

A Descriptive Analysis of Influencer's Impact on Digital Marketing and E-Commerce

Sumeyye Kurtulus

*Department of Information Systems and Technologies
University of Bilkent
Çankaya, Ankara
sumeyye.kurtulus@ug.bilkent.edu.tr*

Yara Abouelenin

*Department of Information Systems and Technologies
University of Bilkent
Çankaya, Ankara
yara.abouelenin@ug.bilkent.edu.tr*

Abstract - The fact that social media platforms dominate our daily life is concrete. Following this factual point, this study aims to investigate the undeniable effect of social media platforms and influencers on e-commerce and overall consumer behaviour. Shortly, this paper identifies the online shopping trends with their starting point and evolution over time considering the impact of the COVID-19 pandemic and lockdowns by focusing on the mobility of shopping as a whole. It also addresses the cost of digital advertisements in terms of their dynamic structure and results including success rates with the help of data gathered from real-life examples. Most importantly, this paper will discuss to what extent consumers are affected and convinced by the social media influencers to buy the products advertised by them.

Index Terms - *influencer, social media, e-commerce, digital marketing, technology*

I. INTRODUCTION

Considering the fact that influencers are playing a great role in the development of digital marketing, this paper will mainly focus on influencers' impact on a customer's behaviour and the factors that cause a consumer to purchase a product endorsed by an influencer. Although the most important contribution of this paper is around this fact, we are identifying the effect of the pandemic, the cost of digital marketing, and expected future trends. This kind of structure creates a suitable context to explain everything regarding the main point of this paper. Also, the charts and statistics derived from various resources add another crucial dimension to this study.

II. HYPOTHESES

H1: Expertise of the influencer positively affects a consumer's purchase intention.

H2: The trustworthiness of the influencer positively affects a consumer's purchase intention.

H3: Likability of the influencer positively affects a consumer's purchase intention.

H4: Information quality of the influencer positively affects a consumer's purchase intention.

H5: Entertainment value of the influencer positively affects a consumer's purchase intention.

III. METHODOLOGY

As emphasized before, this paper focuses on analyzing and demonstrating how people's behaviour towards e-commerce has changed with the influencer dimension over the years. Technically speaking, both qualitative such as differentiating genders and countries and quantitative data like the amount of money spent on online advertising has been used. Our method was collecting secondary data from various sources for the sake of diversity. This study does not consider either a specific area or a country. Since e-commerce is an ongoing trend by itself, this paper evaluates the case with different datasets from different countries such as the EU (European Union) Countries, India and the United States.

The datasets utilized from Eurostat.com are based on both quantitative and qualitative data. Their sampling method is expressed as random sampling. Also, they update the data annually and the unit of measurement is the percentage of individuals in each European country. The other datasets that we obtained from statista.com, dataworld.com, data.Mendeley.com and kaggle.com have different sampling methods and units of measurement.

Before going into the analysis phase, the datasets were cleaned from missing data and outliers. Afterwards, we used RStudio to implement R codes and plotted the graphs to demonstrate the data.

For the main hypothesis of our research, the data set we used was collected in India, Delhi NCR, using a questionnaire through Google Forms. The initial sample size was 127, but after filtering the data by people who use social media, the sample size became 66 individuals. The survey included 23 main questions in which an individual would choose from a 5-point Likert scale from "strongly agree" to "strongly disagree." The online survey was conducted in February and March 2020.

IV. DESCRIPTIVE ANALYSIS

This section is created for providing a descriptive analysis of the data that we have used for this study. *Table 1* demonstrates the change in the online purchase rates across European countries between the years 2020-2021. The data is derived from eurostat.com.

Table 2 shows 2020 online purchase rates in Europe by classifying the data according to the product types. *Table 3*, which

is linked to table 2, demonstrates 2021 online purchase rates across Europe.

On one hand, *table 4* gives details about the change in online purchases between the years 2010-2021 based on four specific countries Belgium, Bulgaria, Czechia, and Denmark. On the other hand, *table 5* gives details considering all EU countries at a time. In addition, the dataset demonstrated in *table 6* illustrates the spending on online advertisement between the years 2006-2020 in Europe.

	n	mean	sd	median	trimmed mean	mad	min	max	1st. Qua	3rd Qua	NAs	skewness	kurtosis	se
2020	34	15.41	8.25	14.50	14.82	9.64	3	35	8.50	20.50	4	0.61	-0.42	1.41
2021	36	16.19	7.84	15.00	15.83	8.90	4	37	9.75	23.00	2	0.42	-0.54	1.31

Table 1. Online Purchase Change Between years 2020-2021 in Europe [29]

	n	mean	sd	median	trimmed mean	mad	min	max	1st. Qua	3rd Qua	skewness	kurtosis	se
<i>clothes, shoes, or accessories</i>	38	12.66	7.06	12.50	12.56	8.15	1	26	17.00	34.75	-0.09	1.05	1.15
<i>furniture, home accessories or gardening products</i>	38	11.13	6.15	11.00	11.22	7.41	1	20	5.00	16.25	-0.10	-1.40	1.00
<i>printed books, magazines or newspapers</i>	38	11.21	6.56	10.00	11.19	8.90	1	22	4.00	18.25	0.08	-1.39	1.06
<i>deliveries from restaurants</i>	38	12.45	6.62	11.00	12.56	8.15	1	23	5.75	19.00	-0.01	-1.27	1.07

<i>music as a streaming service or downloads</i>	38	8.82	5.66	9.50	8.75	8.15	1	18	2.00	16.00	0.06	-1.51	0.92
<i>films or series</i>	38	12.21	7.32	11.50	12.28	10.38	1	23	4.25	18.75	-0.08	-1.37	1.19

Table 2. 2020 Online Purchase in Europe According to Product Types [30]

	n	mean	sd	median	trimmed mean	mad	min	max	1st. Qua	3rd Qua	skewness	kurtosis	se
<i>clothes, shoes, or accessories</i>	38	14.00	7.64	13.5	13.97	8.90	1	28	26.25	43.50	0.05	-1.05	1.24
<i>furniture, home accessories or gardening products</i>	38	13.74	7.72	12.5	13.75	8.90	1	26	7.00	21.00	0.10	-1.23	1.25
<i>printed books, magazines or newspapers</i>	38	11.39	6.80	11.00	11.28	8.90	1	23	7.50	19.00	0.18	-1.26	1.10
<i>deliveries from restaurants</i>	38	12.89	7.76	12.00	12.81	9.64	1	26	9.50	26.75	0.10	-1.31	1.26
<i>music as a streaming service or downloads</i>	38	10.21	6.92	9.50	10.06	9.64	1	21	4.75	20.50	0.17	-1.50	1.12
<i>films or series</i>	38	12.24	7.80	11.0	12.00	8.90	1	26	7.75	23.25	0.31	-1.25	1.26

Table 3. 2021 Online Purchase in Europe According to Product Types [30]

	n	mean	sd	median	trimmed mean	mad	min	max	1st. Qua	3rd Qua	skewness	kurtosis	se
Belgium	12	56.25	11.58	56.00	56.20	13.34	38	75	47.25	62.25	0.11	-1.26	3.34
Bulgaria	12	17.50	8.66	17.5	17.2	7.41	5	33	11.25	21.25	0.31	-1.01	2.50
Czechia	12	48.92	16.25	46.0	48.5	19.27	27	75	35.25	60.25	0.22	-1.49	4.69
Denmark	12	79.58	7.03	79.5	79.6	6.67	68	91	76.00	84.00	-0.6	-1.15	2.03

Table 4. Online Purchase Change Between years 2010-2021 in Belgium, Bulgaria, Czechia, and Denmark [31][32]

	n	mean	sd	median	trimmed mean	mad	min	max	1st. Qua	3rd Qua	skewness	kurtosis	se
Percentage	12	54.0	9.57	54.0	53.9	11.86	40	69	46.50	60.75	0.09	-1.46	2.76

Table 5. Online Purchase Change Between years 2010-2021 in Europe [31][32]

	n	mean	sd	median	trimmed mean	mad	min	max	1st. Qua	3rd Qua	skewness	kurtosis	se
Percentage	15	35.07	19.40	331.80	34.54	19.72	7.70	69.40	20.20	48.05	0.33	-1.25	5.01

Table 6. Online Advertisement Spending Between years 2006-2020 in Europe [33]

Regarding the survey data that we used, *table 7* shows the respondent's demographic profiles like gender, age and educational qualification. *Table 8* shows each question's mean, standard deviation, median, minimum and maximum values, range, skewness, kurtosis and standard error. On the other hand, *table 9* shows each of the five category's statistical information. Each question ranges from 5 to 1 starting from strongly agree (5) to strongly disagree (4). For example, expertise maximum points

are 20 as they are four questions, each out of 5. If a person stated strongly agrees with all five questions the total will be 20.

<i>Profile</i>	<i>Characteristic</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Male	27	40.91
	Female	39	59.09
Age	Up to 18 years	3	4.55
	19-24 years	47	71.21
	25-30 years	14	21.21
	Above 30 years	2	3.03
Educational Qualification	Undergraduate	19	28.79
	Graduate	21	31.82
	Post Graduate	23	34.85
	Doctorate	1	1.52
	Professional Diploma	2	3.03

Table 7. Survey's respondent's demographic profile [20].

