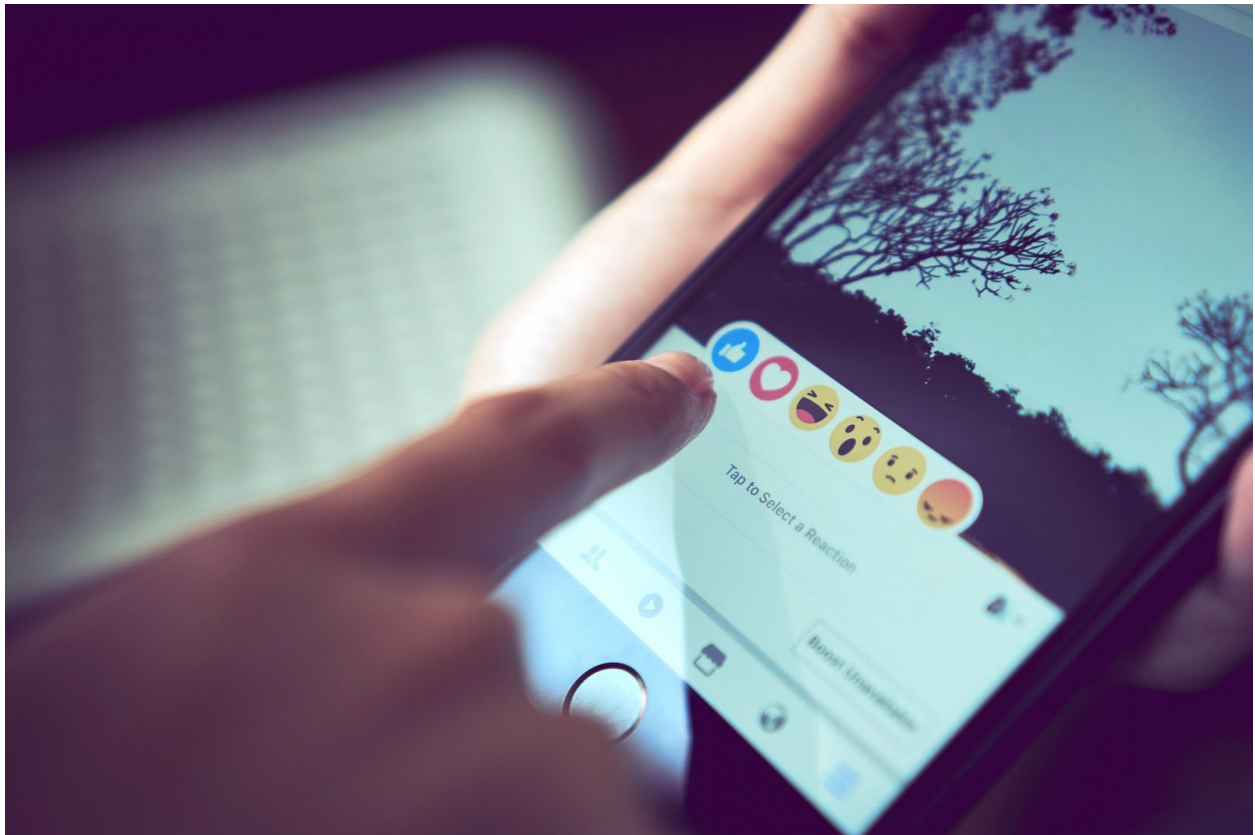# How Likes and Engagement Affect
User Trust and Sentiment of Facebook Posts

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Introduction

In today's modern times, social media is being used as a powerful tool to connect people from around the world, share knowledge and even sell products through social media advertising. Many consumers have begun to see it become harder and harder for them to distinguish fact from fiction or a good product from a bad product. This has become increasingly apparent in the popularization of "Fake News" and for products "Scams", where consumers are aware some posts on social media may be deceiving or lack integrity.

