoughts and ideas... SO SO DISAPPOINTED, all the cursing in this book is offensive to me.love the idea tho. If you make one simillar to this book with same concept and no cursing .. PLEASE let me know. Does anyone else feel like this??
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Sarah	Reviewed in the United States on December 27, 2020	1	Not really that good	Kind of boring. Not what I expected
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Schlitz	Reviewed in the United States on December 27, 2020	1	Fowl language throughout the book	I cannot get past the fowl language this author uses throughout the book! No where did I see her credentials listed which one would expect a self-help author would list. I will be returning this book.
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life					I was pumped for this book to arrive. I'd flirted with the idea of ordering it for a good while before finally pulling the trigger. Unfortunately it just doesn't scratch the right itch. It misses the Mark and seems a bit forced in parts. Some activities are not constructive, superficial and seemingly page fillers. It misses the mark consistently enough that I actually returned it without being moved to fill in any of the pages. It might not make sense, but I feel like it tries really hard yet nurses the wrong wounds. I'm all for peppered language, but the profanity in parts is incredibly forced and does not flow well or

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Appendix 3: Reviews extraction of the eight books from 2020 (Source: <https://www.amazon.com>) (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgNB915II4?usp=sharing>)

Book	User	Date	Rate	Resume	Review
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Cheyne	Reviewed in the United States on April 1, 2021	5	Get this journal you v	3 pages in and I want to write in the whole book! I love buying guided journals beca
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Peyton Carlsen	Reviewed in the United States on July 3, 2021	5	wonderful	a fun book and overall great product
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	P. Cullen	Reviewed in the United States on June 23, 2021	5	Good natured	A good natured affirmation journal that has a lil language for fun! I appreciate the w
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Cassie	Reviewed in the United States on March 3, 2021	5	Love It !!	Absolutely love it ! Was perfect for after how my year was. Was above and beyond v
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Jennifer Flud	Reviewed in the United States on March 15, 2021	5	Brings a smile to you	Absolutely love it! It brings lots of giggle's!
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Raven	Reviewed in the United States on April 30, 2021	5	My new Favorite	Absolutely love this. Its fun, cute, and beneficial
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Samantha campbell	Reviewed in the United States on June 6, 2021	4	Badass book	Amazing best book I have had yet
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Kindle Customer	Reviewed in the United States on January 18, 2021	5	FUN AND FABULOUS	AMAZING BOOK! I BOUGHT ONE FOR MYSELF AS A FOLLOW UP TO THE "ZEN AS F
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Sara	Reviewed in the United States on February 9, 2021	5	Fun	Amazing for assisting with journal writing.
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	chelsea	Reviewed in the United States on April 16, 2021	5	So fun	Amazing I love this so far
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Barb	Reviewed in the United States on January 10, 2021	5	Love	Amazing little journal....
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Ember	Reviewed in the United States on June 12, 2021	5	Amazing journal for	Amazing! So helpful! I even ordered one for my friend as a gift and she loves it! High
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Kristinacl43	Reviewed in the United States on February 22, 2021	4	For the person who n	An awesome surprise for my 17 year old that's reliable for her. (Best mom ever for
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	Marlo Tangney	Reviewed in the United States on February 11, 2021	3	Medication or Self Pi	Apparently you have to be in a good mood to fill these pages out. What I thought mi
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	NewFassionDiva	Reviewed in the United States on January 17, 2021	5	Makes Me Smile	Arrived on time and in great condition. Product in excellent condition and was exactl
Let That Sht Go A Journal for Leaving Your Bullsht Behind and Creating a Happy Life	amanda oats	Reviewed in the United States on March 1, 2021	5	One size does not fit	As a medical professional in mental health..... I think this book is amazing. Just beca

(...)

