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Social medial channels are not useful for electronic word-of-mouth in e-commerce service recovery

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Abstract

It is reported that 30% of electronic commerce services fail the first time, and companies must recover from such service failures. Electronic commerce service recovery is a critical issue studied by academics and practitioners. The intention is to find the best strategies to recover from the service failures, regardless of the reasons, so the consumers do not defect from the vendor for future product and service needs and also do not initiate a negative electronic word-of-mouth activity to affect the reputation of the company/product/service. Many studies have focused on the recovery strategies organizations practice to minimize the negative impact of such incidents. In recent research on eCommerce recovery strategies by authors, many respondents indicated that social media platforms played a critical role in venting their frustration about electronic commerce services. Their responses included both positive electronic word-of-mouth and negative electronic word-of-mouth comments. Other researchers have also noted that most positive electronic word-of-mouth was usually made on Facebook. In contrast, negative electronic word-of-mouth was made on Twitter for a more substantial effect. In this study, however, the authors could not find evidence to support previous studies' assertions that social media channels play an important role in electronic commerce recovery strategies

Keywords: social media, electronic word-of-mouth, positive electronic word-of-mouth, negative electronic word-of-mouth e-commerce service recovery

Introduction

Ecommerce, commerce through a digital channel, has been maturing since its origins in the early 1990s. While it matures in developed economies, it proliferates in developing economies. In both economies, the failure of eCommerce has continued, and vendors have developed procedures and strategies to recover from failures. In this recovery process for customers, social media has recently been playing a role in affecting the recovery strategies' performance. The interest of this study is to find the affinity of consumers to use leading social media channels, Facebook and Twitter, in communicating their positive or negative thoughts or feelings through electronic word-of-mouth when there is a failure in electronic commerce. This study attempts to understand the use or adoption of social media channels in the recovery process.

Ecommerce Service Failure

Ecommerce is defined as an online transaction completing a sale or service. It is the general understanding that when a company fails to meet the expectations of an online customer in terms of product defect, packaging error, incorrect or insufficient information about a transaction, marketing efforts, pricing,

website design problems, consumer service problems, payment issues, and website security problems; it would be considered eCommerce service failure. There is a gamut of reasons that customers might identify that there has been a failure in the service of an expected eCommerce transaction. Thus, customers engage with the company with a failed eCommerce transaction. The company, in response, starts a recovery process. When completed, the company may gain satisfaction and higher trust and loyalty from a customer or may get a dissatisfied customer who may defect from being a future customer. (Quach & Thaichon, 2017) (Rosenmayer et al. 2018) (Azemi, et al. 2019)

In the above recovery process, in the formal and informal interaction between a customer and a company, lately, social media has been gaining ground in arbitrating the expectation of a completed service from the recovery process. This electronic word-of-mouth (EWOM) is currently considered an effective way for customers to communicate their thoughts and feelings to their social media friends. Thus, this study focuses on finding social media utilization in the eCommerce service failure recovery process.

WOM and EWOM

Recently, WOM has been defined as “... *communication is conceptualized herein as a group phenomenon – an exchange of comments, thoughts, and ideas among two or more individuals in which none of the individuals represent a marketing source*”. (Bone, 1992) In 1955, Katz and Lazarsfeld found that “... *WOM was seven times more effective than newspaper and magazine advertising, four times more effective than personal selling, and twice as effective as radio advertising in influencing consumers in a phase of brand switching.*” (Katz et al. 1955) While Day (1971) estimated that “... *WOM was nine times more effective than advertising in converting negative or neutral attitudes of consumers into positive ones*”. (Iuliana-Raluca 2012) Researchers have been aware of the intensity of WOM's impact on consumer behavior. Thus, they focused on understanding the reasons why consumers actively spread the word about specific services or products they have experienced linked to satisfaction or dissatisfaction; some focused on understanding in depth the information-seeking behaviors of consumers when they rely only on WOM communications more than on other sources of information; others concentrate on analyzing the reasons why specific personal sources of information are more likely to exert more influence than others. (Iuliana-Raluca 2012) (Widhadh 2012) (Ozcan 2004).

In the Internet era, WOM transformed itself into EWOM, where the nature of WOM changed to a new form of viral marketing. Comparing the two Huete-Alcocer (2017) concludes that the differences between the two occur in communication mode changing from private interpersonal to openly ICT (Information and Communication Technology) mediated; the speed with which the information/comments/opinions are communicated; and, as it is available 24/7 the convenience of accessibility. With the growth of social media, the opportunity for EWOM is further enhanced by the availability of various social channels to rapidly diffuse comments/opinions/concerns to their network of friends and introduce additional entropy in the viral marketing world.