<i>Questi ons</i>	<i>n</i>	<i>mean</i>	<i>sd</i>	<i>median</i>	<i>min</i>	<i>max</i>	<i>range</i>	<i>skewness</i>	<i>kurtosis</i>	<i>se</i>
<i>Q1</i>	66	2.24	1.35	1.5	1	4	3	0.3	-1.75	0.17
<i>Q2</i>	66	2.33	1.46	1	1	4	3	0.21	-1.94	0.18
<i>Q3</i>	66	2.26	1.41	1	1	4	3	0.3	-1.83	0.17
<i>Q4</i>	66	2.56	1.45	3	1	4	3	-0.09	-1.95	0.18
<i>Q5</i>	66	2.36	1.31	2	1	4	3	0.17	-1.73	0.16
<i>Q6</i>	66	2.12	0.98	2	1	4	3	0.05	-1.5	0.12
<i>Q7</i>	66	2.5	1.35	3	1	4	3	-0.06	-1.82	0.17
<i>Q8</i>	66	2.42	1.37	3	1	4	3	0.03	-1.86	0.17
<i>Q9</i>	66	2.15	0.96	3	1	4	3	-0.2	-1.73	0.12
<i>Q10</i>	66	2.76	1.37	3	1	4	3	-0.38	-1.73	0.17
<i>Q11</i>	66	2.59	1.36	3	1	4	3	-0.15	-1.81	0.17
<i>Q12</i>	66	2.76	1.4	4	1	4	3	-0.36	-1.79	0.17
<i>Q13</i>	66	2.5	1.42	3	1	4	3	-0.02	-1.91	0.17
<i>Q14</i>	66	2.53	1.47	3	1	5	4	0	-1.9	0.18
<i>Q15</i>	66	2.11	0.99	3	1	4	3	-0.12	-1.82	0.12
<i>Q16</i>	66	2.21	1.32	1.5	1	5	4	0.37	-1.55	0.16
<i>Q17</i>	66	2.18	0.98	3	1	4	3	-0.26	-1.74	0.12
<i>Q19</i>	66	2.08	1.35	1	1	4	3	0.57	-1.57	0.17
<i>Q21</i>	66	2.36	1.3	2.5	1	4	3	0.11	-1.74	0.16
<i>Q22</i>	66	2.35	1.33	2	1	5	4	0.21	-1.64	0.16
<i>Q23</i>	66	2.5	1.36	3	1	4	3	-0.04	-1.84	0.17

Table 8. Each question's descriptive statistical values [20].

<i>Construct</i>	<i>Items</i>	<i>n</i>	<i>mean</i>	<i>sd</i>	<i>median</i>	<i>min</i>	<i>max</i>	<i>range</i>	<i>skewness</i>	<i>kurtosis</i>	<i>se</i>
<i>Expertise</i>	Q1 Q2 Q3 Q4	66	16.92	2.42	17	8	20	12	-0.91	1.71	0.3
<i>Trustworthiness</i>	Q5 Q6 Q7	66	12.11	2.49	12	5	15	10	-0.83	0.46	0.31
<i>Likability</i>	Q8 Q9	66	8.48	1.44	9	3	10	7	-0.99	1.41	0.18
<i>Information Quality</i>	Q10 Q11 Q12 Q13	66	17.03	2.99	17.5	8	20	12	-0.87	0.22	0.37
<i>Entertainment Value</i>	Q14 Q15 Q16 Q17	66	16.95	2.71	17	4	20	16	-1.9	6.24	0.33
<i>Purchase Intention</i>	Q19 Q21 Q22 Q23	66	16	3.16	16	8	20	12	-0.74	0.11	0.39

Table 8. The five attribute's descriptive statistical values [20].

A) Origin and Transformation of Online Shopping

Taking the e-commerce case into consideration in terms of its starting point and evolution, some key points should be addressed to prove that online shopping has become an explicit reality in daily life. Namely, the entrepreneurial attempt to form an online shopping frame named as NetMarket in 1994 can be accepted as the start point of online purchase. Following this initiation, many other big companies such as Amazon, Rakuten, and Alibaba entered the market [1]. Shortly, the mobility of life itself is the origin of online shopping. In addition, not only the consumer behaviour changed, but also the companies have changed how they conduct their business. For this reason, people who are using social media and other equivalent platforms frequently are the absolute targets of digital marketing strategies. Considering the fact that shopping has evolved with an online dimension as everything in daily life started shifting to mobile platforms like social media, people started to shape their purchasing behaviour accordingly. The other important emphasis is that those marketing strategies are being improved with the use of new technologies gradually. At this point, the type and purpose of platforms are important parameters to identify the level of online shopping transformation. Furthermore, the near future of online shopping and digital marketing will probably include a wider scope of new technologies like augmented reality and chatbots created with AI [2].

Another issue is about what kind of products people buy. *Figure 1* shows the change in the percentages according to the product types.

As emphasized before, the more mobile we become, the more improvement occurs in terms of purchasing behaviour. The other important point is that companies have utilized this crucial change in customer behaviour by transitioning their business strategies to

social media platforms [2]. In other words, the companies reformat their approach to influence their customers by using the benefits of mobility which include shopping applications and social media platforms. Namely, they apply an integration process between consumers' daily life and the digital facilities they use during the day.

As we can infer from *figure 2* and *figure 3*, the percentage of people shopping online increased gradually over the years. The first plot shows how people in Belgium, Bulgaria, Czechia, and Denmark changed their attitudes toward online shopping and the e-commerce sector enlarged even more especially after the year 2019 when the COVID-19 outbreak emerged. Since the data of these particular countries have diversity in themselves, analysing them gives a piece of clear and brief information regarding all European countries. For demonstrating how online purchasing evolved in Europe, the second chart shows the big peak from 2010 to 2021.

Back in the time before the industrial revolution, customers used to be treated in person which is different from the times after the revolution. However, some companies like Nike provide the same opportunity with the apps they developed which impress the consumers to be treated in a customized way particularly [3]. Hence, the customers can reach more variety of goods when they shop within a digitalized ecosystem. The other decent example is how Shopify has designed their system so that they merge social media and e-commerce somehow [3]. Also, they have a chance to use a simpler way to buy what they wish thanks to these enhancements [4]. Overall, customers are convinced to do the shopping online because of several reasons as this paper will discuss further in detail.

Beyond the reasons customers propose to choose online shopping, companies use new trends and technologies such as artificial intelligence, machine learning, business-to-business format, and other information-gathering tools [2]. At this point,

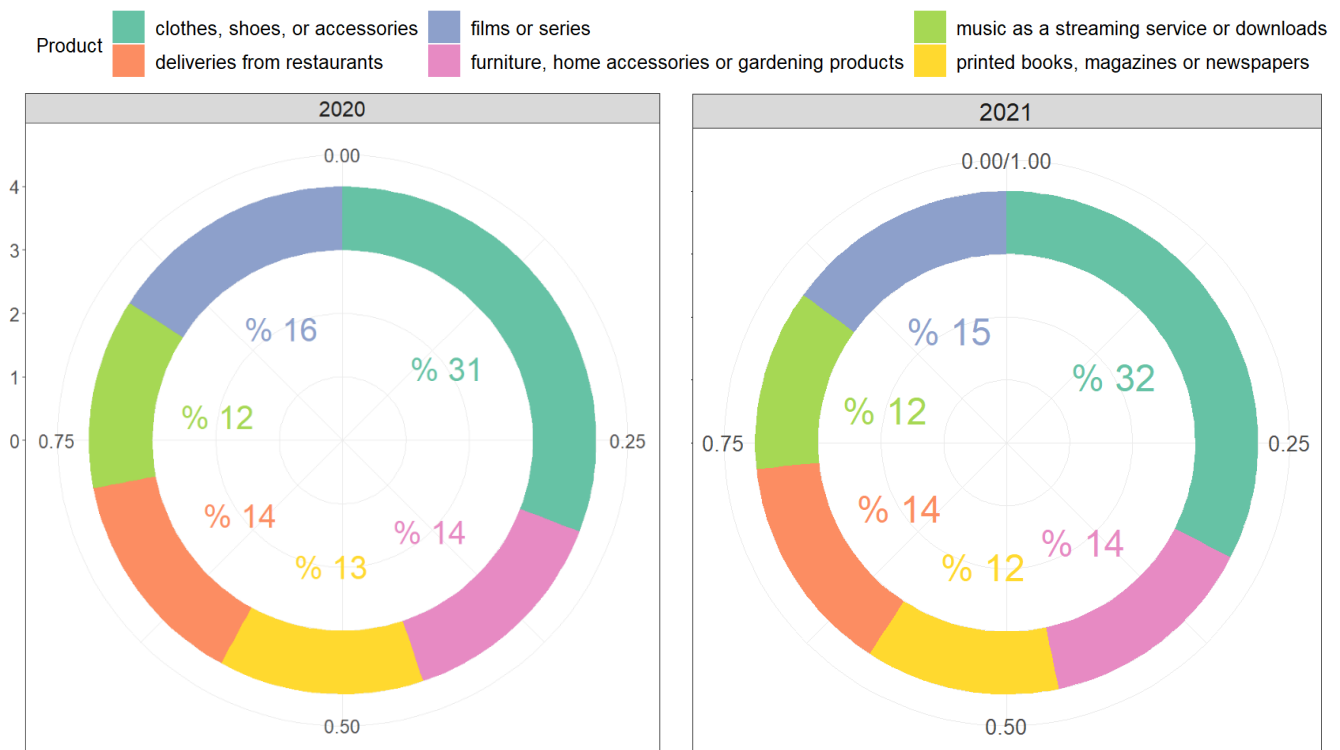


Figure 1. E-Commerce Product Type Distribution in Europe.

we need to mention the fact that companies can use peculiar strategies for different platforms according to their purpose of use [1]. For example, Walmart has made a deal with a social media platform called TikTok to improve their online shopping by trying to influence their customers with videos they share. The other example can be given from Instagram since they started using IGTV and shopping features to add a video-commerce tool for potential customers [5]. In other words, it can be deduced that the transformation of online shopping is decided by the changes in digital marketing strategies.

