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The Impact of News in social media in Purchase intention - An application to Tesla.

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MSc in Business Administration

Supervisors:

PhD, Rui Alexandre Henriques Gonçalves, Invited Assistant Professor

Iscte – Instituto Universitário de Lisboa

October 2024

Department of Marketing, Strategy and Operations

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Resumo:

As redes sociais são uma das plataformas mais importantes para marketing e comunicação que existem nos dias de hoje. Este trabalho tem como objetivo avaliar o impacto das notícias nas redes sociais em relação à intenção de compra da gigante dos veículos elétricos, Tesla. Dado que as redes sociais estão disponíveis para todos, há também a necessidade de compreender se a reputação e a credibilidade afetam a intenção de compra das pessoas, especialmente num mercado em crescimento como o dos veículos elétricos. Com todos estes aspetos em mente, foi utilizado um método quantitativo através da aplicação de questionários para a recolha de dados, sustentado por descobertas teóricas e empíricas, validadas com o modelo PLS-SEM. Os resultados mostraram que as notícias nas redes sociais têm um impacto positivo na intenção de compra e que a reputação e a credibilidade são consideradas impactantes na intenção de compra. O estudo fornece algum suporte às empresas que desejam compreender os efeitos das notícias nas redes sociais sobre a intenção de compra no mercado de veículos elétricos.

Palavras chave: Tesla, Elon Musk, Social Media news, Purchase Intention

JEL Classification:

M310 - Marketing

M100 - Business Administration: General

Abstract

Social media is one of the most important platforms for marketing and communication that exist in today's day and age. This work aims to assess the impact of news in social media in regard to purchase intention of the electric vehicle giants Tesla. Given the fact that social media is available for everyone, there is also a need to understand if reputation and credibility affect the purchase intention of people, especially in a growing market like the electric vehicle market. With all these aspects in mind, a quantitative method was used by applying questionnaires for data collection, backed up by theoretical and empirical findings, validated with PLS-SEM model. The results showed that news in social media have positive impact on purchase intention and that Reputation and credibility is considered impactful in purchase intention. This study provides some support to companies that want to understand the effects of social media news on purchase intention in the electric vehicle market.

Keywords: Tesla, Elon Musk, Social Media news, Purchase Intention

JEL Classification:

M310 - Marketing

M100 - Business Administration: General

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Abbreviations

eWOM-electronic word of mouth

RP/RP-NRP/NRP-Can news from more respected papers or personalities affect the purchase intention of the consumer.

EV- electric vehicle

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Chapter 1- Introduction

Contextualization:

There has been a great technological improvement in our day and age, and the creation of social media gave businesses and people a new outlet that changed the dynamics of consumer engagement forever, something that Tesla utilizes for its advantage.

The evolution of social media is undeniable, and it can be seen over the past few years as more and more people are using it and are engaging and seeking information from it, making it a tool that people are dependent on for multiple reasons (Dhingra et al., March 15, 2019)

Social media is a tool that businesses and marketers can no longer survive without due to the fact that more traditional marketing techniques are not viable anymore as they do not give the necessary information or transmit the necessary visibility that business needs to prosper in today's day and age (Gehro et al., 2012), this is also due to the fact that the amount of internet users is scaling like it shows with the increase in volume from 2005 that had a total of 1,023 million people using the internet and in 2023 it has a total of 5.400 million people (ITU; November 27, 2023).

For (Grover et al., 2022), social media is a tool that connects people and can affect the decision making of users as people use it as a source of reliable information to make more informed decisions on several topics.

Like we can see from different authors social media is a source of information and a powerful marketing tool, so the purchase intention of a consumer will be affected.

For the author (Younus et al., 2015), purchase intention is correlated with customer knowledge and other factors as celebrity endorsement.

Tesla utilized social media and different marketing techniques to elevate itself to the top of the electric vehicle market, prioritizing customer experience, creating a positive eWOM, customer loyalty and retention.

Ultimately the aim of this thesis is to see the correlation between social media and purchase intention and to develop further the study of this two with a focus on the electric vehicle giants- Tesla.

1.2. Research Problem

The fact that social media is an important tool, and it has been evolving and changing the marketer's perspective is talked extensively in the literature of this topic (Kamal, & Shnarbekova, (2021), Zhang *et al* (2017), (Grover et al., 2022), (Geho et al., 2012) (Dhingra et al., March 15, 2019), some authors also talked about the importance of eWOM in purchase intention . (Sulthana & Vasantha 2019), (Moustakas, 2015), (Leong *et al.*, 2021)., (Erkan & Evans, 2016), (Cooley & Parks-Yancy, 2019),

These two topics are the foundations of tesla success, as tesla explores social media and thrives to create positive eWOM and good costumer experience.

With the increase of information on social media and the rapid effect on consumer behaviours, there is the need to address the problem of the correlation between social media news and the impact it has on consumer purchase intention, which this thesis will have a focus on the electric vehicle giant, Tesla.

1.3 Research Objectives and Questions

To aid in the answering of my research problem, there are some objectives that should be met to justify this work.

These objectives are the assessment of the sentiments expressed by users in response to Tesla-related news on social media, identifying both positive and negative sentiments.

Also investigate the relationship between exposure to Tesla-related news on social media and consumers purchase intention, considering factors such as trust in information sources, perceived credibility of news, and the individual's prior attitudes towards electric vehicles, (eWOM).

The questions used to aid in the answering of this research problem are:

- Is the news on social media affecting the purchase intention of the consumer. (Zhang *et al.*, 2017).
- Can news from more respected papers or personalities affect the purchase intention of the consumer. (Moustakas, 2015)

1.4. Structure of the Dissertation

This dissertation will have the following structure.

Chapter1 Gives the introduction of the study, provide the framework, research objectives and questions and the dissertation structure.

Chapter 2 gives the literature review that will approach different topics such as Credibility, Stock market value regarding social media, Consumer behaviour in social media with the sub-chapters of eWOM and Purchase intention related to social media. Also, it will give the theoretical approach used to develop the research questions and objectives of this dissertation.

Chapter 3 will give the methodology used to answer the research questions and also describes the sample used.

Chapter 4 gives the results of the methodology presented in chapter 4 and the interpretation of the results.

Chapter 5 gives the main conclusion of the investigation, limitations and suggestions for future research.