When a customer might resort to expressing one's thoughts or feeling on social media, service recovery is not very clear and is being researched by various scholars. In eCommerce service failure recovery, this depends on the customer's expectations of the vendor in recovering from the type of failure in the transaction. The issue is also mediated by the recovery strategy adopted by a company, moderated by the type of customer or customer characteristics and the role a customer plays in the co-creation of service recovery from failure. (Azemi & Kini 2021) The expectations from a customer can be a simple apology, a fair recovery compensation, or a co-creation of the recovery. (Azemi & Kini 2021) Depending on the type of customer, the strategy could lead to a service recovery paradox where recovery strengthens the brand and enhances the trust and loyalty between the company and the customer or could lead to varying degrees

of failure. (Azemi & Kini 2021) In the meantime, emotional and expressive customers find avenues to express their feelings on the channels where they regularly communicate with others, which may influence others' behavior. One such channel is social media. Social media channels have become convenient and powerful in influencing people.

Hence, in the case of dissatisfactory service recovery, certain types of vindictive and expressive customers might take to social media channels to post negative messages about the company and the products. Such negative EWOM (NEWOM) might influence the silent bystanders' negative perception towards the company at fault, affecting their loyalty to the company or product, and they may switch to another company or product. (Wang et al. 2011) (Quach & Thaichon, 2017) (Azemi et al. 2018) (Weitzl & Hutzinger, 2017)

Negative EWOM (NEWOM) and relationships

The negative expressions from customers in creating a recovery solution between a company and its customer is vital in developing a recovery strategy. Through observations and experimental laboratory studies, Sen et al. (2007) investigate within specific parameters and find that negative EWOM on hedonic product reviews is less valuable than negative EWOM on utilitarian product reviews. They suggest marketers should be concerned about the NEWOM reviews for utilitarian products.

Through an experimental study, Van Noort et al. (2011) conclude that when there is NEWOM, responding to these messages is imperative. They indicate that if a vendor responds through web care (caring for customers through web interaction) to comments by a customer on the customer platform, then there is more value than when the web care is proactive in the brand or marketer-generated platform. They remark that with social media gaining traction for such expressions, they influence silent bystanders even more. Thus, they conclude that a strategy for posting a web care response in a conversational human voice in a reactive form to negative posts on customer-generated platforms or locations is more effective than proactive posts on either platform, although both need a response.

In a recent study in the hotel industry in Thailand, researchers confirmed other researchers' findings that web care is valuable and helpful in countering NEWOM to control undesirable outcomes on customers' perceptions and behavior. (Pongsatorn et al., 2018.) NEWOM is affecting a company in implementing a justice theory-based recovery strategy and providing social constructivism-based customer satisfaction. Wang et al. found that service failure severity, interactional justice, procedural justice, and perceived switching costs have a significant relationship with customer loyalty. That interactional justice, where the customer engages with the company, can mitigate the negative relationship between service failure severity and customer loyalty. (Wang et al., 2011)

This Study

While researching the customer perceptions of eCommerce failure-recovery using a focus group, the authors were surprised by the participant's comments during the interview of participants that social media plays a role in allowing customers to express their concerns about their eCommerce failure. Before, during, and after service, customers seem to express their positive and negative thoughts and feelings on their favorite social media channels. The literature on EWOM, although not in the recovery strategy context, does shed light on social media posts and their influence on passive observers and the influence of these P(positive) EWOMs and N(negative) EWOMs. (Daugherty & Hoffman 2014) As there is no specific study on NEWOM through social media's role in the eCommerce recovery strategy, authors were encouraged to do this study and attempt to close the gap.

The participants during our focus group interviews for the eCommerce failure-recovery strategy made the following comments:

Question: Did you use social media to complain to or reach the company?

Answer: Absolutely. Well, the easiest to use was FB or Twitter. They didn't do much. But everyone knows the experience. But they did not allow me to put it on the wall, so I messaged and put it on my wall. I had many people commenting on my post.

Answer: No. I just don't think it is worth my time to complain online. It is too much time for me.

Answer: I think people complain a lot today, and I don't want to add to that.

Answer: I think some of that could be generational too. I don't have an account. I am not a regular social media user .

Answer: Usually, if customers complain, it is because they don't understand how to use it, not that there is anything wrong with the system .