B) The Impact of COVID-19 on E-commerce

As emphasized above, people met online shopping many years ago before the pandemic have come out. Considering the times before the COVID-19 pandemic, consumers used to do shopping in physical stores and on the Internet at the same time which is nearly the same case with today’s shopping behaviour. In addition to this, researchers suggest that both styles of shopping should be supported with effective technologies to ensure consumer satisfaction [6]. However, the fact that online shopping

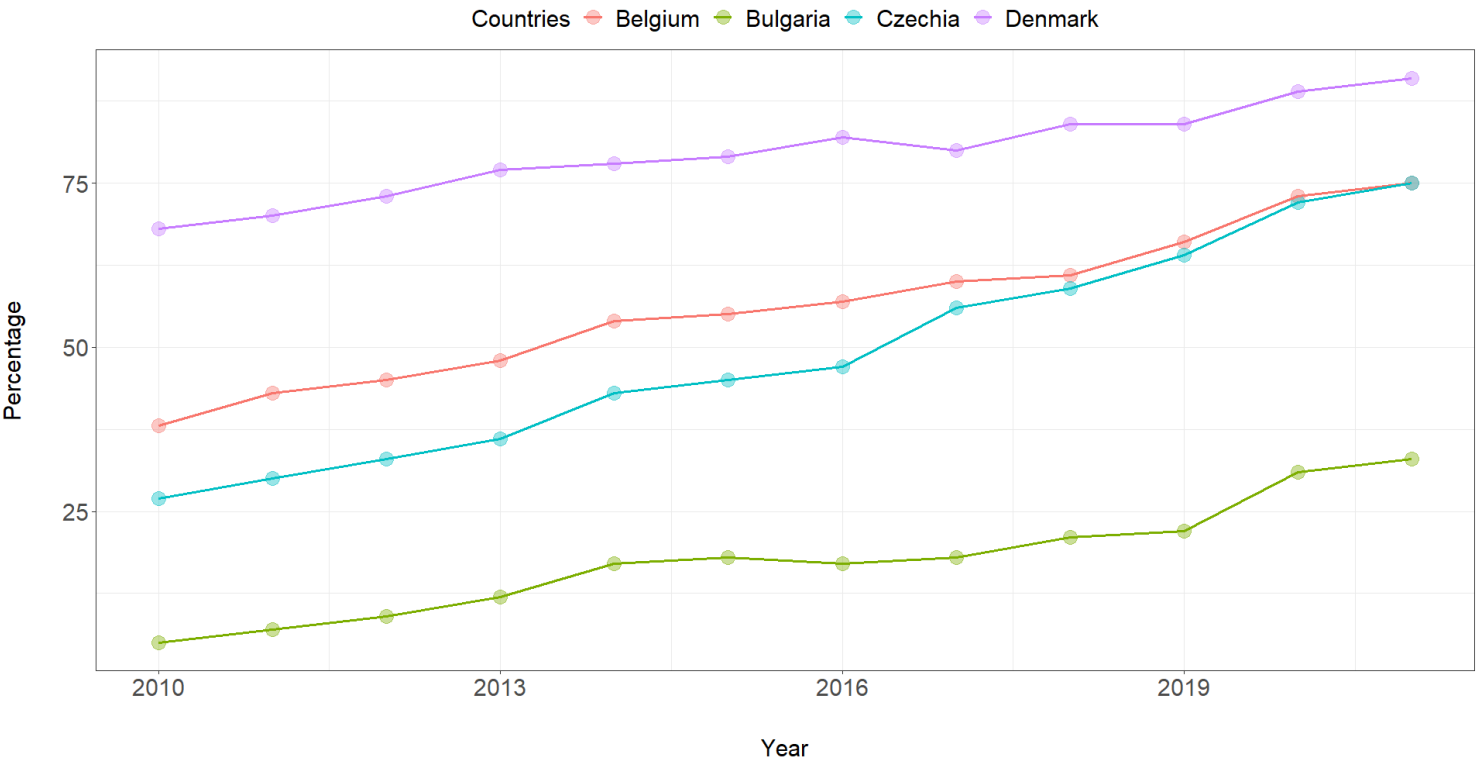


Figure 2. Behaviour Change Towards E-Commerce in Europe: Belgium, Bulgaria, Czechia, and Denmark Example.

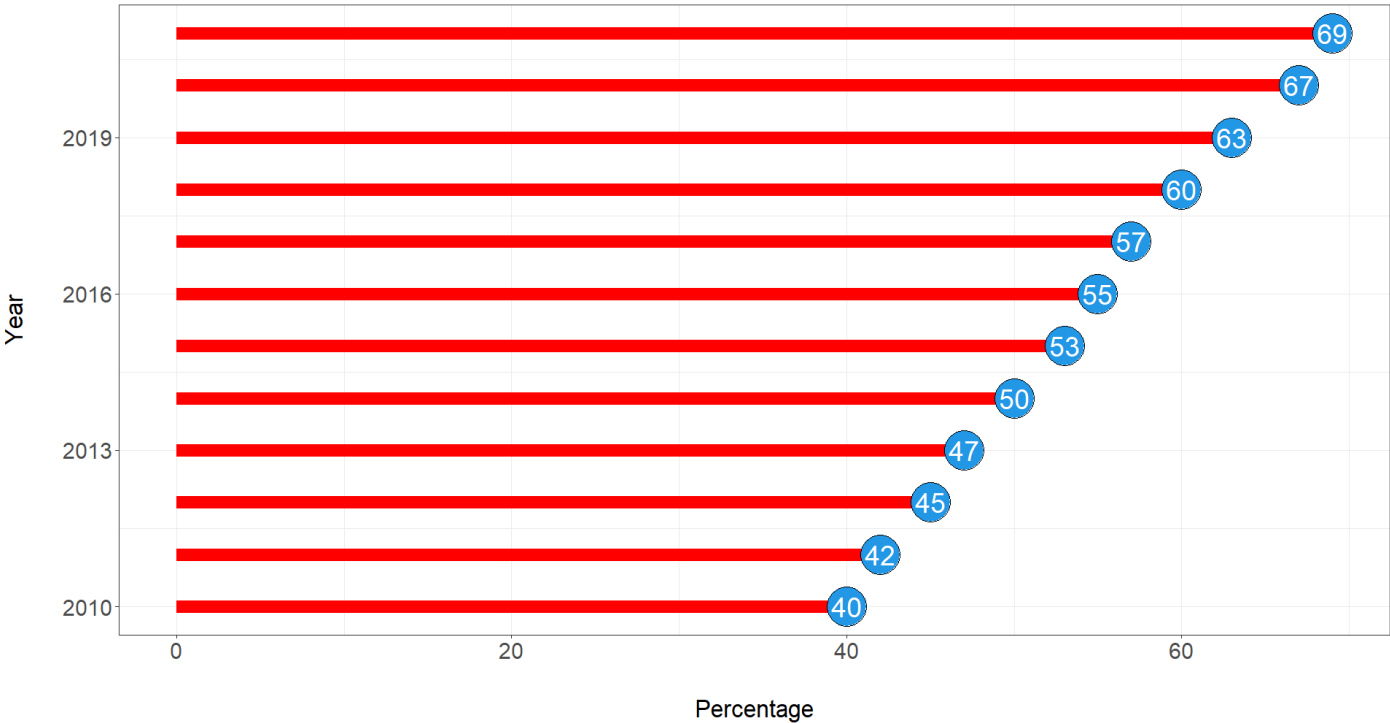


Figure 3. Online Purchase in European Countries Over the Years

has become a must with the outbreak of the pandemic and lockdowns are solid. Most importantly, this change posed some confrontations for the e-commerce site and completely altered the supply chain mechanism accordingly [7]. This change is followed by others as consumers and companies experience it.

Considering that the pandemic pushed people to shop online naturally, Inditex owning big clothing companies like Zara and Pull and Bear reports that the revenue gathered through online shopping has increased by 95% [8]. The other important point is that people have spent most of their time locked in their homes and started using the internet much more than they did before. This led them to buy things continuously and made social media platforms like Instagram even huger along with influencer marketing [9]. The techniques and impact of social media influencers will be addressed in further discussions.

Bearing all these facts in mind, the world started shifting back to its new normals. At this point, some researchers claim that this process notifies platform owners to make investments for both digital and physical logistics [10]. As the shops are reopening, people can go shopping physically and researches show that

consumers like spending time at stores regardless of their generation [8]. Despite these, according to surveys conducted in the USA, 29% of American consumers used to buy things via the internet at the beginning of the lockdown and this ratio is increased as being 36%, now [11]. Also, it has been reported that digital sales have increased to 141% along with the pandemic [11]. Another considerable rate is that 90% of huge e-commerce platforms like Amazon and Alibaba have made noticeable revenue growth [12]. To conclude, the pandemic has shown that these drastic changes in retail and consumer behaviour should be followed by new brand techniques and technologies to track the patterns of purchase and further estimation upon to what extent these patterns are influenced by social media platforms particularly.

Figure 4 and figure 5 plot the slight rise in e-commerce among European countries. For example, the data is doubled in Cyprus and Slovakia. In general, what can be observed from these figures is that people started relying on online shopping specifically after the pandemic because of lock-downs. And it can be estimated that these ratings will continue to rise in the upcoming years because online shopping has already created a context and tradition in itself.