Appendix 4: Sentiment analysis 2019 (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgNB915II4?usp=sharing>)

Text	Polarity	Agreement	Subjectivity	Confidence	Irony
Review	NONE	AGREEMENT	OBJECTIVE	100	NONIRONIC
So-so	N	AGREEMENT	OBJECTIVE	100	NONIRONIC
Some of it is a little cheesy or re	P	DISAGREEMENT	SUBJECTIVE	92	NONIRONIC
Love the actual journal but it ca	P	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
I bought it for my 26 year old so	NEU	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
While we are entitled to our opi	P	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
While we are entitled to our opi	P	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
Good book and reading.	P	AGREEMENT	SUBJECTIVE	100	NONIRONIC
It asks questions in real life lang	P	AGREEMENT	SUBJECTIVE	97	NONIRONIC
I love this journal. The writing p	P	DISAGREEMENT	SUBJECTIVE	92	NONIRONIC
Everyday, I write 1-2 pages. I alw	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Only one complaint...the cover	N	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
Was going through a really toug	P	DISAGREEMENT	SUBJECTIVE	92	NONIRONIC
I have absolutely loved this boo	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Its a good read but not sure if it	NEU	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
Great release. Funny.	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Great for friends with a sense of	P+	AGREEMENT	OBJECTIVE	98	NONIRONIC
Love this book already!	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
This is an amazing journal. I LOV	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC

(...)

Appendix 5: Sentiment analysis 2020 (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgNB915II4?usp=sharing>)

Text	Polarity	Agreement	Subjectivity	Confidence	Irony
Review	NONE	AGREEMENT	OBJECTIVE	100	NONIRONIC
I did not realize the language in	N	AGREEMENT	OBJECTIVE	92	NONIRONIC
I am soo embarrassed ! I bought	NEU	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
I'm sure this might be helpful fo	P	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
I was excited when I saw this bo	NEU	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
Kind of boring. Not what I expect	N	AGREEMENT	SUBJECTIVE	100	NONIRONIC
I cannot get past the fowl langua	NONE	AGREEMENT	OBJECTIVE	100	NONIRONIC
I was pumped for this book to an	N	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
This journal is a waste of money	N	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
This was an effort to be cheeky t	N+	AGREEMENT	SUBJECTIVE	92	NONIRONIC
This was a waste of money. Does	N	AGREEMENT	OBJECTIVE	92	NONIRONIC
I wanted to love this book. I nee	P	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC
The language is atrocious. Pretty	N	DISAGREEMENT	OBJECTIVE	86	NONIRONIC
Horrible!! Do not buy! I waited	N+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
I'm very disappointed in the bo	N	AGREEMENT	SUBJECTIVE	100	NONIRONIC
My daughter recently purchased	N	DISAGREEMENT	SUBJECTIVE	84	NONIRONIC
The presence of the over used F	N	AGREEMENT	OBJECTIVE	92	NONIRONIC
Pretty pissed. The journal wasn'	N+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
This isnt for someone who has t	NEU	DISAGREEMENT	SUBJECTIVE	76	IRONIC
This isnt for someone who has t	NEU	DISAGREEMENT	SUBJECTIVE	76	IRONIC

(...)

Appendix 6: Sentiment analysis 2021 (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgnB915II4?usp=sharing>)

Text	Polarity	Agreement	Subjectivity	Confidence	Irony
3 pages in and I want to write in	P+	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
a fun book and overall great pro	P+	AGREEMENT	OBJECTIVE	97	NONIRONIC
A good natured affirmation jour	P	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
Absolutely love it ! Was perfect	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Absolutely love it! It brings lots	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Absolutely love this. Its fun, cut	P	AGREEMENT	SUBJECTIVE	97	NONIRONIC
Amazing best book I have had ye	P	AGREEMENT	SUBJECTIVE	100	NONIRONIC
AMAZING BOOK! I BOUGHT ONE	P	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Amazing for assisting with journ	P	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Amazing I love this so far	P+	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Amazing little journal....	P	AGREEMENT	SUBJECTIVE	100	NONIRONIC
Amazing! So helpful! I even orde	P	AGREEMENT	SUBJECTIVE	98	NONIRONIC
An awesome surprise for my 17	P+	DISAGREEMENT	SUBJECTIVE	94	NONIRONIC
Apparently you have to be in a g	P	DISAGREEMENT	SUBJECTIVE	86	NONIRONIC