Answer: I have left reviews on Google.

The above comments intrigued us and indicated a gap in the research for us to inquire and find answers to questions about how eCommerce recovery strategies may be affected by PEWOM and NEWOM. Many studies have generally focused on the impact of EWOM, NEWOM, and PEWOM. However, the impact of NEWOM on eCommerce recovery strategy is an area that has yet to be fully explored. (Yan, 2018) (Kietzman, 2013) (Yugo, 2017) Some of the studies on related EWOM, in general, are summarized in Table 1 as shown below:

Table 1: Summary of EWOM studies

STUDY	SUMMARY
Lee et al. (2015)	<p>Studying the impact of ratios of review text sentiments on product sales using text mining, the authors indicate that a high level of entropy in review text indicates that sentiments or review texts are equally distributed in the case of movie reviews. The authors suggest that the entropy level in review texts positively impacts product sales when entropy is combined with EWOM valence and volume. They point out that their findings imply that deleting negative reviews to enhance product sales may not help online retailers or related parties.</p> <p><i>Relevance: Indicates engagement through both positive and negative EWOM enhances product sales.</i></p>
Askalidis et al. (2016)	<p>Studying the effect of the volume of consumer reviews on the purchase likelihood (conversion rate) of users browsing a product page, the authors say that the conversion rate of a product can increase by as much as 270% as it accumulates reviews, amongst the users that choose to display them. They further mention that high-priced items can increase their conversion rate by as much as 380% as they accumulate reviews compared to 190% for low-priced items. They conclude that reviews provide customers with valuable signals, increasing their purchase propensity.</p> <p><i>Relevance: This shows the impact of EWOM on the conversion rate of visitors, as these electronic reviews provide them valuable signals.</i></p>
Hayashi et al. (2017)	<p>In this research, the authors investigate the influence of NEWOM comments in an online recommender system motivating buyer behavior.</p> <p>The controlled experiment by authors showed that participants who encountered NEWOM developed higher trust toward the product and were motivated to purchase it, implying that cognitive factors such as NEWOM are essential for developing trust and motivating product-buying behavior.</p> <p><i>Relevance: The experiment showed that NEWOM adds value to PEWOM to build higher trust in the product.</i></p>

STUDY	SUMMARY
<p>Chen et al. (2017)</p>	<p>Indicating that EWOM can reflect service quality issues, the authors classify EWOMs into sub-services for business-to-customer (B2C) eCommerce. They use sentiment orientation analysis to determine NEWOMs and to identify service quality issues in sub-services. Using empirical results, they show that the model developed can efficiently locate the problems in the service that can help improve service strategies. <i>Relevance: This study shows how the sentiment analysis of NEWOM helps identify service quality issues and locate problems.</i></p>
<p>Wang et al. (2018)</p>	<p>The authors of this research establish by developing a model using film critics' data that the EWOM content quality, the number of movie network scores, and the film's length will positively impact the consumer's intention to watch. <i>Relevance: The research shows the relationship between EWOM critique of movies and its impact on consumers' intention to watch.</i></p>
<p>Yan et al. (2018)</p>	<p>The authors investigate the impact of social media marketing activities on mobile EWOM on different dimensions of online Consumer Based Brand Equity and behavioral intentions toward the online restaurant industry. The results indicate that mobile EWOM (stimulus) significantly influenced consumer emotional, affective, and cognitive responses; in turn, the emotional affective and cognitive responses significantly influenced behavioral responses. They also found that mobile convenience is the most significant differentiating attribute of mobile EWOM required to form the users' positive attitudes. <i>Relevance: This study shows the impact of social media marketing and mobile EWOM response and their effect on consumer intentions.</i></p>

Although none of the above studies directly indicate the impact of EWOM through social media, in research, there are postulates on how social media engagements help in product enhancement and sales. (Wang et al., 2011) (Chen et al., 2017) There were no studies specifically related to social media and its influence on eCommerce service failure recovery strategies. (Azemi & Kini 2021) Because of this gap, the authors were interested in finding the difference in the usage of social media platforms, Facebook and Twitter, when participants go through a service recovery experience.