Chapter 2-Literature review

2.1 Consumer behaviour in social media

2.1.1 Purchase intention related to social media.

Zhang *et al* (2017) found that using social media to buy products is a long-term phenomenon. They found that most well-known performance indicators such as likes and the involvement of companies in social media contributes to the long-term impact of social media. They also found that cumulative social network usage contributes to this phenomenon and that companies shouldn't be discouraged if the sales performance of their campaigns doesn't have an immediate effect. The authors also note that consumer activity is related to a greater use of social networks, and with this information companies can target specific groups that use more social networks such as young people. (Zhang *et al.*, 2017). Also, young people tend to have their purchase intention influenced by simple designs and the accessibility to information on the site to be easy and simple to understand (Sin *et al.*, 2012).

According to Kamal, & Shnarbekova, (2021) social media is growing fast and the younger generation that was born into this technology is fast adapting and are the most influential group regarding the use of modern technology, they found that young people divide their purchases and behaviour by 3 aspects, finding information, evaluate alternatives and post purchase behaviour's .There is an evaluation of products in the end, this is of major importance to companies that are present in social media in order to adapt their strategies.(Kamal, & Shnarbekova. 2021)

Renu & Gupta (2020) found that there is a positive influence on purchase intention by social media if there are rewards, interaction, eWOM, reviews, trust and satisfaction being the factor satisfaction the least impactful to the consumers. (Renu & Gupta ,2020)

As other authors there are markers that influence purchase intention, this author identified “performance expectancy, hedonic motivation, habit, interactivity, informativeness, and perceived relevance” (Alalwan, 2018, p74), and found that from the markets five have a significant impact on purchase intention and that habit doesn't play a significant part, and that interactivity is crucial to improve hedonic motivation and performance expectancy. (Alalwan, 2018)

Permatasari & Kuswadi, (2017) tell us that perceived value has huge importance to purchase intention and that perceived value is influenced by perceived price and perceived risk, so a lower risk and value product will be of greater value to consumers. (Permatasari & Kuswadi, 2017).

Regarding Ev there are many causes that make the consumer want an Ev but the most notable changes in purchase intention are due to economic factors such as price and operating cost of the vehicle, also other aspects as sustainability also take part in the purchase intention (Brase, 2019).

Purchase intention of tesla is mainly sustained by consumers perceived value of tesla and the supporting system, cost advantages, performance, safety, and comfort. (Hu .2022)

For the author (Younus et al., 2015), purchase intention is correlated with customer knowledge and other factors as celebrity endorsement

Per the author Matthews, L. (2010): “Social media marketing is an umbrella term that includes the use of social media for sales, marketing, customer service and public relations, indicating a convergence of these traditionally separate corporate departments”. (Matthews, L., 2010, p. 17)

2.1.2 eWOM

Ewom can be described as “Online/Electronic word-of-mouth (eWOM) is sharing of information about product and services among people who interact with one another in virtual world of social media” (Sulthana & Vasantha, 2019, p.1).

Sulthana & Vasantha (2019) Found that Ewom influences purchase intention when there are various referrals on social media, either anonymous or family members. (Sulthana & Vasantha 2019)

Moustakas (2015) found that consumers are more loyal to organizations that interact with their consumers and improve brand perception, also they are more satisfied with their services, and interact more with the brand which leads to greater consumption. The author also found that consumers can have different buying behaviours based on cultural aspects. Also, the author found there is an increase in digitalised word of mouth being used in social media and that consumers like to share their experiences either positive or negative and tend to only believe

more reliable or known sources, so marketers need to control the messages they are sending to the consumers and also monitor the post purchase behaviour of consumers as it has a great effect in consumer behaviour. (Moustakas, 2015)

Leong *et al.*, (2021) tells that eWOM influences purchase intention based on two characteristics, information usefulness and information adaptation, people want information to be detailed abundant and useful to shape their purchase intention. (Leong *et al.*, 2021).

Erkan & Evans (2016) points out that when it comes to eWOM information shared on social media, it's not just about the quality and credibility of the content. It also hinges on how consumers interact with and react to this information. (Erkan & Evans, 2016)

An interesting find in the study of Cooley & Parks-Yancy (2019) was that celebrities and influencers have less influence on consumers decision and buying behaviour if the factor was trust and that factor is a major influence if coming from people they know in real life and not social media, but obviously the awareness of the products is very influenced by these personalities. (Cooley & Parks-Yancy, 2019).

2.2 Stock market value regarding social media

Everts, & Jiang (2021) found that there is an increase in the stock price of Ev companies like tesla but found that many still don't buy an EV regarding concerns related to the manufacturing of the car such as the minerals used and other topics such as self-driving software. (Everts, & Jiang, 2021).

Kim *et al.*, (2021) conducted a study to see if there was a relation between Elon musk twitter and tesla stock and found that there is a direct relationship between them. They found that in the short term the engagement of Elon musk on social media app twitter was marginally related to the stock market value of tesla but in the long term there is an apparent correlation between the two. Showing clearly that there is a correlation between social media and stock market value in the case of tesla (Kim *et al.*, 2021).

Jiao *et al.*, (2018) found that there is a high level of volatility and trading activity when there is a high social media coverage and that with high news media (Traditional media) coverage it's the opposite. (Jiao *et al.*, 2018).

Consumer Sentiment is a very important factor to stock market values as it causes fluctuations, especially during a time of crises when there is a lot of talks about the economy and that indicates fear and uncertainty, that leads to massive sell of stocks so that the consumers don't have losses. (Reed, 2016).

Piñeiro-Chousa *et al.*, (2017) also found that consumer sentiment is a very big influence on stock markets and that technical investors are more affected by social media than non- technical investors. (Piñeiro-Chousa *et al.*, 2017).

Political uncertainty can influence stock performance more as information is globally shared on social media prior to the regional or country size sharing of news using traditional news, and that phenomenon's such as an election can cause huge fluctuations on the markets. (Fan *et al.*, 2020).