Appendix 7: Sentiment Analysis 19vs20vs21 (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGI7VmUdgnB915II4?usp=sharing>)

	2021						2020						2019				
Text	Polarity	Agreement	Subjectivity	Confidence	Irony	Text	Polarity	Agreement	Subjectivity	Confidence	Irony	Text	Polarity	Agreement	Subjectivity		
As a medical N		DISAGREEMENT	SUBJECTIVE	86	NONIRONIC	I did not real N		AGREEMENT	OBJECTIVE	92	NONIRONIC	So-so N		AGREEMENT	OBJECTIVE		
As a medical N		DISAGREEMENT	SUBJECTIVE	86	NONIRONIC	Kind of borin N		AGREEMENT	SUBJECTIVE	100	NONIRONIC	Only one con N		DISAGREEMENT	SUBJECTIVE		
Cute journal N		AGREEMENT	SUBJECTIVE	100	NONIRONIC	I was pumpe N		DISAGREEMENT	SUBJECTIVE	86	NONIRONIC	It was great N		DISAGREEMENT	SUBJECTIVE		
Cute, funny, N		DISAGREEMENT	SUBJECTIVE	94	NONIRONIC	This journal i N		DISAGREEMENT	SUBJECTIVE	86	NONIRONIC	Hysterical n N		DISAGREEMENT	SUBJECTIVE		
Did not like t N		AGREEMENT	SUBJECTIVE	92	NONIRONIC	This was a w N		AGREEMENT	OBJECTIVE	92	NONIRONIC	Very funny g N		DISAGREEMENT	SUBJECTIVE		
Everyone shc N		DISAGREEMENT	OBJECTIVE	94	NONIRONIC	The langua N		DISAGREEMENT	OBJECTIVE	86	NONIRONIC	Every paragr N		DISAGREEMENT	OBJECTIVE		
I actually like N		DISAGREEMENT	SUBJECTIVE	76	IRONIC	I'm very disa N		AGREEMENT	SUBJECTIVE	100	NONIRONIC	Not at all as N		DISAGREEMENT	SUBJECTIVE		
I couldn't be N		DISAGREEMENT	SUBJECTIVE	84	NONIRONIC	My daughter N		DISAGREEMENT	SUBJECTIVE	84	NONIRONIC	Alot of great N		AGREEMENT	OBJECTIVE		
I get the idei N		DISAGREEMENT	OBJECTIVE	86	NONIRONIC	The presenc N		AGREEMENT	OBJECTIVE	92	NONIRONIC	This is a fun N		DISAGREEMENT	SUBJECTIVE		
I use this jou N		DISAGREEMENT	OBJECTIVE	84	NONIRONIC	It's torn. Plea N		AGREEMENT	OBJECTIVE	100	NONIRONIC	I barely mad N		DISAGREEMENT	OBJECTIVE		
It's a cute bo N		DISAGREEMENT	SUBJECTIVE	94	NONIRONIC	Was a little i N		AGREEMENT	OBJECTIVE	98	NONIRONIC	I just receive N		AGREEMENT	OBJECTIVE		
Just not wha N		AGREEMENT	SUBJECTIVE	97	NONIRONIC	I should hav N		DISAGREEMENT	OBJECTIVE	84	NONIRONIC	Ridiculous pr N		DISAGREEMENT	OBJECTIVE		
Maybe i'm o N		AGREEMENT	SUBJECTIVE	92	NONIRONIC	For me this v N		AGREEMENT	OBJECTIVE	100	NONIRONIC	Don't waste N		DISAGREEMENT	SUBJECTIVE		
My book was N		AGREEMENT	OBJECTIVE	100	NONIRONIC	Quick shippi N		DISAGREEMENT	SUBJECTIVE	86	NONIRONIC	This book go N		DISAGREEMENT	SUBJECTIVE		
Not sure exa N		AGREEMENT	SUBJECTIVE	100	NONIRONIC	I've barely e N		AGREEMENT	OBJECTIVE	100	NONIRONIC	The book wa N		DISAGREEMENT	SUBJECTIVE		
Pretty good, N		AGREEMENT	SUBJECTIVE	92	NONIRONIC	Funny as hel N		DISAGREEMENT	SUBJECTIVE	94	NONIRONIC	The characte N		DISAGREEMENT	SUBJECTIVE		