Through our research we discovered that many social media users have turned to the primitive nature of 'following the crowd' when deciding what to trust on social media. Especially for advertisements and posts the user is not familiar with already. From our research it appears that users pay attention to posts people positively interact with the most and trust these posts due to positive 'social proof'. We set out to prove this theory.

Research Question: How does a posts engagement, through emojis, likes and comments affect the consumer opinion of the post? And how can this influence their initial opinion of a brand?

Hypothesis: High volumes of positive engagement positively affect the consumer opinion of a post and the brand involved in the post. Whereas negative engagements have a negative affect.

Independent Variable: The reactions on the posts whether they are positive or negative.

Dependent Variable: Consumers' opinion of the brand measured by behavioral intention scales.

Methodologies

For our research we used a combination of qualitative and quantitative approaches. To collect our qualitative data we conducted in-depth interviews one-on-one with people fitting our sample. There were three interviews at about 20 minutes each in a semi-structured format. We conducted the interviews to gain valuable insight into the minds of a small portion of our sample, male and female facebook users. From the interviews we were able to discover participant's concerns with privacy on Facebook, fake news concerns, the social weight of likes and comments, and a general distrust of advertisements.

To collect our quantitative data we conducted an extensive online survey using a the surveying software Qualtrics. Our surveys built off of the original questions posed in our interviews combined with the added insight gained from our qualitative data. The survey questions examined the effect of a fictitious brand's, post's emoji engagement on the consumers opinion.

In our survey we split test our sample between two groups evenly. One group is shown a post with positive reactions (e.g. wow, laughing, heart) while the other group is shown a post with negative reactions (e.g. sad, angry). Both of these posts are identical except for their engagement. They contain neutral messaging and a neutral image.

Our Brand Posts - Same Message, Different Engagement (Likes, Emojis)

The brand Direct Span was created and intended to be neutral in all aspects outside of the independent variable. During our data collection we controlled the post's content (copy and image), the size of the engagement, the quality of engagement, and the ambiguity of the brand. From the data collected from several behavioral intention scales we analyzed the data using one-way ANOVA, regression, correlation and frequency analysis.

Our goal was to measure the attitude of the consumer on a simple positive and negative scale. We understand that consumer behavior is much more complex than this, but hope to gain some understandings and insight through quantitative analysis techniques.

Results

125 people took our survey on Qualtrics and we did our analysis based on 100

participants' responses by using IBM SPSS software. After conducting one-way ANOVA,

bivariate correlation analysis, bivariate regression analysis and frequency analysis, we had the

following findings:

1. Facebook users who see a post with positive reactions are more likely to like an

   unfamiliar brand while those who see negative reactions are slightly likely to dislike it.

2. Facebook users who trust a brand based on positive engagements can be swayed by

   negative engagements.

3. The amount of likes and content of comments will affect Facebook users' perception of a

   post more than emojis.

In addition, we had an interesting finding that people who think there is a trust issue on

Facebook commercial posts are more likely to be swayed by negative comments under a brand,

which has been brought up to our attention. In the future we may conduct a research on that.

In conclusion, we accept our hypothesis that high volumes of positive engagement

positively affect the consumer opinion of a post and the brand involved in the post. Whereas

negative engagements have a negative affect.

Discussion

Qualitative Research Analysis: During in-depth interviews, each of us interviewed a college student. Our common finding is that although all of them said they would somehow be affected by likes and engagements, they were concerned about whether engagements and posts can be trusted. This kind of untrust prevents them from trying unfamiliar brands' products. Besides trust issue, other concerns were around bots, privacy issues and fake news.

Quantitative Research Analysis: Our analysis includes four steps to test our hypothesis:

I. Do positive/ negative reactions affect perceptions?

II. If they do, is there a positive correlation between these two?

III. What kind of reaction (likes, emojis, comments) affects perceptions most?

IV. How do people judge whether others like a brand based on its Facebook post?

I. First of all, we want to know whether positive/ negative reactions affect perceptions. Our hypothesis (H1) here is that Facebook users who see a post with positive reactions are more likely to like an unfamiliar brand while those who see negative reactions are more likely to dislike it.