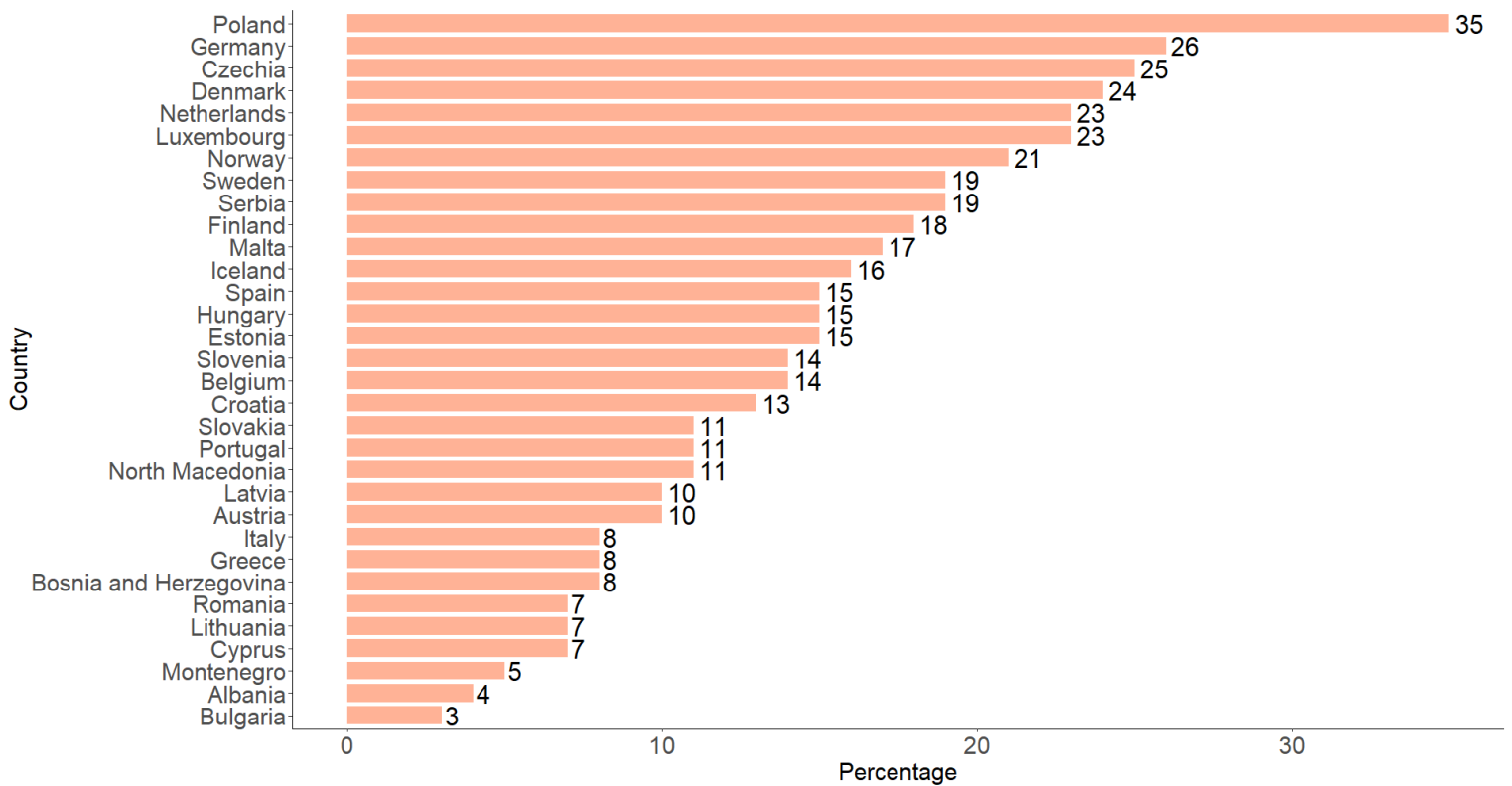


Figure 4. E-Commerce Percentage in European Countries (in 2020)

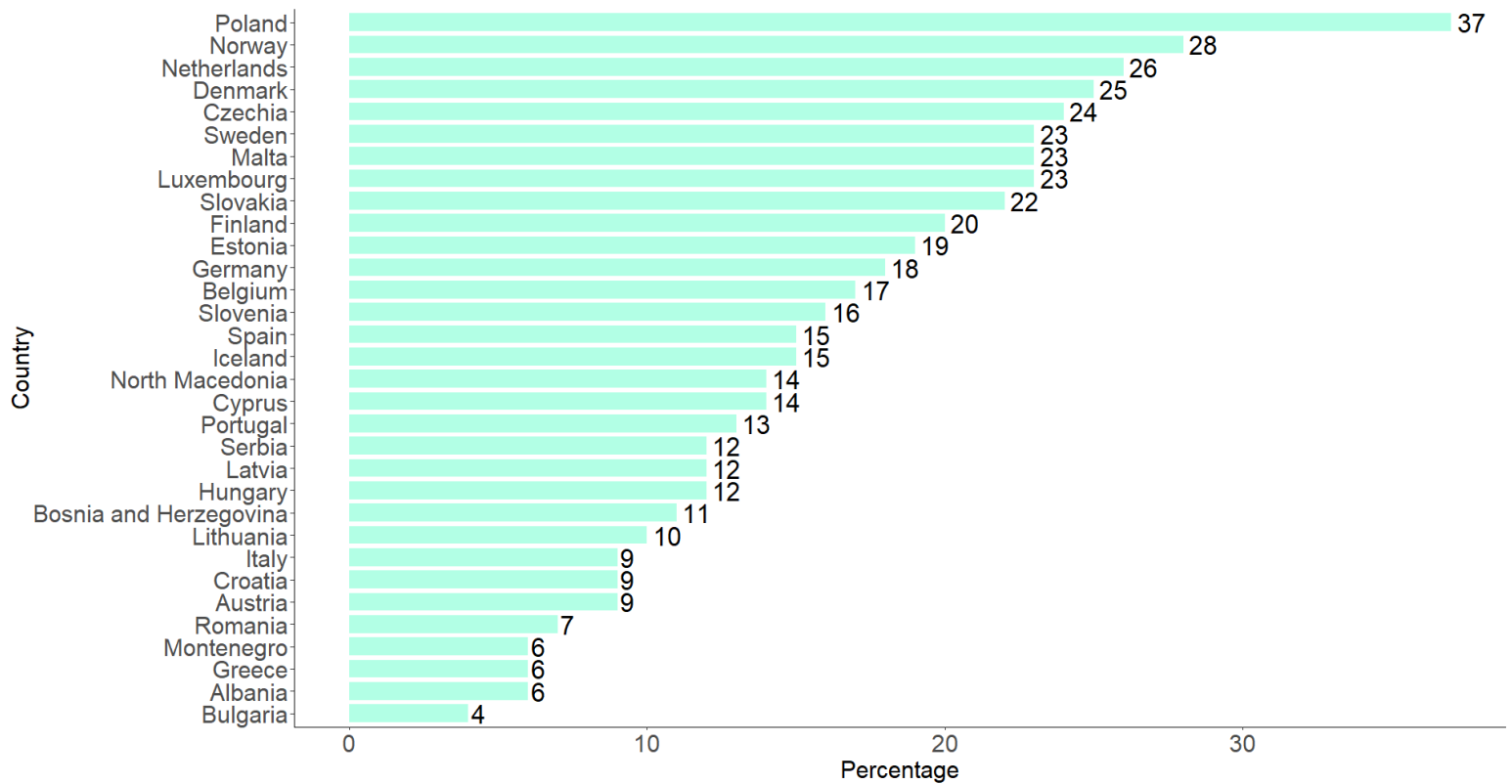


Figure 5. E-Commerce Percentage in European Countries (in 2021)

VI. COST OF DIGITAL ADVERTISEMENT

As we have discussed the impacts of COVID-19 in terms of consumer behaviour and revenues made by the leading companies of e-commerce, we should also address how much money they spend on digital advertising. The most important reason to address the issue from this perspective is that we have already mentioned how much time consumers spend online which is considerably longer. Hence, companies will assign some of their financial resources to influence their customers. The way how they conduct this depends on which platform they are giving advertisements on. For example, they may use Instagram influencers to advertise their products, but this does not mean that they will not spend anything since Instagram is free to use. However, this free term refers to consumers not paying money directly to the platform but the fee is paid through customers' interaction with the advertising systems [13]. In addition, they may also be liable to pay taxes to the governments like in Turkey [14]. As a result of these facts, companies, and investors should decide how they will be investing in new digital marketing trends in a clever way [15].

According to the research conducted by AdColony and the data reported by Statista, the spending on digital advertising was 335.6 billion US dollars and it is expected to reach 645.8 billion by 2024 [16]. When the case indicates this, we need to understand

that more devices will have the feature to connect to the internet in the near future. This will make the systems even more complicated and hard to track. Because of this, it is most probable that the cost of digital advertisement will increase accordingly. Another example is demonstrated in *figure 6*. That is to say, the spending on online advertising is increasing drastically over the years.

Although research shows that the money spent on digital marketing is huge, the outcome may not be as bright as the companies expect after investing in advertisements. Some big companies such as P&G, Uber, and eBay have encountered this situation before [17]. The problem can be identified as they cannot reach their target. Considering this issue, we need to investigate the impact of social media platforms which are extensively used by the consumer regardless of their intention being to search for something, just surf the net, or buy products with previously determined intentions. Since then investors and companies cannot be sure about who has seen their advertisement and under which circumstances even if they believe that the algorithms and technologies they utilize are effective and contemporary, the outcome may not be that desirable. For this reason, this study will inquire about the effect and contribution of social media influencers on modern digital marketing.