Methodology

While conducting research comparing the eCommerce recovery strategies, authors found that some emotional expressions were communicated about the failure of eCommerce recovery services through social media, primarily through Facebook and Twitter. The authors observed a gap in the research and a need to find the perceptions of social media channels' use on the failure recovery process of the customers. In the empirical eCommerce recovery strategy study, authors developed a set of questions precisely (based on the focus group results) to capture the role of social media (per social exchange theory) played in expressing their feelings while going through the process of recovering from an eCommerce service failure. (Wang et al., 2019) (Azemi & Kini, 2021). The interest in this study is to observe if social media platforms, Facebook and Twitter, are essential and used in the service failure recovery process. If both social media platforms are used, we wanted to explore if there were differences in the use of these two social media platforms. The questionnaire link was distributed to students/customers in a midwestern public university in the US, and the responses were collected using Qualtrics software. All the responses were anonymously collected. The specific questions included in the survey are shown in Table 2.

Analysis

As this study intends to research the respondent's reaction through social media channels when they face

an eCommerce service failure, the questions primarily focus on two dominant social media platforms, Facebook and Twitter. Table 2 shows all the questions asked to capture the reactions to various types of eCommerce service failure. This survey included 28 questions relating to eCommerce service delivery failure for Facebook and the same 28 questions relating to failure for Twitter. Table 2 also shows the mean and standard deviation of agreement scores for each of the questions for Facebook and Twitter with (Likert scale 1-Strongly Disagree...5-Strongly Agree). None of the means exceed 3.00 (Neither Agree nor Disagree). In every case, the mean for Facebook-related responses is higher than for Twitter-related responses, indicating a higher tendency to Agree with Facebook as a platform for making their feelings known.

Table 2 Demographics and Statement Responses

DEMOGRAPHICS		N		
Gender:	Male = 86; Female = 82; Other = 2;	170		
Age:	18-25 = 110; 26-40 = 35; 41-55 = 18; 56-67 = 6; 68+ = 1	170		
Occupation:	Not working = 20; Clerical = 24; Supervisory = 9; Managerial = 30; Professional = 34; Owner = 3; Other = 49; Blank = 1	170		
VARIABLE STATEMENTS		N	Mean	Standard Deviation
1F-Facebook	I will tell my Facebook friends that the company's webpage was not responsive.	151	2.63	1.164
1T- Twitter	I will tell my Twitter friends that the company's webpage was not responsive.	131	2.53	1.224
2F-Facebook	I will tell my Facebook friends that I could not make the online purchase from the company.	150	2.65	1.194
2T- Twitter	I will tell my Twitter friends that I could not make the online purchase from the company.	130	2.54	1.234
3F-Facebook	I will tell my Facebook friends that I switched to a different company as the purchasing online from the company took too long.	147	2.63	1.130
3T-Twitter	I will tell my Twitter friends that I switched to a different company as the purchasing online from the company took too long.	129	2.51	1.213
4F-Facebook	I will tell my Facebook friends that I switched to a different company as the purchasing online from that company is cumbersome.	149	2.50	1.094
4T-Twitter	I will tell my Twitter friends that I switched to a different company as the purchasing online from that company is cumbersome.	127	2.50	1.133
5F-Facebook	I will tell my Facebook friends that I reduced online purchasing from a company because of a lack of information on their website	146	2.65	1.118
5T-Twitter	I will tell my Twitter friends that I reduced online purchasing from a company because of a lack of information on their website.	126	2.54	1.150
6F-Facebook	I will tell my Facebook friends that I reducedonline purchasing from a company as I could not buy online because of a lack of information about the product.	145	2.65	1.146
6T-Twitter	I will tell my Twitter friends that I reduced online purchasing from a company as I could not buy online because of a lack of information about the product.	125	2.54	1.154
7F-Facebook	I will tell my Facebook friends if I cannot purchase online because the product was not in stock.	145	2.51	1.113
7T-Twitter	I will tell my Twitter friends if I cannot purchase online because the product was not in stock.	126	2.37	1.086
8F-Facebook	I will tell my Facebook friends that I switched to another company because the company I bought from sent me a different product than what I bought.	145	2.73	1.282
8T-Twitter	I will tell my Twitter friends that I switched to another company because the company I bought from sent me a different product than what I bought.	127	2.54	1.246
9F-Facebook	I will tell my Facebook friends that I never received a product from a company from which I bought a product online.	144	3.06	1.395
9T-Twitter	I will tell my Twitter friends that I never received a product from a company from which I bought a product online.	122	2.78	1.352