2.3 Credibility in Social Media

Credibility refers to the quality of being trusted and believed in. The author Kioussis, S. (2001) ,divides credibility in two parts source and medium, exploring how source credibility can affect the population, in his study he found that regarding the most credible news medium newspapers were the number one, online news second and television news third, and furthermore that perception plays a big part in the credibility of news, has previous perceptions affect the credibility of the news. (Kioussis, S., 2001)

Per the authors Rieh, S. Y., & Danielson, D. R. (2007), credibility is related to different factors like quality of information, where the user evaluates the information based on it following is needs or not, like if it is useful, not outdated, is it from a reliable source, is it comprehensible, all these aspects are taken into consideration in the credibility of the information, also, there's the concept of authority where a person perceives credibility depending on the source of information, like if it's a known organization or a person with high competence in the area they are speaking. Trust is another factor debated in this paper especially in e-commerce has people are very concern about the use of technologies, also found that trust may or may not affect a source of information regarding credibility (Rieh, S. Y., & Danielson, D. R., 2007).

As for credibility in social media people are more likely to trust and find more credible people, they know instead of other sources of information like social media platforms and social

media influencers, as the perceived validity of the information is greater from people they know than others (Cooley, D., & Parks-Yancy, R., 2019).

How the message is perceived is also an important factor to credibility as information familiarity is an important factor for credibility, (Wathen, C.N. and Burkell, J., 2002). Also, regarding online information, how the web site is design and how the information was written are important factors for perceived credibility, as well as the users familiarity with new technologies. (Wathen, C.N. and Burkell, J., 2002).

The authors Moturu, S. T., & Liu, H. (2011), also found that trust is an important factor especially in social media, they found that reputation is an important factor for trust, and reputation is measure by former work that was done by the information source like content creation, user feedback is also a good way to measure trust and reputation. (Moturu, S. T., & Liu, H., 2011),

2.4-Theoretical Approach

Based on Literature Reviem previously elaborated, there were topics that were talk about extensively but are also topics in need of further investigation as this topic evolution is noticeable in a day-by-day basis. With that I have reached two research questions that can help further improve the knowledge of this topics.

RQ1: Is the news on social media affecting the purchase intention of the consumer?

The field of Social media has been growing over the years and a lot of research has been made in order to fully understand its effectiveness, and how can companies utilize it to make their product more appealing, like the authors Kamal, & Shnarbekova (2021) said social media is fast-growing, and more and more people are using social media to buy and see products that can interest them. (Kamal, & Shnarbekova. 2021).

Authors like (Zhang *et al.*, 2017), consider social media a long-lasting phenomenon, and that there are various factors that influence consumers online, which also is in accordance with the authors (Renu & Gupta ,2020), (Permatasari & Kuswadi, 2017), (Hu .2022),(Brase, 2019).

Despite this information and knowing that there is a lot of information on this subject a further need to dive deeper is very important and so I came up with the following hypothesis.

H1: News and social media have a positive impact in purchase intention of the costumer.

RQ2: Can news from more respected papers or personalities affect the purchase intention of the consumer?

Another main topic discussed in the literature about social media is credibility and reputation, most people believe in established companies, like the authors Moturu, S. T., & Liu, H. (2011) trust is a very important factor in credibility, and reputation can alter consumers perspective of trust, with reputation being based on previous work done by the company or entity.

Information online is a very difficult matter for some people has it can generate mistrust with people that are new to technologies, also most people want information that it's easy to read, accessible, comprehensible, and in order with their needs. (Rieh, S. Y., & Danielson, D. R., 2007).

Regarding credibility of information the authors (Wathen, C.N. and Burkell, J., 2002)., found that familiarity of information is a crucial factor for trust and credibility.

With all this information, I wonder about the difference of respected news outlets and non-respected ones, as the author Moustakas (2015), found people are more likely to purchase more and have a change in purchase intention if the brand is more familiar and interacts more with the consumer, which is a link to the matter of credibility.

With this information given by different authors I reached my second hypothesis:

H2: News from more respected papers or personalities have a positive impact on purchase intention of the consumer.

From both research questions I reached the concept model shown in figure 1

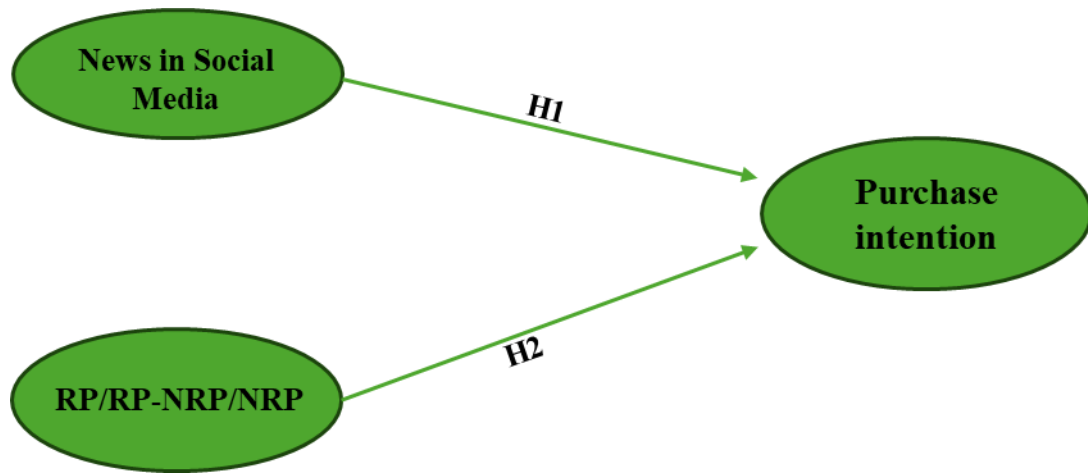


Figure 1 Concept model (Source: author)

Chapter 3-Methodology

Research is the gathering of information in a systematic way to solve a problem or understand a subject better. According to Saunders *et al.*, (2009), research aims to gather information to understand a subject better and should be done in three steps: choose the data to analyse, collection of the data in systematic way and analyse the data and explain its findings.

In this study there is the need to elaborate on the knowledge of others and better help understand the ways social media can affect purchase intention, and the effects on purchase intentions are different if we use respected personalities or not.

Regarding means, this research utilizes both primary and secondary sources, the primary sources were collected with a survey and the secondary sources by bibliographic research and information treatment, utilizing the systematic studies developed in books, scientific journals and articles, journals, social media websites.

The scientific articles were accessed through databases such as Google scholar, Scopus and Web of Science.

In the literature review, to get the most appropriate articles for this research it was utilized keywords to search the databases. The keywords used were social media, purchase intention, financial performance, Tesla, electric vehicles, Elon Musk and eWOM, the research also did not have a limit to when the articles were published in order to get the most information possible.