After showing two groups of people two fake brand posts with same contents and different reactions and asking them for their sentiments, we conducted one-way ANOVA.

Descriptives

How favorable do you feel about DirectSpan Performance Tires after reading the above post?

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
People who see positive reactions	51	4.33	.841	.118	4.10	4.57	2	7
People who see negative reactions	49	3.98	1.233	.176	3.63	4.33	1	6
Total	100	4.16	1.061	.106	3.95	4.37	1	7

ANOVA

How favorable do you feel about DirectSpan Performance Tires after reading the above post?

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.127	1	3.127	2.829	.096
Within Groups	108.313	98	1.105		
Total	111.440	99			

Our data is marginally significant. On a scale of 1 ("very unfavorable") to 7 ("Very favorable"), nobody thinks the brand is "very unfavorable" in the "positive reaction" group and no one thinks it is "very favorable" in the "negative reaction" group.

By comparing the means of both groups, which is 4.33 for "positive reaction" group and 3.98 for "negative reaction" group, we found that on average, people who see positive reactions tend to like an unknown brand while people who see negative reactions are less likely to like it.

II.   Based on this conclusion, we then conducted a bivariate correlation analysis on two other questions to figure out if there is a positive correlation between reactions and perceptions. The questions are: "Do you trust a brand with a post that has a large number of positive reactions (likes, emojis etc.)?" and "If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?"

Our hypothesis (H2) here is: There is a relation between the tendency to trust a brand whose Facebook post has a large number of positive reactions and the possibility that a large number of negative reactions under a familiar brand affects my own opinion.
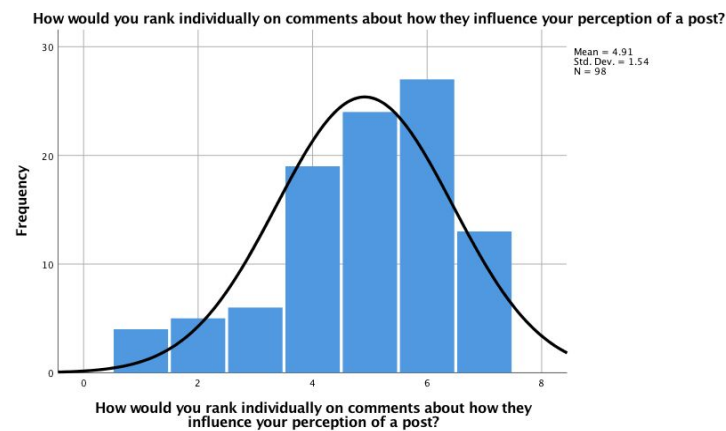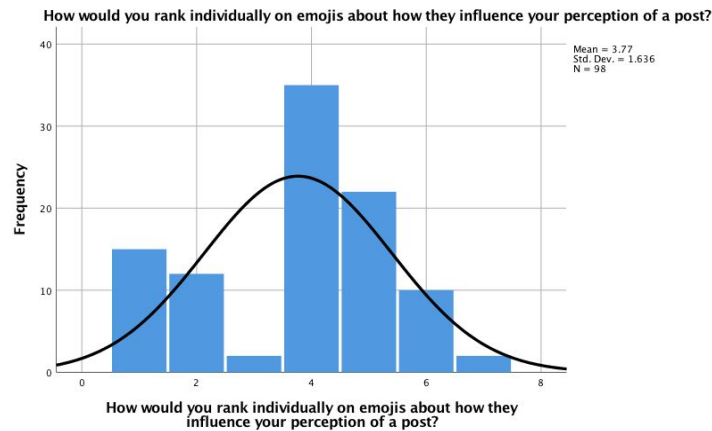
Correlations