Appendix 8: Comparison n° cases x n° reviews (Source https://covid.cdc.gov/covid-data-tracker/#trends_dailycases) (available on Google Drive: <https://drive.google.com/drive/folders/1M9REgMUNaNC6LrjXGf7VmUdgnB915II4?usp=sharing>)

2020												2021											
Month												Month											
Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	18	28,444	32,037	17,234	59,343	56,533	39,216	47,512	74,280	193,329	1	227,576	129,006	51,332	74,228	48,685	9,113	18,706	61,907	198,865	121,197		
3	35	29,975	28,293	20,803	55,576	51,464	42,358	51,183	87,543	210,182	2	227,022	121,951	54,373	71,055	36,897	16,300	16,399	102,576	182,302	83,832		
4	51	31,781	26,744	21,007	40,355	45,486	45,451	48,030	98,902	218,374	3	204,662	108,873	45,984	63,897	33,265	18,433	12,338	110,696	183,630	68,550		
2	70	32,545	21,522	20,625	45,582	51,914	51,323	35,628	114,981	225,900	4	125,381	125,381	65,482	45,672	42,761	18,708	10,481	127,765	144,560	86,125		
-	78	27,086	22,897	24,707	40,039	56,058	41,570	41,728	123,761	206,752	5	243,745	124,977	64,207	56,980	45,188	14,709	9,273	128,748	125,578	104,380		
-	130	28,635	25,469	23,708	51,111	54,806	39,693	41,396	134,448	177,578	6	259,370	108,787	57,671	64,198	43,280	11,095	20,093	126,601	109,515	107,025		
1	146	29,268	29,339	17,736	56,224	62,246	25,076	54,358	125,456	183,727	7	270,081	91,994	43,522	76,065	44,960	10,010	22,788	120,822	117,838	112,565		
-	214	34,309	28,089	18,071	65,109	51,645	28,630	55,648	111,924	228,011	8	293,290	82,384	43,386	76,458	37,096	14,389	28,063	97,540	109,911	107,817		
-	391	34,878	25,915	18,383	62,264	46,574	35,308	59,180	125,288	222,507	9	255,928	91,565	52,908	77,491	27,523	19,299	27,766	93,487	184,761	71,799		
-	497	32,729	21,644	22,335	68,480	46,258	38,867	54,001	147,696	209,146	10	224,898	99,143	62,134	68,789	24,667	16,007	20,905	136,259	171,850	60,220		
-	529	32,115	19,711	22,894	67,833	59,052	44,391	44,795	154,275	247,454	11	204,512	99,437	60,191	54,397	33,174	14,136	16,719	144,600	155,300	74,262		
2	735	27,184	24,138	28,383	59,763	55,162	40,245	50,052	162,869	216,791	12	218,017	97,852	64,283	62,071	36,134	12,364	29,267	152,294	116,750	89,628		
1	951	25,013	17,662	26,602	56,218	52,103	33,019	50,607	178,166	181,644	13	228,172	84,924	52,380	71,514	40,447	8,762	35,181	147,286	112,453	96,111		
1	1,218	25,183	14,432	20,526	64,963	56,139	34,648	58,069	164,365	198,205	14	223,766	66,764	47,437	71,935	35,540	8,357	38,484	140,679	162,522	96,561		
-	1,177	25,307	26,890	20,647	72,253	51,725	37,182	63,183	139,643	200,634	15	240,094	58,375	43,737	73,253	29,751	12,826	40,701	111,368	163,171	90,786		
-	2,347	31,771	25,776	24,786	69,903	41,952	44,837	69,414	153,100	241,898	16	219,399	57,460	51,975	72,239	21,512	13,220	42,449	109,443	167,584	64,172		