The research model uses the descriptive quantitative design, which means that the study is conducted without the manipulation of data, utilizing numerical values and percentages to measure a variable. (Siedlecki, S. L., 2020), (Price, O., & Lovell, K., 2018).

I used a survey to collect primary data with the objective to gain information about how social media can affect purchase intention and how can differently channels of information in social media affect the purchase intention. To obtain this information it was used two independent variables (News on social media, and RP/RP-NRP/NRP), to measure the dependable variable (Purchase Intention). How the survey was built is developed further in the next chapter.

The information regarding the survey will be analysed with the use of SEM and structural equations.

Being the research model the following: 1) bibliography research and information treatment, 2) data collection through questionnaires and the third step is the quantitative analysis of the data collected. Figure 2 illustrates the research model applied.

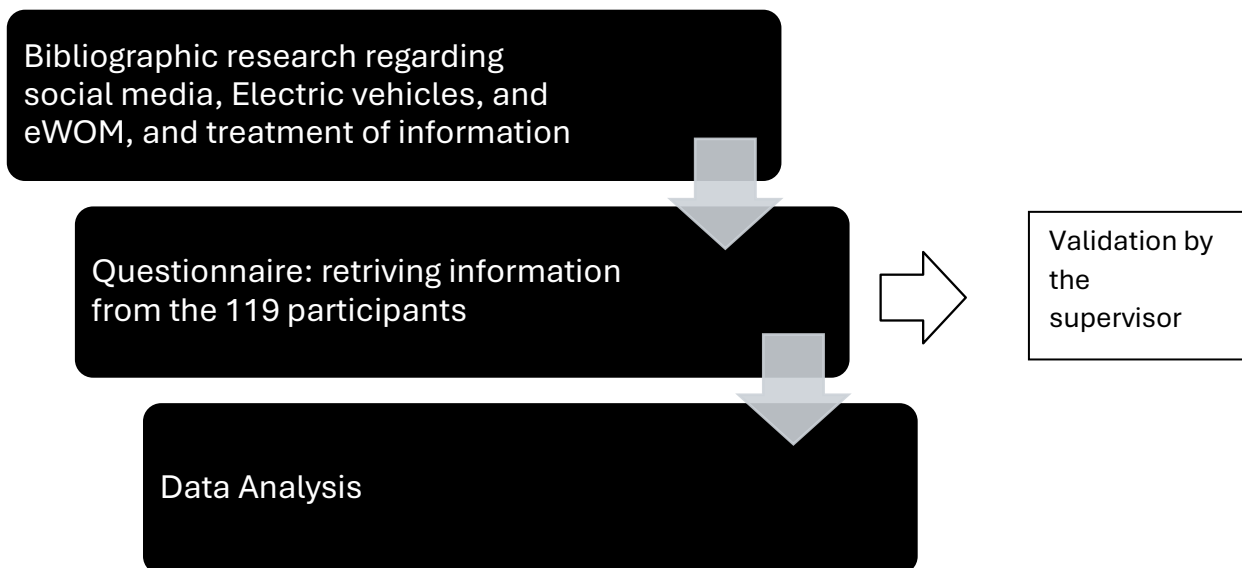


Figure 2: Research Model (Source: author)

3.1 Survey

The survey was made using google forms, a platform design to the creating of forms, the questionnaire is meant for adults that have an interest in tesla, have a tesla or an electric vehicle and are users of social media.

This questionnaire was made in English and was distributed among different groups of students and workers alike, both international and Portuguese, as well as from different universities around Europe, the questionnaire was available for a month in order to get the most answers possible after getting to the minimum established off 100 people. To reach this people it was used social networks and e-mail.

The questionnaire includes two types of questions: identification questions, which categorize respondents into specific social groups (such as age, and gender); and information questions, which gather data on the respondent's facts and opinions.

Respondents are given multiple-choice questions for general identification and one multiple choice open question for the social media platforms used. In other questions, intended

to assess their opinion and attitude towards a particular practice, respondents are asked to indicate the level of impact a statement or news has. To this end, a five-level Likert scale was used, ranging from 1,3 and 5, where level 1 corresponds to the answer "Negative Impact", level 3 to the answer "No Impact" and level 5 corresponds to the answer " Positive Impact".

3.2 Sample characterization

This sample has a total of 119 people. First, I analysed the sample regarding objective facts like demographic data, sentiment toward tesla and electric vehicles, social media time and what apps they use. Lastly, I proceed to analyse quantitatively the answers to obtain information to reach theoretical and empirical conclusions.

Out of the 119 questionnaires obtained, there were 49 (41.2%) people of an age between 40-60 years, below 25 years of age there were 25 (21%) people, from the 25-40 age group there were 32 (26.9%), and at the >60 age group there were 13 (10.9%) people.

What is your age?
119 respostas

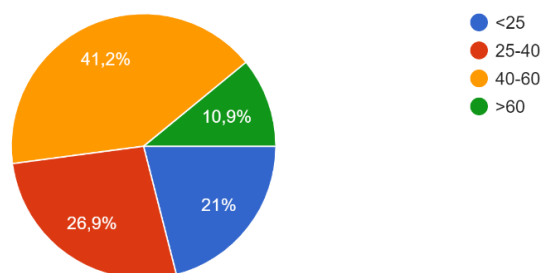


Figure 3 Age Pie chart (Source: Google Forms)

Regarding gender in this sample, 77 (64.7%) were male participants, 39 (32.8%) female participants and 3 (2.5%) people who didn't want to identify their gender.

What is your gender?

119 respostas

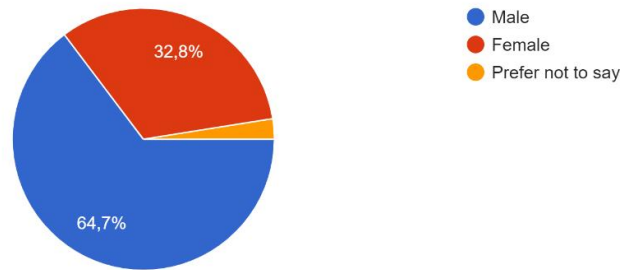


Figure 4 Gender Pie chart (Source: Google Forms)

For the time spent on social media there were a total of 63 (52.9%) people who spend 0-2 hours a day on social media, a total of 36 (30.3%) people that spend 2-4 hours a day, a total of 13 (10.9%) people spend 4-6 hours a day, a total of 2 (1.7%) use it more than 6 hours a day and 5 (4.2%) do not use social media

How much time do you spend on social media?