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10F-Facebook	I will tell my Facebook friends that the company I bought a product online from, the payment did not go through.	143	2.48	1.137
10T-Twitter	I will tell my Twitter friends that the company I bought a product online from, the payment did not go through.	122	2.37	1.201
11F-Facebook	I will tell my Facebook friends if I have to request a payment page multiple times for online purchasing to occur.	145	2.50	1.094
11T-Twitter	I will tell my Twitter friends if I have to request a payment page multiple times for online purchasing to occur.	122	2.44	1.114
12F-Facebook	I will tell my Facebook friends that a company did not apologize since when I tried to buy a product their website did not work.	144	2.64	1.174
12T-Twitter	I will tell my Twitter friends that a company did not apologize since when I tried to buy a product their website did not work.	124	2.52	1.220
13F-Facebook	I will tell my Facebook friends that it was difficult for me to shop online because of too much information and the company did not have instructions on how to make the purchase.	145	2.50	1.055
13T-Twitter	I will tell my Twitter friends that it was difficult for me to shop online because of too much information and the company did not have instructions on how to make the purchase.	122	2.44	1.114
14F-Facebook	I will tell my Facebook friends that the company had instructions in case it was difficult to purchase online.	145	2.63	1.104
14T-Twitter	I will tell my Twitter friends that the company had instructions in case it was difficult to purchase online.	122	2.56	1.157
15F-Facebook	I will tell my Facebook friends that the company had instructions guiding me on how to order the product.	144	2.65	1.131
15T-Twitter	I will tell my Twitter friends that the company had instructions guiding me on how to order the product.	124	2.60	1.168
16F-Facebook	I will tell my Facebook friends that the company instructed me to visit the physical store because I could not make the purchase online.	146	2.60	1.130
16T-Twitter	I will tell my Twitter friends that the company instructed me to visit the physical store because I could not make the purchase online.	124	2.49	1.144
17F-Facebook	I will tell my Facebook friends that because of the difficulty in making a purchase online the company responds to me about other customers' lack of ability to purchase online and not a solution.	144	2.79	1.228
17T-Twitter	I will tell my Twitter friends that because of the difficulty in making a purchase online the company responds to me about other customers' lack of ability to purchase online and not a solution.	124	2.64	1.264
18F-Facebook	I will tell my Facebook friends if the company sends me a product different from what I ordered and does not replace it with the product I ordered.	145	2.95	1.303
18T-Twitter	I will tell my Twitter friends if the company sends me a product different from what I ordered and does not replace it with the product I ordered.	124	2.75	1.279
19F-Facebook	I will tell my Facebook friends if I do not receive the product I ordered and the company does not provide me with an explanation.	145	2.95	1.271
19T-Twitter	I will tell my Twitter friends if I do not receive the product I ordered and the company does not provide me with an explanation.	122	2.62	1.275
20F-Facebook	I will tell my Facebook friends if the company compensates me as soon as I tell them that the product I received is not what I ordered.	144	2.99	1.335
20T-Twitter	I will tell my Twitter friends if the company compensates me as soon as I tell them that the product I received is not what I ordered.	122	2.70	1.252
21F-Facebook	I will tell my Facebook friends that the company did not send me the product ordered.	144	2.86	1.293
21T-Twitter	I will tell my Twitter friends that the company did not send me the product ordered.	120	2.66	1.293
22F-Facebook	I will tell my Facebook friends that the company sent me multiple emails to ask about the product that did not work.	145	2.76	1.209
22T-Twitter	I will tell my Twitter friends that the company sent me multiple emails to ask about the product that did not work.	122	2.54	1.186

23F-Facebook	I will tell my Facebook friends if the company apologizes and explains to me why I could not make the payment online.	144	2.76	1.148
23T-Twitter	I will tell my Twitter friends if the company apologizes and explains to me why I could not make the payment online.	122	2.51	1.123
24F-Facebook	I will tell my Facebook friends if the company did not guide me in making the payment for the product bought online.	143	2.62	1.067
24T-Twitter	I will tell my Twitter friends if the company did not guide me in making the payment for the product bought online.	122	2.46	1.107
25F-Facebook	I will tell my Facebook friends if the company did not compensate me for additional costs incurred in making payment for the product bought online.	145	2.88	1.285
25T-Twitter	I will tell my Twitter friends if the company did not compensate me for additional costs incurred in making payment for the product bought online.	122	2.70	1.278
26F-Facebook	I will tell my Facebook friends about the credit card denial experience.	142	2.32	1.069
26T-Twitter	I will tell my Twitter friends about the credit card denial experience.	123	2.33	1.150
27F-Facebook	I will tell my Facebook friends about the company website's technical problems and my decision to buy less from the company in the future.	145	2.67	1.196
27T-Twitter	I will tell my Twitter friends about the company website's technical problems and my decision to buy less from the company in the future.	120	2.43	1.128
28F-Facebook	I will tell my Facebook friends when the company replaces the erroneous product they sent with a correct one.	145	2.95	1.309
28T-Twitter	I will tell my Twitter friends when the company replaces the erroneous product they sent with a correct one.	121	2.66	1.215