		Do you trust a brand with a post that has a large number of positive reactions (likes, emojis etc.)?	If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?
Do you trust a brand with a post that has a large number of positive reactions (likes, emojis etc.)?	Pearson Correlation	1	.699**
	Sig. (2-tailed)		.000
	N	101	100
If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?	Pearson Correlation	.699**	1
	Sig. (2-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

By taking a look at the p-value and Pearson correlation coefficient, we confirmed that there is a statistically significant relationship between these two. The relation is strong and positive. This indicated that Facebook users who trust a brand based on positive engagements can be swayed by negative engagements.
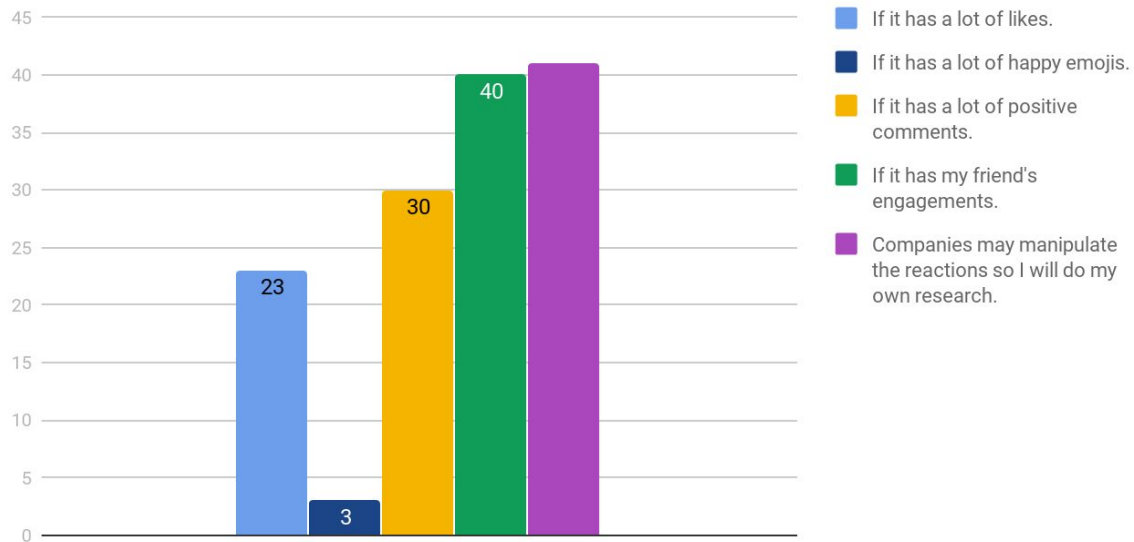
III. Now we know that there is a strong and positive relationship between reactions and perceptions. We wonder what kind of reactions (likes, emojis and comments) affect perceptions most. On a scale of 1 to 7 (from "extremely unlikely" to "extremely likely"), we asked our

participants to rank individually on likes, emojis and comments about how they influence their

perception of a post and did a frequency analysis based on this question.

How would you rank individually on emojis about how they influence your perception of a post?

Mean = 3.77
Std. Dev. = 1.636
N = 98

How would you rank individually on emojis about how they influence your perception of a post?

How would you rank individually on comments about how they influence your perception of a post?

Mean = 4.91
Std. Dev. = 1.54
N = 98

How would you rank individually on comments about how they influence your perception of a post?

The means are 4.39 for likes, 3.77 for emojis and 4.91 for comments, thus we conclude

that on average, Facebook users think the amount of likes and content of comments will affect

their perception of a post more than emojis.

If you saw an unfamiliar brand's post on Facebook, how would you judge whether people like that brand?

Legend:
- If it has a lot of likes.
- If it has a lot of happy emojis.
- If it has a lot of positive comments.
- If it has my friend's engagements.
- Companies may manipulate the reactions so I will do my own research.

IV.   The last step is to figure out how people judge whether others like a brand based on its Facebook post. We suppose they are unfamiliar with that brand and offer five answers for them to select all that apply.