119 respostas

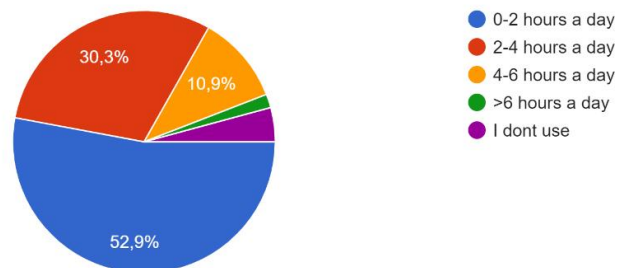


Figure 5 Time spent on social media Pie chart (Source: Google Forms)

Has for the preferred social media platforms, 28 use X (Twitter), 19 use reddit, 63 use Facebook, 13 used Telegram, 23 use TikTok and a total of 88 people use Instagram.

What are the social media platforms you use?

115 respostas

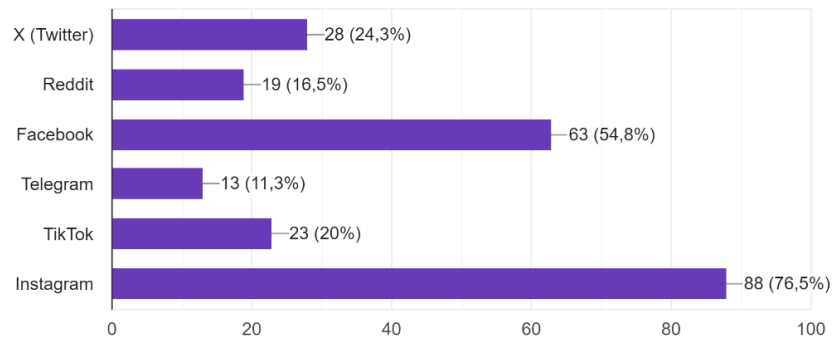


Figure 6 Social media platforms used Pie chart (Source: Google Forms)

Relatively to the sentiment towards tesla there is a total of 89 (75.4%) people who have a positive sentiment and 29 (24.6%) people who have a negative sentiment.

What is your sentiment towards Electric vehicles?

118 respostas

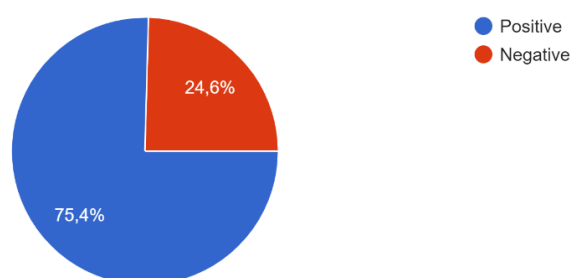


Figure 7 Sentiment towards Tesla Pie chart (Source: Google Forms)

For the ownership of an electric vehicle, 107 (89.9%) people responded no and a total of 12 (10.1%) said yes.

Do you own an electric vehicle?
119 respostas

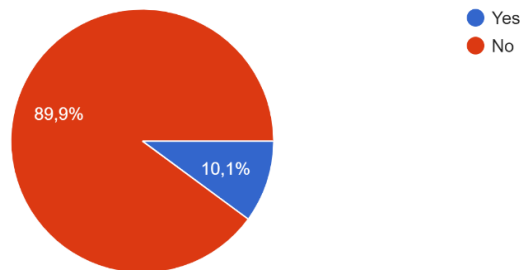


Figure 8 Ownership of electric vehicle Pie chart (Source: Google Forms)

Lastly, for the sentiment towards tesla, 83 (69.7%) responses were positive, and 36 (30.3%) responses were negative.

What is your sentiment towards Tesla?
119 respostas

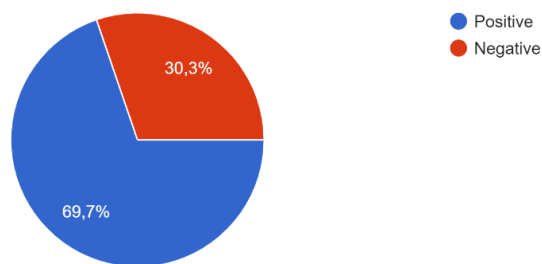


Figure 9 Sentiment towards Tesla Pie chart (Source: Google Forms)

Chapter 4-Results and Discussion

Results

As previously said in the methodology we are using the PLS-SEM model for the analysis and interpretation of the results for the research questions of this thesis. First the validity and reliability of the measurement model was measured, follow by the evaluation of the structural model, accordingly to the authors Hair, J. F *et al.*, (2019).

First the PLS-SEM diagram was observed like we can see in the figure X.

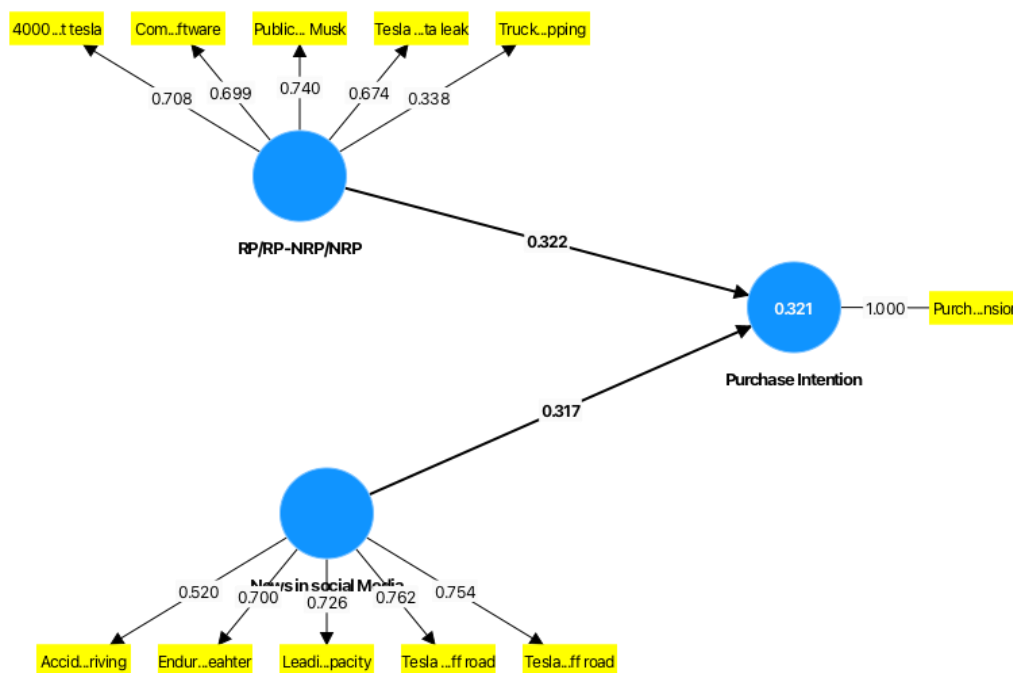


Figure 10: PLS-SEM model (Source: PLS Software)