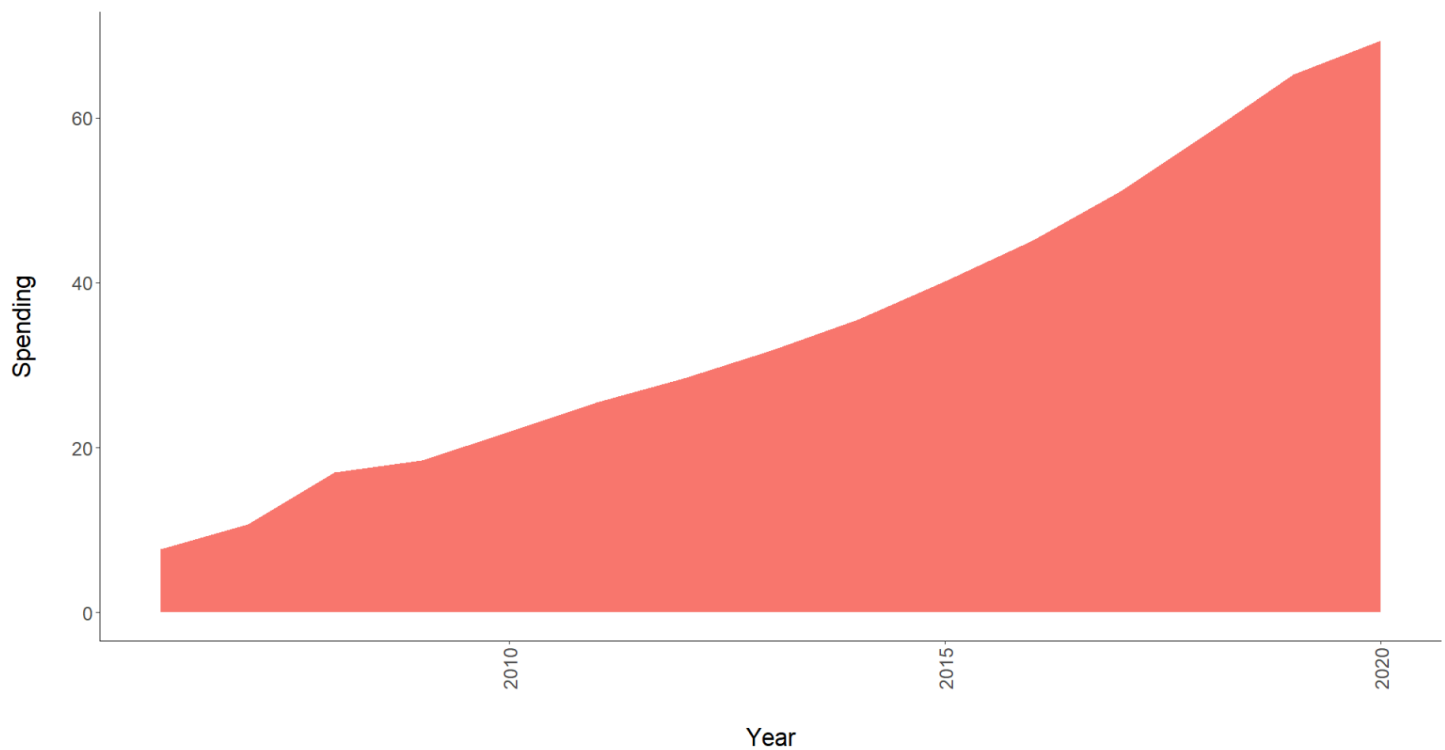


Figure 6. Online Advertisement in European Countries (in billion euros)

VII. INFLUENCERS' IMPACT ON DIGITAL MARKETING

Social media has invaded the internet evolving the social platforms into a space that can bring countless business opportunities. According to Oberlo company's statistics, there are around 3.96 billion social media users globally, a 4.8% increase from last year [18]. As the number of users keeps increasing, social media role models started to prosper by sharing their knowledge and expertise or presenting content that makes them gain followers and influence, for example, by posting funny or relatable short videos. A survey by Statista Research Department in 2021 shows the drastic increase in Instagram influencer market size from 2017 to 2020 worldwide [19].

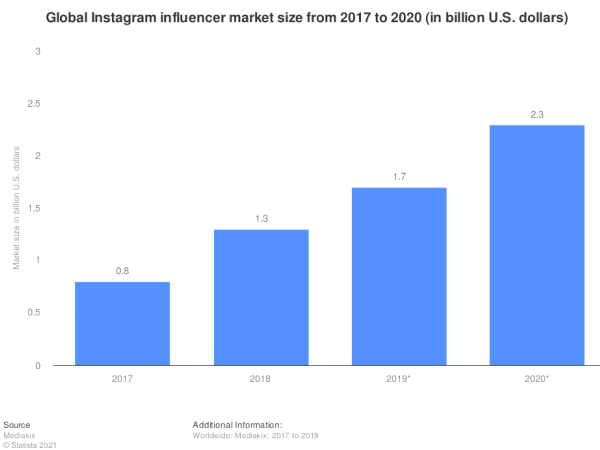
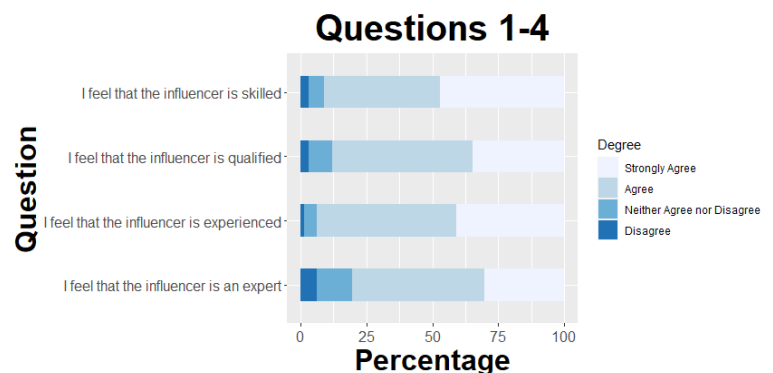


Figure 7. Global Instagram Influencer Market Size from 2017 to 2020 (in billion U.S. dollars).

Survey Data Analysis

The data we are working on was collected using an online questionnaire in India, Delhi NCR, through Google Forms. The filtered sample size is 66. The survey consisted of 23 main questions that we divided into five categories: expertise, trustworthiness, likability, information quality, and entertainment value of an influencer and his/her content. Furthermore, we converted the respondent's answers to numeric values in the sense that "Strongly agree" equals the number *five* while "strongly disagree" stands for a *one*. Then these numbers were summed according to each of the five categories. For example, the questions related to expertise are four, so the answers collected from these four questions will be added per person. If a person chooses strongly agree with the four questions it will look like: $5 + 5 + 5 + 5$. The following graphs present the questions that were asked and their groupings [20].



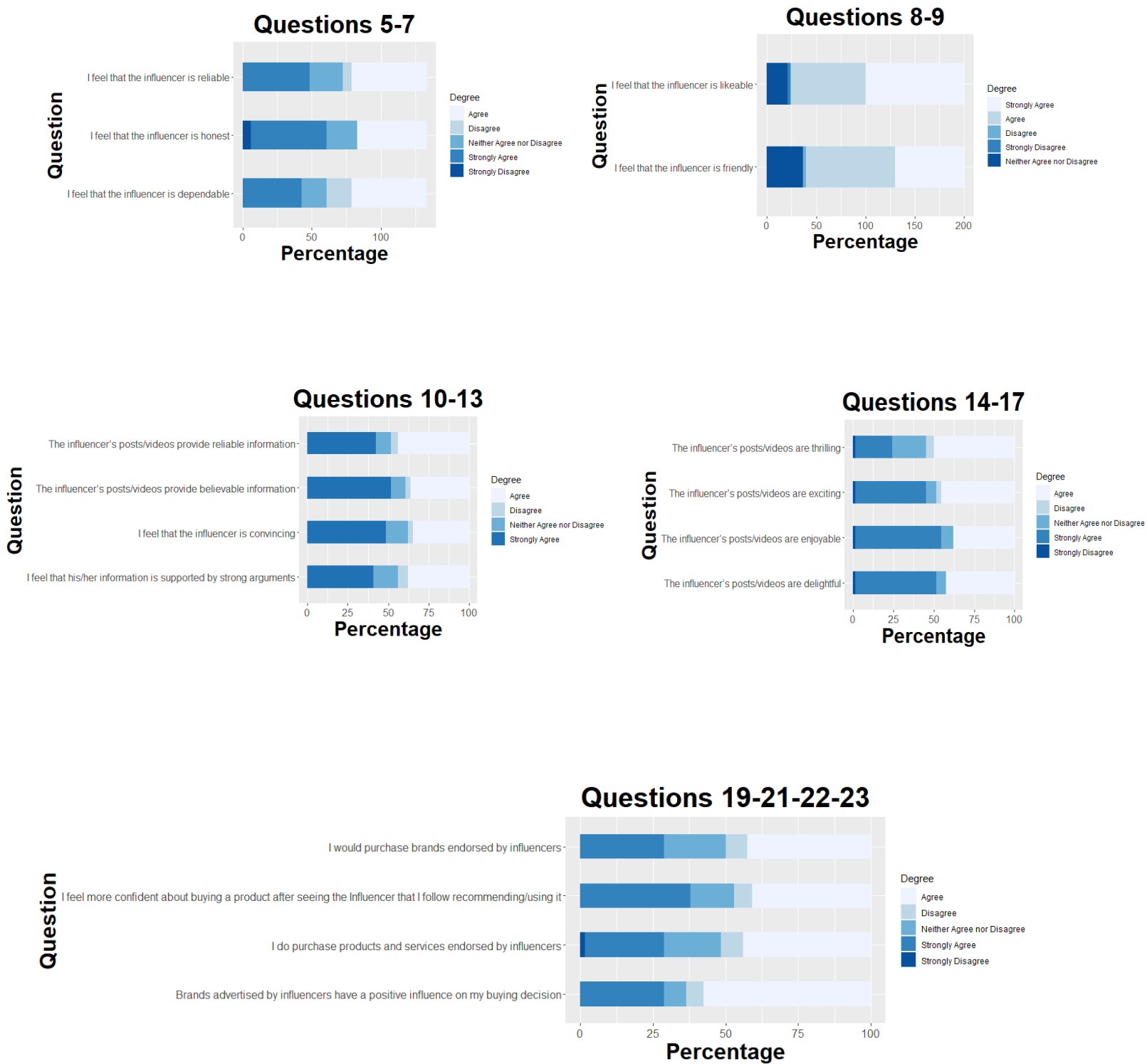


Figure 8. The Survey questions and their grouping.