2	3,206	30,310	19,567	25,866	77,072	41,895	45,385	54,749	167,808	247,117	17	184,319	63,956	61,709	78,447	19,579	13,514	32,313	150,831	157,934	49,451		
5	4,891	27,721	23,017	28,639	67,346	41,687	48,181	49,120	171,687	237,220	18	151,680	68,532	62,869	50,091	27,875	11,983	28,335	167,908	125,446	69,283		
3	6,123	27,061	21,701	33,220	60,064	47,071	42,478	62,077	190,404	203,060	19	149,017	73,726	62,461	36,029	27,838	12,378	45,181	175,660	97,863	80,545		
1	7,543	26,153	24,621	33,524	58,638	46,816	34,281	59,086	194,874	187,579	20	188,305	66,160	58,390	57,845	28,047	9,084	51,097	167,482	92,541	76,192		
5	9,126	25,307	25,785	27,243	61,613	47,828	41,732	70,224	174,413	183,795	21	188,574	55,714	45,384	64,329	28,130	8,718	61,542	144,766	135,117	87,292		
8	10,847	31,224	25,976	28,787	72,447	41,768	50,042	75,009	151,214	199,106	22	191,212	56,464	48,512	62,911	22,271	13,440	71,851	127,722	132,635	81,604		
1	10,847	31,309	21,169	37,872	73,731	37,129	42,682	61,951	159,973	226,905	23	164,998	70,426	58,016	63,091	15,968	11,892	49,738	116,484	136,379	36,711		
4	11,394	34,983	21,438	37,248	73,395	36,194	46,383	76,560	175,863	202,807	24	144,409	72,797	68,393	52,345	15,378	15,590	53,967	163,460	133,308	28,138		
4	14,097	32,833	19,523	47,167	61,501	40,802	50,200	65,934	195,642	159,679	25	134,317	71,864	65,986	41,487	24,358	15,099	43,509	176,091	98,349	84,099		
8	18,546	26,640	16,811	46,544	58,480	47,283	42,880	69,950	144,958	150,056	26	146,801	73,573	75,200	39,950	23,724	13,246	71,439	187,240	77,717	102,060		
5	20,221	24,028	19,777	43,437	53,566	47,039	35,263	76,025	165,824	154,802	27	159,368	68,096	63,440	50,529	22,205	16,255	86,157	182,962	101,768	83,848		
4	20,826	23,773	24,174	37,543	59,115	47,058	39,237	85,065	144,494	178,493	28	156,363	52,102	53,447	55,344	24,852	10,605	89,582	153,251	116,012	81,667		
9	26,234	27,664	23,711	38,038	64,954	41,940	38,979	91,570	141,530	209,246	29	164,546	-	58,441	56,320	15,694	15,695	99,682	118,929	116,508	88,272		
-	15,297	31,415	24,040	46,649	66,787	36,706	45,982	98,037	152,679	227,813	30	137,760	-	61,776	55,667	12,373	11,646	105,113	133,413	123,033	34,502		
-	23,739	-	21,262	-	68,715	39,217	-	93,390	-	230,205	31	123,558	-	71,038	-	9,345	-	81,121	176,980	-	25,438		
73	212,484	877,794	742,930	860,684	1,938,140	1,476,650	1,215,519	1,895,091	4,432,600	6,370,015	Total	6,041,140	3,343,283	1,795,964	1,846,980	898,712	393,243	1,381,818	4,257,350	4,111,150	2,444,192		

Appendix 6: Daily Trends in Number of COVID-19 Cases in The United States Reported to CDC (Source: Source https://covid.cdc.gov/covid-data-tracker/#trends_dailycases)