The number shown on figure 10 inside the right circle (0.321) represents the proportion of variance in the latent variable that is explained by other latent variables. The arrows on the diagram are called path coefficients, that indicate the strength of the effect the variables have on one another. The magnitude of these path coefficients enables one to rank their relative statistical significance.

The second step is assessing internal consistency reliability, there are two measures to evaluate this, being the most used “Jöreskog’s (1971) composite reliability. Higher values generally indicate higher levels of reliability. For example, reliability values between 0.60 and 0.70 are considered “acceptable in exploratory research,” values between 0.70 and 0.90 range

from “satisfactory to good.” Values of 0.95 and higher are problematic, as they indicate that the items are redundant, thereby reducing construct validity” (Hair, J. F *et al.*, 2019, p.8).

The second measure used is the Cronbach’s alpha which is less precise measure as it produces lower values than the composite reliability. (Hair, J. F *et al.*, 2019), better explain by the author “Cronbach’s alpha is a less precise measure of reliability, as the items are unweighted. In contrast, with composite reliability, the items are weighted based on the construct indicators’ individual loadings and, hence, this reliability is higher than Cronbach’s alpha.” (Hair, J. F *et al.*, 2019, p.8).

Per table 1, we can see that the Composite reliability for News in social media was 0.824 which indicates a good Internal consistency reliability because its value is higher than 0.7 and that the Cronbach’s alpha for news is social media was also good as it also is higher than 0.7, regarding RP/RP-NRP/NRP the composite reliability is higher than 0.7 which indicates a good internal consistency reliability, but the Cronbach’s alpha is lower than 0.7 which indicates an acceptable internal consistency reliability but only in exploratory research. With this information we can say that both items were confirmed regarding internal consistency reliability.

	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
News in social media	0.730	0.824	0.487
RP/RP-NRP/NRP	0.628	0.775	0.421

Table 1: Internal consistency Reliability (Source: PLS Software)

The third step is to evaluate convergent validity, that is indicated by AVE (Average variance extracted) which is confirmed if the value of AVE is higher than 0.5 (Hair, J. F *et al.*, 2019), both variable failed this test as we can see in Table2 as their value is 0.487 for News in social Media and 0.421 in RP/RP-NRP/NRP, being convergent validity “the extent to which the construct converges to explain the variance of its items” (Hair, J. F., 2019, p.9), both variable failed to explain the variance of its items.

Discrimination validity

Discrimination validity is the degree to which “a construct is empirically distinct from other constructs in the structural mode” (Hair, J. F *et al.*, 2019, p.9), to measure this traditionally people use the Larcker criterion (Hair, J. F *et al.*, 2019)., but I used the HTMT ratio of correlations to measure the discrimination validity in these variables

“The HTMT is defined as the mean value of the item correlations across constructs relative to the (geometric) mean of the average correlations for the items measuring the same construct” (Hair, J. F., 2019, p.9), for its values we can say that there is discrimination validity if the value is below 0.9 or in some cases 0.85.

As we can see in table 3 the values are all below 0.9 so there is confirmation of discrimination validity in all items.

	News in social media	Purchase Intention	RP/RP-NRP/NRP
News in social media			
Purchase Intention	0.579		
RP/RP-NRP/NRP	0.831	0.597	

Table 2 HTMT (Source: PLS Software)

Collinearity assessment

After assessing the measurement model, the structural model needs to be assessed but before its assessment the collinearity should be tested.

Collinearity is tested by using the VIF values, that gives a way to know if there are collinearity problems, if the VIF values are above 5 or between 3 and 5 there is collinearity problems, behind the ideal value of VIF lower than 3 (Hair, J. F *et al.*, 2019).

	VIF
4000 complains about tesla	1.763
Accidents regarding self-driving	1.141
Comments about safety of the tesla software	1.839
Endures Extreme weather	1.607
Leading brand in battery capacity	1.580
Public opinion on Elon Musk	1.411
Purchase Intension	1.000
Tesla Data leak	1.351
Tesla in off road	1.601
Tesla superior to jeep in off road	1.689
Truck drove 1732 km without stopping	1.034

Table 3: Collinearity (Source: PLS Software)

As per the table 4, we can see all the items have a VIF below of 3 so there are no collinearity problems in no item.

Coefficient of determination

After the measuring model is deemed sufficient, the assessment of the structural model can begin.

First the coefficient of determination (R^2) was evaluated, the (R^2) gives” the magnitude of the variability of endogenous variables that can be explained by exogenous variable” (Purwanto, A., & Sudargini, Y. 2021),if the values are between 1 to 0.75 its considered substantial explanatory power, if the values range to 0.50 its moderate explanatory power, and around 0.25 are considered weak, but there are exceptions to this values, as a value of 0.10 can be significant depending on the sample, and the fact that there are low predictor constructs means that is normal too have a low number in the R^2 test. (Hair, J. F., 2019).

With this information looking at table 5, we can see that the value of r-square is 0.310, the fact that there are few predictors contract in analysis we can say that this value is significant(Hair, J. F., 2019)., which one can conclude that the two latent variables News in social media and RP/RP-NRP/NRP explain 31.0% of the variance in Purchase intention.