In the following graphs, we tried to find a relationship between each category and consumers' purchasing intentions. For example, the expertise graph shows that many individuals answered by choosing "Strongly Agree," a five, and "Agree," a four for both the expertise and purchase intentions questions. The plot shows that when consumers think the influencer is an expert, they purchase the products the influencers promote [20].

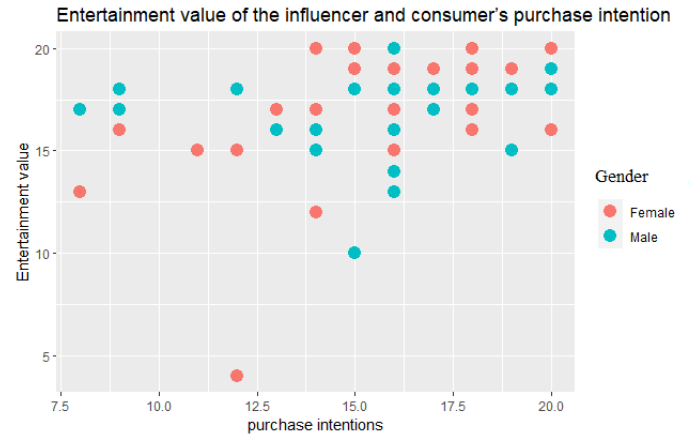
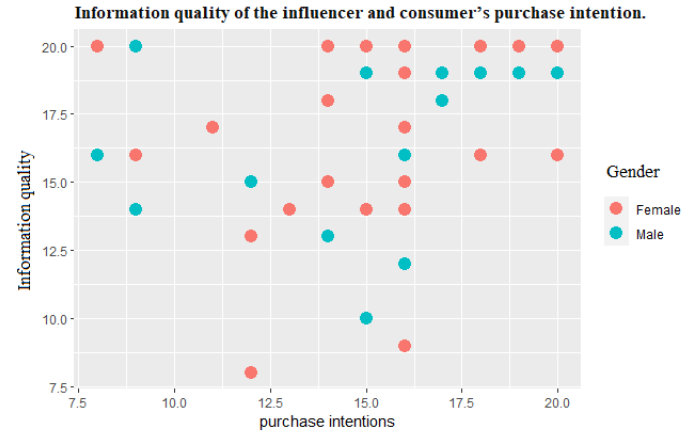
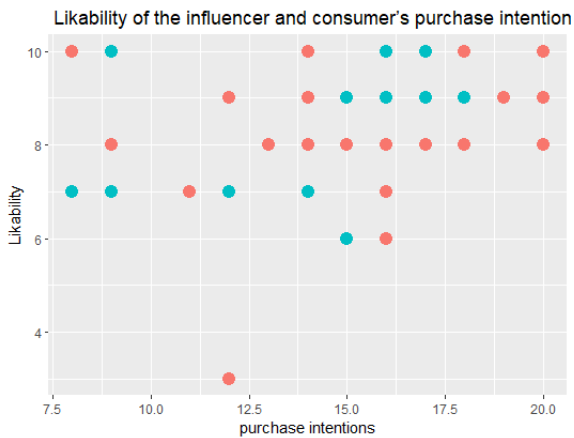
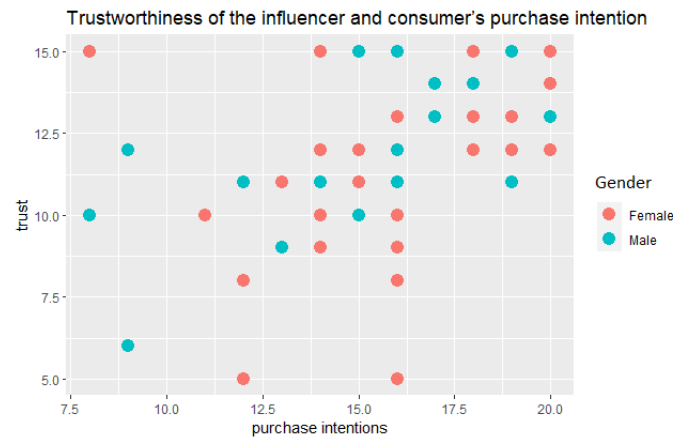
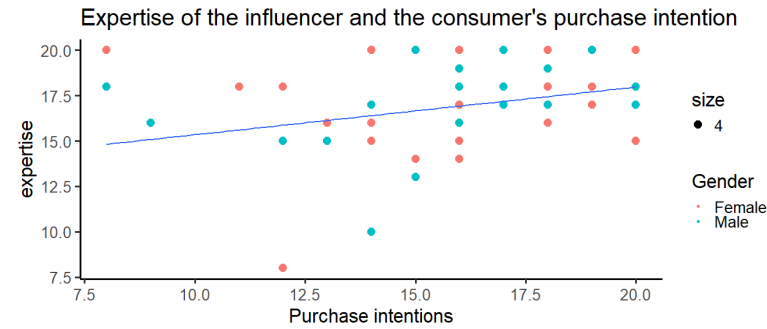


Figure 9. Relationship between the five categories and the consumer's purchasing habits.

Supporting data

As social media gained power, many people started to rely on information like product reviews, advice, and tips by others which influences a consumer's buying behaviour. According to a statistical study in 2018, 54 percent of social media users research products before buying them [21]. Consumers are more likely to buy a product with recommendations from people they trust. For example, an influential makeup artist would endorse makeup products, and as long as an influencer has a positive impact, people will follow. A 2019 study shows that 90 percent of marketers believe that social influencers are important factors in terms of marketing. Furthermore, according to a 2008 study, "Exploring the relationship between celebrity endorser effects and advertising effectiveness," it was concluded that there is a positive association between an attitude towards a celebrity and the brand they advertise [22]. In addition, a 2020 survey conducted in Thailand shows how all age groups had a higher percentage of individuals who purchased a product endorsed by an influencer [23].

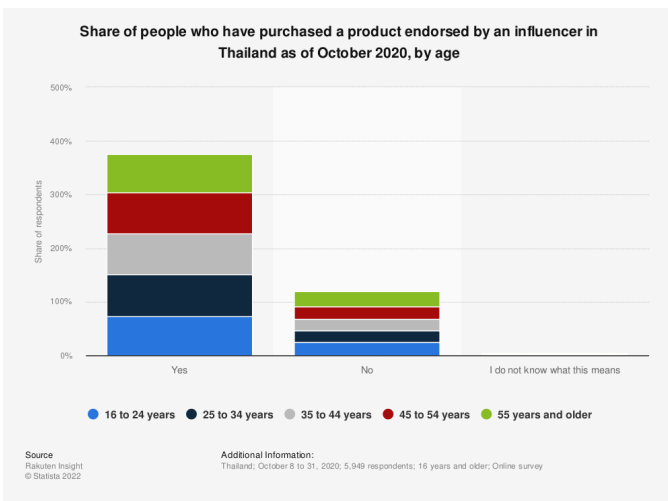


Figure 10. Share of people who have purchased a product endorsed by an influencer in Thailand as of October 2020, by age.

Reasons like the influencer's content, trustworthiness, expertise, and character can affect a consumer's purchase intention [24]. Many influencers advertise for products while claiming non-sponsorship but rather an "honest opinion." In a study about the paradox of (dis)trust in sponsorship, influencers disclosing sponsorship tend to lose their audience's trust and have a less persuasive effect as the customers will understand that it is just an advertisement [25]. However, in a study by the International Journal of Advertising, sponsorship discloser may sway the customer to think that the influencer is more credible than the lack of a discloser [26]. Influencers started addressing the latter problem by clearly stating that their endorsed products are not sponsored (non-sponsorship disclosure) [27]. When the intent of a post appears less persuasive and more of an honest opinion, the consumers tend to trust the claim and may not attribute extrinsic motives but rather an intrinsic motivation to the