40 participants (among 100) say they value their friend's engagements, 30 value positive comments and 23 value likes. Emoji does not play a great role, which is consistent with our finding in part III. Our conclusion is that people judge whether others like an unfamiliar brand on Facebook based on whether its post has their friend's engagements or a lot of positive comments or a lot of likes.

However, we had an interesting finding. There are 9 participants who think companies may manipulate the reactions but still make their judgements based on reactions, which raised our interest.

To confirm this finding, we conducted bivariate correlation analysis on two other questions: "If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?" and "Do you think trust issue is a problem on commercial posts on Facebook?"

Correlations

		If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?	Do you think trust issue is a problem on commercial posts on Facebook?
If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?	Pearson Correlation	1	.663**
	Sig. (2-tailed)		.000
	N	100	100
Do you think trust issue is a problem on commercial posts on Facebook?	Pearson Correlation	.663**	1
	Sig. (2-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Our data is statistically significant and the correlation here is strong and positive. People who think there is a trust issue on Facebook commercial posts are more likely to be swayed by negative comments under a brand.

Managerial Implications

For the increasingly social media focused brands looking to leverage Facebook's large pool of daily active users our research provides a valuable insight. For brands who want to improve the efficiency of their social media marketing they should focus on the quantity and quality of engagements, especially likes and comments. This can take many different forms depending on the company and brand. It is important for these brands to also make sure they focus on nurturing a positive social influence on their Facebook pages. To maintain trust they must also avoid looking like spam or fake news as our interview participants showed a high aptitude for seeing through insincere or unethical marketing practices on Facebook.

"If it seems like a lot ads are present I don't like that. You know it's something to be wary of"

-Excerpt from interview with Luke

Limitations & Future Research

A limitation on our current research was the ability to only add one example for the participants to compare when determining the effect likes and engagement has on customer sentiment. We would have preferred to set up a vast matrix of mock posts to collect a wider array of data. Another limitation was that all of our interviewees were college students, which increased the possibility of us getting similar answers.

In the future we may conduct a research on correlation between user's behaviors and trust issues since trust management has become one of the most important issues in online environment, especially social media marketing. Additionally we would like to use a larger amount of example posts in order to get a better understanding of the exact reactions consumers will have when determining whether or not to trust a post.

Additionally, we may conduct another correlation analysis between privacy concerns and trust issues since we believe these two variables are likely to be highly correlated with each other.

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Appendix

Interview Guide
1. What kind of Facebook posts will make you more likely to click on the link or article? (The one that has a shocking headline, one that includes videos or pictures or one that has a high positive/negative engagement)
2. What will affect your perception of a post?
3. Will the engagement (likes, emojis, comments) on a Facebook post affect your perception of it?
4. If so, how does the amount of likes and reactions affect your perception of the post?
5. If you saw an unfamiliar company's post on Facebook how would you judge whether people like that brand?
6. Do you trust a brand that's post have a huge number of reactions? How about only a few?
7. Will you try an unfamiliar company's products or service if you noticed that there is an overall positive engagement on its posts?

Survey
1 Do you use Facebook? ● Yes ● No *Skip To: End of Survey If Do you use Facebook? = No*
2 How often do you use Facebook? ● At least once a day ● At least once a week ● Every month ● Less often than every month *Skip To: 4 If How often do you use Facebook? != At least once a day*
3 On average, how many hours do you spend daily on Facebook? ● Less than 1 hour ● 1-2 hrs per day ● 3-4 hrs per day

- More than 4 hrs per day

4 How many friends do you have on Facebook?

- Fewer than 50
- 50-100
- 101-200
- 201-300
- 301-400
- 401-500
- More than 500

BlockRandomizer: 1 - Evenly Present Elements

Standard: Post that has positive reactions (1 Questions)
Standard: Post that has negative reactions (1 Questions)

5 Use The Following Image to Answer The Questions Below…

DirectSpan™ Performance Tires
7 hrs · 🌐

No matter which road you travel, or how far the destination, the most reliable name in tires will get you there. DistanceSpan™ Performance Tires

Amber Mac and 1.4K others   62 Comments 45 Shares

👍 Like   💬 Comment   ➡ Share

How favorable do you feel about DirectSpan Performance Tires after reading the above post?