	R-square	R-square adjusted
Purchase Intention	0.321	0.310

Table 4: Coefficient of Determination (R^2) (Source: PLS Software)

Path coefficients

According to the authors Preacher, K. J., & Hayes, A. F. (2008) it was used a bootstrapping procedure to analyse the relationship between constructs, examining the path coefficients and related t statistics.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
News in social media -> Purchase Intention	0.317	0.322	0.070	4.520	0.000
RP/RP-NRP/NRP -> Purchase Intention	0.322	0.334	0.073	4.389	0.000

Table 5-Path coefficients (Source: PLS Software)

“The P value is defined as the probability under the assumption of no effect or no difference (null hypothesis), of obtaining a result equal to or more extreme than what was actually observed. The P stands for probability and measures how likely it is that any observed difference between groups is due to chance” (Dahiru, T., 2008, p22), the test for the hypothesis is conducted with the assumption that β (original sample “O”) >0 , at the 0.05 significance level or 95% significant level, and if $P \leq 0.05$ the hypothesis is accepted, otherwise it is rejected.

As it is visible in table 5, all hypotheses were accepted, because all β are above 0, (0.317 and 0.322) at a 0.05 significance level and the p values are below 0.05.

Discussion

The Hypothesis 1 was based on various factors mentioned by different authors about purchase intention and social media, mainly 3 factors: first are the influences in purchase intention by social media ((Renu & Gupta ,2020) (Alalwan, 2018) (Kamal, & Shnarbekova, 2021), (Zhang *et al.*,2017), secondly the factors affecting purchase intention in the electric vehicle market(Brase, 2019), (Hu .2022), and thirdly eWOM and its affects in social media news. (Sulthana & Vasantha 2019), (Moustakas, 2015), (Leong *et al.*, 2021). (Erkan & Evans, 2016).

As previously said and proved H1 (News and social media have a positive impact in purchase intention of the costumer) was confirmed and we can see that news in social media have a positive impact to purchase intention, like many authors said news in social media has an effect in purchase intention in different dimensions, the authors (Renu & Gupta ,2020) and (Alalwan, 2018) talked about rewards, interactions between brand and consumer are all positive effects on purchase intention, news in social media also tend to be discussed in terms of the use of different social media platforms to spread news and target different audiences that all can have positive purchase intentions (Kamal, & Shnarbekova, 2021), (Zhang *et al.*,2017), also something that can also confirm this hypothesis as per the figure 6 a number of different platforms are used by the participants of this sample.

For tesla perceived value is one of the main traits that purchase intention is based on like the author (Hu ,2022) said, and it's a notion also sustained by the author (Brase, 2019) that speaks that the electric vehicle market watches its most noticeable variations on purchase intention due to economic and sustainability factors. News like the ones talked in the survey about tesla being the leading company in battery capacity, or the capacity of tesla in off road can help confirm the affect in social media news, as it can show how it has an impact in people and how the perceived value of a tesla can be evaluated.

The third point and is normally highly associated with news in social media is eWOM, as a lot of reviews and analysis in the news published are mostly interactions between people in social media platforms like the authors (Sulthana & Vasantha 2019), (Moustakas, 2015), (Leong *et al.*, 2021). (Erkan & Evans, 2016), talked and analysed.

As established this hypothesis agrees with the literature currently talked and studied in this particular field, and with the confirmation of this hypothesis with the pls software we can conclude that news in social media have indeed a positive impact in purchase intention in regards to tesla, being tesla the biggest company in the electric vehicle market, and the methods of marketing being a lot of time social media either to announce or communicate with their community when there is a problem with the cars, is normal that news have an effect in purchase intention regarding tesla, either positive or negative because as the survey established “bad” and “good “news were presented and both had an effect.

For the second hypothesis News from more respected papers or personalities have a positive impact on purchase intention of the consumer, was also confirmed as previously established, this hypothesis is in line with the literature, and it can show that effects of credibility and eWOM have a positive effect on purchase intention regarding tesla, like the authors (Moturu, S. T., & Liu, H., 2011), (Cooley, D., & Parks-Yancy, R., 2019), (Wathen, C.N. and Burkell, J., 2002), (Rieh, S. Y., & Danielson, D. R., 2007), (Kioussis, S., 2001), all talked about credibility and how it can affect trust in information, something talked about also by the authors (Erkan & Evans, 2016) and (Cooley & Parks-Yancy, 2019), when discussing the eWOM shared on social media. The fact that Tesla is a market leader and a very social media-oriented company in terms of marketing also helps in this hypothesis and is also in line with what the authors (Sulthana & Vasantha 2019) and (Moustakas, 2015) found.

Chapter 5-Conclusion

The electric vehicle market has been an ever-growing market, as well as social media, and it moves a lot of interest and money from different brands around the world. The research problem of this thesis aimed to analyse the influence of Tesla-related news on social media and its effects on purchase intention, this research was supported by 3 aspects.

Firstly the objectives that were the assessment of the sentiments expressed by users in response to Tesla-related news on social media, identifying both positive and negative sentiments, and also investigate the relationship between exposure to Tesla-related news on social media and consumers' purchase intention, considering factors such as trust in information sources, perceived credibility of news, and the individual's prior attitudes towards electric vehicles, (eWOM).

Secondly utilizing research questions to further develop the topic, being the questions, RQ1: Is the news on social media affecting the purchase intention of the consumer? RQ2: Can news from more respected papers or personalities affect the purchase intention of the consumer? These were created in mind to understand better the role of source credibility and further understand the impact of news in social media.

Lastly the hypothesis 1 and 2 were both accepted so it can be said that social media does have an impact on purchase intention which responds to our research problem, additionally responded to the objectives presented as it showed that Tesla-related news on social media are affected by trust and credibility, also the sentiment and previous feelings regarding Tesla have an effect on purchase intention as it is noticeable in the accepted hypothesis and also the questions presented in the survey like figure 7 and 9, also the use of eWOM to influence purchase intention was also confirmed.

With the hypothesis being accepted and the previous aspects explained and justified this investigation can conclude that social media affects purchase intention, and that news from respected papers or personalities affect the purchase intention of the consumer, all this is in line with the literature about social media, and now with this finding there are also findings regarding social media news and the electric vehicle market where Tesla operates, extending this way the research in this area.

Tesla is number one on the electric vehicle market so the need to investigate the research problem proposed (the correlation between social media news and the impact it has on

consumer purchase intention), is useful to further understand the success of tesla in this department and also It could help other brands and authors to understand this problem better and utilise some of the information provided by this findings in their work. Practically speaking it can be utilised to have a more inform decision making regarding social media and can further improve marketing strategies of tesla or competitors that might want to utilize benchmarking to further improve their brand. For researchers and future studies this work can serve as a foundation for future research in the electric vehicle market.