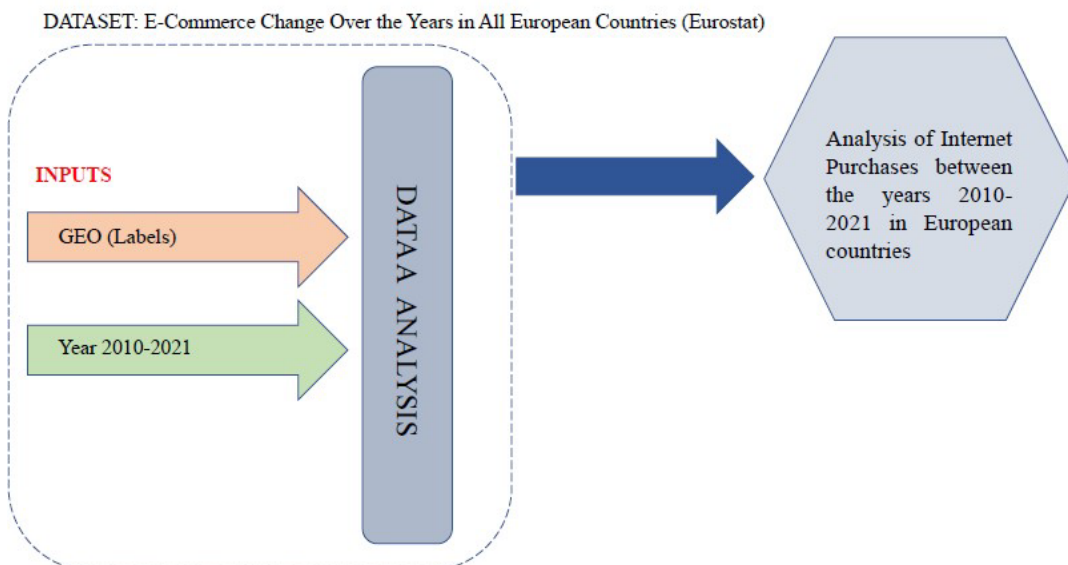
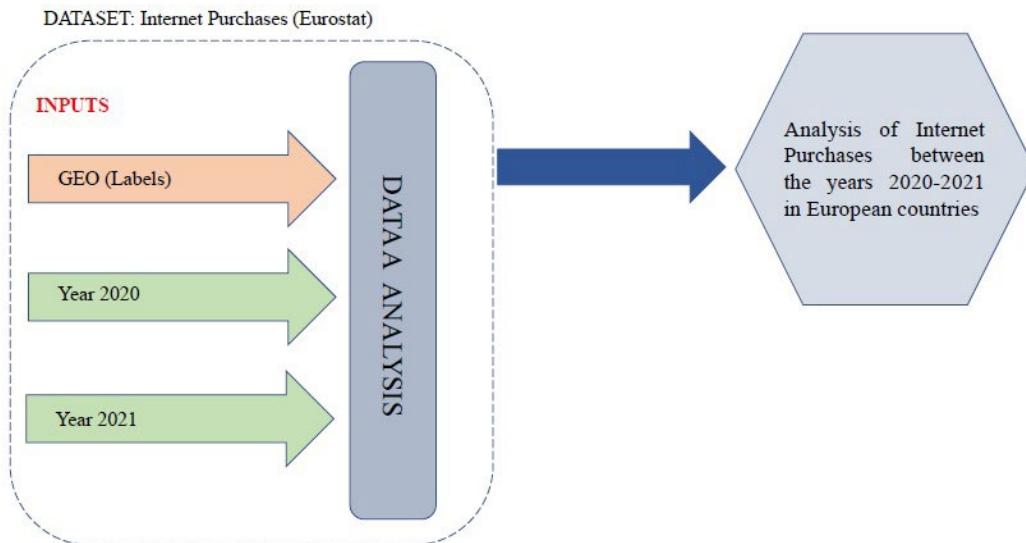
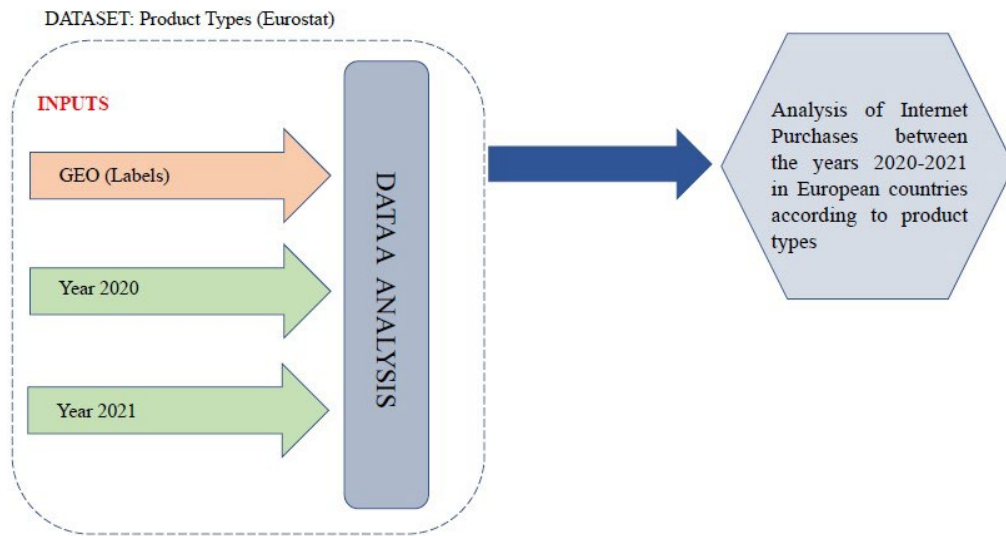
influencer. Extrinsic motivations are like persuasion motives, while intrinsic means that the influencer has a personal association with a product. Overall, a non-sponsorship discloser paired with an honesty claim post will have more influence over the audience, giving them a sense of trustworthiness and safety rather than a sponsorship discloser with an honest review [28]. The positive relationship between the influencer and the consumer's perception of a product shows how influencers impact the marketplace and people's buying habits.

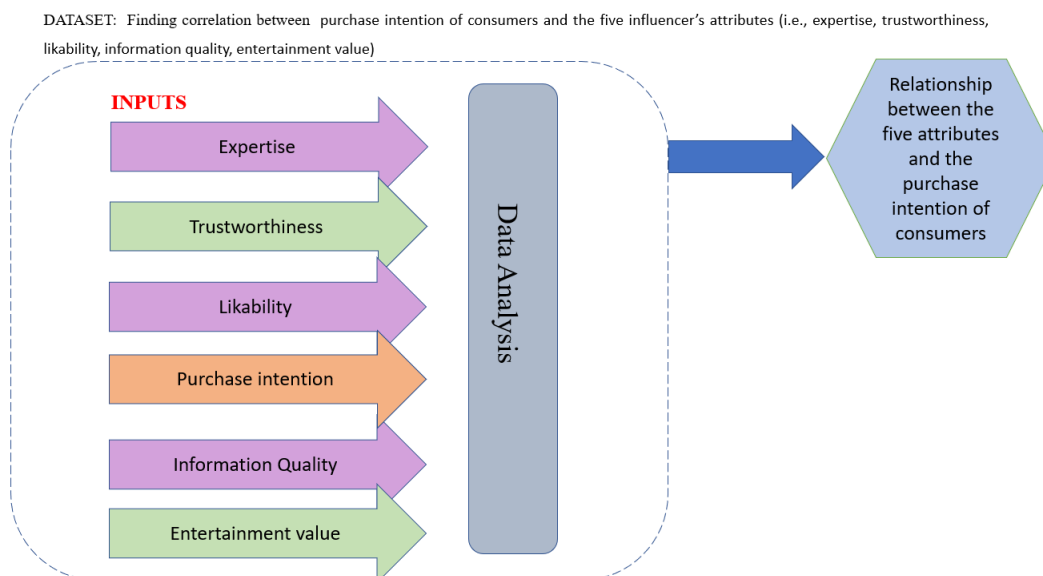
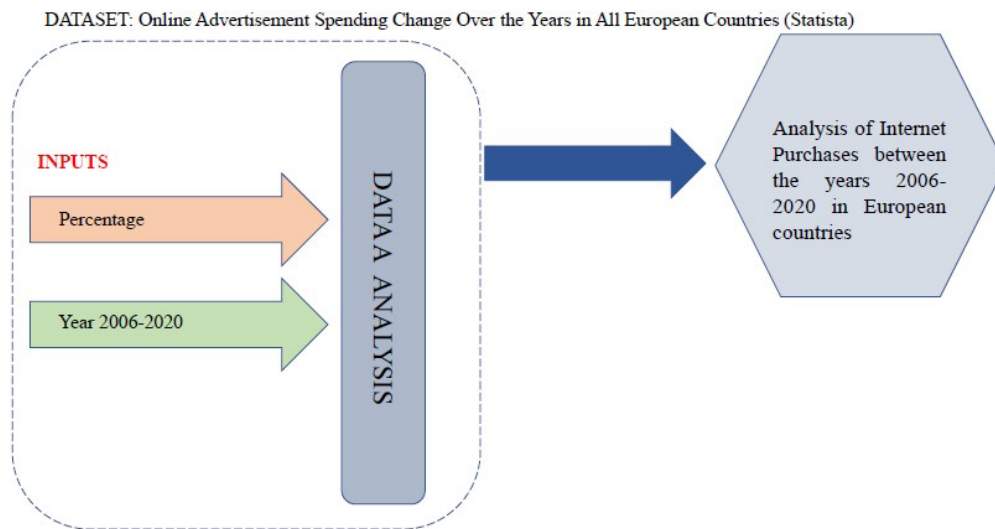
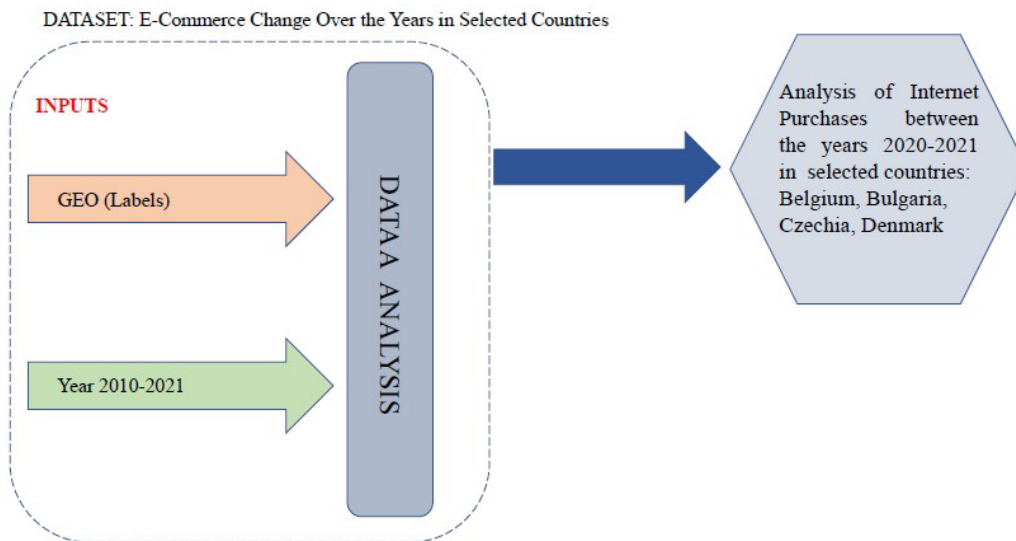
Finally, the last point this research will mention is the credibility of social media influencers related to their reviews and the products they promote. Research conducted by Portsmouth University on behalf of the Intellectual Property Office (IPO) in the UK examined the impact of complicit social media influencers on the consumption of counterfeit goods in the UK. The study was based on a quantitative survey of 10000 female consumers in the UK, as the social media industry is dominated by female influencers advertising products like jewellery and beauty products. One of the reasons for counterfeit purchasing is trusting influencers and their promotions which again relates to how trust can influence a consumer's purchasing intentions [29].