- Very Unfavorable
- Unfavorable
- Somewhat Unfavorable
- Neither Favorable Nor Unfavorable
- Somewhat Favorable
- Favorable
- Very Favorable

DirectSpan™ Performance Tires
7 hrs · 🌐

No matter which road you travel, or how far the destination, the most reliable name in tires will get you there. DistanceSpan™ Performance Tires

😡😢😨 8.4K   Top Comments ▾

👍 Like   💬 Comment   ↗ Share

How favorable do you feel about DirectSpan Performance Tires after reading the above post?

- Very Unfavorable
- Unfavorable
- Somewhat Unfavorable
- Neither Favorable Nor Unfavorable
- Somewhat Favorable
- Favorable
- Very Favorable

6 Which of the following attributes of a Facebook post makes you more likely to click on the link or article? (please check all that apply)

- If it has a shocking/interesting headline.
- If it has photos and/or video.
- If it has a lot of positive/negative engagements (likes, emojis, comments).
- If it has my friend's engagements (likes, emojis, comments).
- Others, please indicate:

7 Please indicate how likely you will read the post if the content is related to...?

	Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
News							
Sports							
Politics							
Celebrity							
Health Care							
Entertainment							
Fashion & Beauty							
Commercial posts							
Company and Job Searching							

8 Does the engagement (likes, emojis, comments) on a Facebook post affect your perception of it?

- Extremely unlikely
- Moderately unlikely
- Slightly unlikely
- Neither likely nor unlikely
- Slightly likely
- Moderately likely
- Extremely likely

9 How would you rank individually on comments, likes and emojis about how they influence your perception of a post?

	Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
Likes							
Emojis							
Comments							

10 Do you look at the reactions before you read the posts? (please check all that apply)

- I look at the amount of likes before I read the post.
- I look at emojis before I read the post.
- I read comments before I read the post.

● No
11 If you saw an unfamiliar brand's post on Facebook, how would you judge whether people like that brand? (please check all that apply)   ● If it has a lot of likes.   ● If it has a lot of happy emojis.   ● If it has a lot of positive comments.   ● If it has my friend's positive engagements (likes, emojis, comments).   ● Companies may manipulate the comments so I will do my own research online.
12 Do you trust a brand with a post that has a large number of positive reactions (likes, emojis etc.)?   ● Never   ● Sometimes   ● About half the time   ● Most of the time   ● Always
13 Will you try an unfamiliar company's products or service if you noticed that there is an overall positive engagement on its posts?   ● Yes, if it has a very competitive price.   ● Yes, if it's affordable for me.   ● No
14 If there were a lot of negative comments under a brand that you are familiar with, would that affect your own opinion?   ● Definitely no   ● Probably no   ● Might or might not   ● Probably yes   ● Definitely yes
15 Do you think trust issue is a problem on commercial posts on Facebook?   ● Definitely no   ● Probably no   ● Might or might not   ● Probably yes   ● Definitely yes
16 From your perspective, what's the purpose of this interview?
17 What is your sex?   ● Male

● Female

18 In what year were you born?

19 Are you currently...?

- A student
- Employed for wages
- Self-employed
- A homemaker
- Out of work and looking for work
- Out of work but not currently looking for work
- Retired
- Unable to work

20 What is the highest degree or level of school you have completed? If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Primary school
- Middle school
- High school
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

21 What is your total household income?

- Less than $10,000
- $10,000 - $19,999
- $20,000 - $29,999
- $30,000 - $39,999
- $40,000 - $49,999
- $50,000 - $59,999
- $60,000 - $69,999
- $70,000 - $79,999
- $80,000 - $89,999
- $90,000 - $99,999
- $100,000 - $149,999
- $150,000 or more