Future research and limitations

For future research regarding this topic there are some ideas derived from the literature and findings. Firstly, from what is told in the literature and how the EV market is devolving an interesting topic to be further developed would be the impact of social media in the stock market, has it's not a very developed field and in a more and more digitalized world , the importance of social media will be felt in all areas of business , being the stock market a very important one it would be advised to research and understand more the phenomenon of news in social media affecting the stock market.

Another important factor to help further develop this research would be to see how sustainability can affect purchase intention, as it has a growing level of importance and relevance to consumer behaviour in social media.

A factor talked in the literature is also the importance of trust specifically in social media, tesla had many cases of social media crises so it would be important future research the exploration of tesla response to adversity in social media and how they gain consumer trust back after a crisis

For limitations this study presents firstly the fact that it's not easy to measure people's opinions, as they could be influenced by the writing of the question even tough the questions were writing to be the most neutral as possible, also opinions and attitudes are something people can give false information has their perceived opinion might not be their opinion in an actual situation.

Furthermore, the sample size of this study was only of 119 people, and that is not a very big sample to thoroughly investigate all segments of the population and might not accurately represent in some respects the sentiments of the broader population.

Lastly the short number of predictor construct in analyses limits the statistical power of the sample and it should be noted that some predictor constructs like relevance of news content, usefulness of social media news or brand awareness are all constructs that should be utilized in future research.

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Annexes

Annex A-Data

Categories		Total
Age	<25	25
	>60	13
	25-40	32
	40-60	49
Gender	Female	39
	Male	77
	Prefer not to say	3
Time spent on social media?	>6 hours a day	2
	0-2 hours a day	63
	2-4 hours a day	36
	4-6 hours a day	13
	I dont use	5
Social Media Platforms	X(Twitter)	28
	Reddit	19
	Facebook	63
	Telegram	13
	TikTok	23
	Instagram	88
Sentiment towards electric vehicles	Negative	29
	Positive	89
	(blank)	
Own and electric vehicle	No	107
	Yes	12
Sentiment towards tesla	Negative	36
	Positive	83

Annex B-Survey

During the last few months I have gathered 3 news from different news outlets regarding Tesla. In the following questions I want to know how you felt towards this news

Please tell me how much these news affected your purchase intention towards Tesla (Company)

How do you feel about the data leak of Tesla, and could it affect the trust in the company? (1- Negative Impact, 3 No Impact, 5 Positive Impact) [Report: 'massive' Tesla leak reveals data breaches, thousands of safety complaints | Tesla | The Guardian](#)

1 2 3 4 5

Negative Impact ☐ ☐ ☐ ☐ ☐ Positive Impact

How do you feel about Tesla being the leading company in battery capacity? (1- Negative Impact, 3 No Impact, 5 Positive Impact) [Alex on X: "Tesla Leads in Q3 with Battery Deployment on Roads Tesla is the company with the globally largest volume of batteries deployed on roads in Q3 even if you include PHEVs and Hybrids "Tesla led the pack globally with 31.7 GWh deployed onto roads in the three months through... https://t.co/7w0QVfm7zc" / X \(twitter.com\)](#)

1 2 3 4 5

Negative Impact ☐ ☐ ☐ ☐ ☐ Positive Impact

Does the public opinions of the CEO of Tesla Elon Musk have an impact on your purchase intention? (1- Negative Impact, 3 No Impact, 5 Positive Impact)

1 2 3 4 5

Negative Impact ☐ ☐ ☐ ☐ ☐ Positive Impact

During the last few months I have gathered 3 news from different news outlets regarding Tesla. In the following questions I want to know how you felt towards this news

Please tell how this news affected your purchase intention towards Tesla (Car)

How do you feel about the capacity of Tesla in off-road? (1- Negative Impact, 3 No Impact, 5 Positive Impact) [Teslaonomics on X: "A Tesla off-roads better than the rest of these cars https://t.co/lefVSvCSqI" / X \(twitter.com\)](#)

Negative Impact 1 2 3 4 5 Positive impact

☐ ☐ ☐ ☐ ☐

How do you feel knowing that a Tesla won in an off-road race versus two Jeeps? (1- Negative Impact, 3 No Impact, 5 Positive Impact) [Teslaonomics on X: "A Tesla off-roads better than the rest of these cars https://t.co/lefVSvCSqI" / X \(twitter.com\)](#)

Negative Impact 1 2 3 4 5 Positive Impact

☐ ☐ ☐ ☐ ☐

How do you feel knowing there was a truck that drove 1732 km in a single day? (1- Negative Impact, 3 No Impact, 5 Positive Impact) [Tesla Semi electric truck does 1,732 km in a single day in independent trial \(thedriven.io\)](#)

Negative Impact 1 2 3 4 5 Positive Impact

☐ ☐ ☐ ☐ ☐

How do you feel about the ability of Tesla to endure harsh conditions and extreme temperatures? (1- Negative Impact, 3 No Impact, 5 Positive Impact) [Tesla Asia on X: "Our vehicles undergo extreme cold testing all year round so that they can handle whatever life throws at them—anywhere in the world. https://t.co/56EP9loPgX" / X \(twitter.com\)](#)

Negative Impact 1 2 3 4 5 Positive Impact

☐ ☐ ☐ ☐ ☐

How do you feel about the comments made by former tesla employee that their software is not safe to use in public roads?(1- Negative Impact,3 No Impact,5 Positive Impact)[Ex-Tesla employee casts doubt on car safety - BBC News](#)

Negative Impact 1 2 3 4 5 Positive Impact

☐ ☐ ☐ ☐ ☐

How do you feel about the number of accidents that tesla has related to their self-driving technology?(1- Negative Impact,3 No Impact,5 Positive Impact)[Tesla 'Autopilot' crashes and fatalities surge, despite Musk's claims - The Washington Post](#)

Negative Impact 1 2 3 4 5 Positive Impact

☐ ☐ ☐ ☐ ☐

How do you feel about the 4,000 complaints on sudden acceleration or phantom braking that tesla has?(1- Negative Impact,3 No Impact,5 Positive Impact)[Report: 'massive' Tesla leak reveals data breaches, thousands of safety complaints | Tesla | The Guardian](#)

Negative Impact 1 2 3 4 5 Positive Impact

☐ ☐ ☐ ☐ ☐