VIII. CONCLUSION

In conclusion, we tried to find a relationship between the five categories: expertise, trustworthiness, the likability of an influencer, the information quality and entertainment value of their content, and the consumer's purchasing intentions by graphing and grouping the data. As the data shows, many individuals who scored high in the five categories also scored high in questions related to purchasing intentions, which may lead to the conclusion that there is a positive relationship between the two. As supported by other resources, reasons like the influencer's content, trustworthiness, expertise, and character can affect a consumer's purchase habits.

IX. GRAPHICAL ABSTRACTS





REFERENCES

- [1] B. Lufkin. "The curious origins of online shopping". BBC. <https://www.bbc.com/worklife/article/20200722-the-curious-origins-of-online-shopping> (Accessed: April 2, 2022).
- [2] Y. K. Dwivedi, E. Ismagilova, D. L. Hughes, J. Carlson, R. Filieri, J. Jacobson, V. Jain, H. Karjaluoto, H. Kefi, A. S. Krishen, V. Kumar, M. M. Rahman, R. Raman, P. A. Rauschnabel, J. Rowley, J. Salo, G. A. Tran, and Y. Wang, "Setting the future of digital and social media marketing research: Perspectives and Research Propositions," *International Journal of Information Management*, vol. 59, p. 102168, 2021.
- [3] The Economist, London. The future of shopping: what's in store? | The Economist. (18 March 2021). Accessed: April 5, 2022. [Online Video]. Available: <https://www.youtube.com/watch?v=ad-GuV6YIMl>:
- [4] J. N. Sheth, "Borderless media: Rethinking international marketing," *Journal of International Marketing*, vol. 28, no. 1, pp. 3–12, 2020.
- [5] Wall Street Journal, New York. How a Walmart-TikTok Deal Could Transform Online Shopping in U.S. | WSJ. (10 November 2020). Accessed: April 5, 2022. [Online Video]. Available: <https://www.youtube.com/watch?v=4e-7HUBQkDg>
- [6] S. Dinesh and Y. MuniRaju, "Scalability of e-commerce in the COVID-19 ERA," *International Journal of Research -GRANTHAALAYAH*, vol. 9, no. 1, pp. 123–128, 2021.
- [7] B. Galhotra and A. Dewan, "Impact of COVID-19 on digital platforms and change in e-commerce shopping trends," 2020 Fourth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC), 2020.
- [8] CNBC International, New Jersey. How Covid-19 is changing our shopping habits | CNBC Reports. (18 August 2020). Accessed: April 5, 2022. [Online Video]. Available: <https://www.youtube.com/watch?v=Y7bKxIT1ILM>
- [9] S. Karan. "Covid-19's Impact On Digital Marketing Industry". <https://www.businessworld.in/article/Covid-19-s-Impact-On-Digital-Marketing-Industry/12-08-2021-400438/> (Accessed: April 5, 2022).
- [10] B. R. Han, T. Sun, L. Y. Chu, and L. Wu, "Covid-19 and e-commerce operations: Evidence from Alibaba," *Manufacturing & Service Operations Management*, 2022.
- [11] M. Blake. "More Customers Are Shopping Online Now Than At Height Of Pandemic, Fueling Need For Digital Transformation" Forbes.com. <https://www.forbes.com/sites/blakemorgan/2020/07/27/more-customers-are-shopping-online-now-than-at-height-of-pandemic-fueling-need-for-digital-transformation/?sh=c8009c76bb90> (Accessed: April 2, 2022)
- [12] O. Clodagh. "The Future of Marketing After Covid-19" Digital Marketing Institute. <https://digitalmarketinginstitute.com/blog/the-future-of-marketing-after-covid-19> (Accessed: April 5, 2022)
- [13] G. Chen, J. H. Cox, A. S. Uluagac, and J. A. Copeland, "In-depth survey of Digital Advertising Technologies," *IEEE Communications Surveys & Tutorials*, vol. 18, no. 3, pp. 2124–2148, 2016.
- [14] G. Didem. "Influencerin Sosyal Medya Kazançlarının Türk Hukukundaki Yeri" Guney Hukuk Buros. <http://guneyhukukburosusu.com/h-influencerin-sosyal-medya-kazanclarinin-turk-hukukundaki-yeri-167/?dl=> (Accessed: 5 April, 2022)
- [15] E. M. Olson, K. M. Olson, A. J. Czaplewski, and T. M. Key, "Business strategy and the management of Digital Marketing," *Business Horizons*, vol. 64, no. 2, pp. 285–293, 2021.
- [16] "Digital advertising spending worldwide from 2019 to 2024" Statista. <https://www.statista.com/statistics/237974/online-advertising-spending-worldwide/#:~:text=It%20was%20calculated%20that%20the,of%20the%20covid%2D19%20pandemic.> (Accessed: 1 April, 2022)
- [17] Dr. F. Augustine. "Billions Spent On Digital Ads, And You're Not Sure?" Forbes. <https://www.forbes.com/sites/augustinefou/2021/01/31/billions-spent-on-digital-ads-and-youre-not-sure/?sh=7c7eb4250613> (Accessed: 5 April, 2022)
- [18] J. Gaubys, "How many people use Social Media in 2022? [updated Jan 2022]," Oberlo. [https://www.oberlo.com/statistics/how-many-people-use-social-media#:~:text=The%20latest%20figures%20show%20that,jump%20in%20just%20six%20years\(Accessed: 06-Apr-2022\).](https://www.oberlo.com/statistics/how-many-people-use-social-media#:~:text=The%20latest%20figures%20show%20that,jump%20in%20just%20six%20years(Accessed: 06-Apr-2022).)
- [19] Published by Statista Research Department and J. 14, "Global Instagram Influencer market value 2020," Statista, 14-Jan-2021. [Online]. Available: <https://www.statista.com/statistics/748630/global-instagram-influencer-market-value/>. (Accessed: 06-Apr-2022).
- [20] S. ., "Effect of social media influencer marketing on purchase intention and the mediation effect of credibility," Mendeley Data, 05-Jul-2020. [Online]. Available: <https://data.mendeley.com/datasets/gdd9htg5gb/1>. [Accessed: 05-May-2022].

- [21] C. Beer, "Social browsers engage with brands," GWI, 30-Mar-2021. [Online]. Available: <https://blog.gwi.com/chart-of-the-day/social-browsers-brand/>. (Accessed: 06-Apr-2022).
- [22] C. Amos, G. Holmes, and D. Strutton, "Exploring the relationship between celebrity endorser effects and advertising effectiveness," *International Journal of Advertising*, vol. 27, no. 2, pp. 209–234, 2008.
- [23] Published by Statista Research Department and F. 15, "Thailand: Influencers' impact on purchasing by age 2020," Statista, 15-Feb-2022. [Online]. Available: <https://www.statista.com/statistics/1202133/thailand-influencers-impact-on-purchasing-by-age/> (Accessed: 06-Apr-2022).
- [24] "The impact of social media power on consumer ... - core." <https://core.ac.uk/download/pdf/287890701.pdf>. (Accessed: 06-Apr-2022).
- [25] S. J. Kim, E. Maslowska, and A. Tamaddoni, "The paradox of (DIS)Trust in sponsorship disclosure: The characteristics and effects of sponsored online consumer reviews," *Decision Support Systems*, 06-Nov-2018. <https://www.sciencedirect.com/science/article/pii/S0167923618301714?via%3Dihub>. (Accessed: 06-Apr-2022).
- [26] Additional information notes on contributorsBartosz W. WojdyskiDr. Bartosz W. Wojdyski (Ph.D., "The covert advertising recognition and effects (CARE) model: Processes of persuasion in native advertising and other masked formats," Taylor & Francis. <https://www.tandfonline.com/doi/full/10.1080/02650487.2019.1658438>. (Accessed: 06-Apr-2022).
- [27] C. Stubb and J. Colliander, "'this is not sponsored content' – the effects of impartiality disclosure and e-commerce landing pages on consumer responses to social media influencer posts," *Computers in Human Behavior*, 04-May-2019. <https://www.sciencedirect.com/science/article/pii/S0747563219301724?via%3Dihub>. (Accessed: 06-Apr-2022).
- [28] S. S. Lee, B. T. Vollmer, C. A. Yue, and B. K. Johnson, "Impartial endorsements: Influencer and celebrity declarations of non-sponsorship and Honesty," *Computers in Human Behavior*, 06-May-2021. <https://www.sciencedirect.com/science/article/pii/S0747563221001813#bib32>. (Accessed: 06-Apr-2022).
- [29] D. Shepherd, M. Button, and K. Whitman, The Intellectual Property Office, United Kingdom, rep., 2021.
- [30] European Commission. [Online]. Available: https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_CE_I/default/table. (Accessed: 05-May-2022).
- [31] European Commission. [Online]. Available: https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_IBGS/default/table. (Accessed: 05-May-2022).
- [32] European Commission. [Online]. Available: https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_IBUY/default/table. (Accessed: 05-May-2022).
- [33] European Commission. [Online]. Available: https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_IB20/default/table. (Accessed: 05-May-2022).
- [34] Published by Statista Research Department and O. 20, "Europe: Online AD spend 2006-2020," Statista, 20-Oct-2021. [Online]. Available: <https://www.statista.com/statistics/307005/europe-online-ad-spend/>. (Accessed: 05-May-2022).