1 - Strongly DisAgree 2 – DisAgree 3 - Neither Agree nor DisAgree 4 – Agree 5 - Strongly Agree 6- Not Applicable

In Table 3, we show the results of the One Sample T-test. For each variable statement, we tested Facebook and Twitter if their mean is significantly different from score 3 (Neither Agree nor Disagree). The results show that for every one of the variable statements relating to Twitter is significant at a 10 percent level, the mean of the observed scores is statistically far below 3. Most of the p-values are below the level of 1 percent. In the case of Facebook mean scores, except for seven variable statements (highlighted), for all other variables, the mean scores, as in the case of Twitter, are far below the tested score of 3. None of the respondents agreed in the case of Twitter that they would Tweet about any of the statements. In the case of Facebook, in the case of those seven statements, the respondents did not seem to say that they would agree or disagree (no positive tail). Even in the case of Facebook, only two of the seven statements are positive statements about the eCommerce service recovery, and there are no significant scores on the positive side, i.e., they will use the Facebook platform to share their feelings.

Table 3: One-Sample Statistics – t-tests

V/S	Test Value = 3								Test Value = 3							
	FACEBOOK								TWITTER							
	N	Me an	Std Dev	Std Err Mean	t	df	Sig (2-tailed)	p	N	Me an	Std Dev	Std Err Mean	t	df	Sig (2-tailed)	p
1F & 1T	12				-	12	**									
	9	2.64	1.179	0.104	3.510	8	0.001	*	110	2.54	1.209	0.115	-4.022	109	0.000	***
2F & 2T	12				-	12	**									
	9	2.66	1.189	0.105	3.258	8	0.001	*	110	2.55	1.246	0.119	-3.826	109	0.000	***
3F & 3T	12				-	12	**									
	9	2.65	1.164	0.102	3.405	8	0.001	*	110	2.47	1.194	0.114	-4.631	109	0.000	***
4F & 4T	12				-	12	**									
	9	2.47	1.112	0.098	5.386	8	0.000	*	110	2.48	1.139	0.109	-4.771	109	0.000	***
5F & 5T	12				-	12	**									
	9	2.62	1.119	0.099	3.854	8	0.000	*	110	2.51	1.163	0.111	-4.426	109	0.000	***

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6F & 6T	12 9	2.65	1.150	0.101	3.445	- 8	12 8	0.001	** *	110	2.51	1.15 5	0.110	-4.456	10 9	0.000	***
7F & 7T	12 9	2.47	1.097	0.097	5.537	- 8	12 8	0.000	** *	110	2.38	1.12 5	0.107	-5.763	10 9	0.000	***
8F & 8T	12 9	2.70	1.297	0.114	2.648	- 8	12 8	0.009	** *	110	2.55	1.26 8	0.121	-3.759	10 9	0.000	***
9F & 9T	12 9	3.03	1.392	0.123	0.253	- 8	12 8	0.801		110	2.74	1.33 2	0.127	-2.076	10 9	0.040	**
10F & 10T	12 9	2.44	1.110	0.098	5.709	- 8	12 8	0.000	** *	110	2.38	1.19 6	0.114	-5.420	10 9	0.000	***
11F & 11T	12 9	2.47	1.076	0.095	5.648	- 8	12 8	0.000	** *	110	2.46	1.13 1	0.108	-4.975	10 9	0.000	***
12F & 12T	12 9	2.59	1.150	0.101	4.058	- 8	12 8	0.000	** *	110	2.48	1.20 2	0.115	-4.522	10 9	0.000	***
13F & 13T	12 9	2.47	1.039	0.091	5.849	- 8	12 8	0.000	** *	110	2.43	1.11 3	0.106	-5.399	10 9	0.000	***
14F & 14T	12 9	2.60	1.114	0.098	4.031	- 8	12 8	0.000	** *	110	2.55	1.17 0	0.112	-3.994	10 9	0.000	***
15F & 15T	12 9	2.60	1.121	0.099	4.006	- 8	12 8	0.000	** *	110	2.55	1.15 4	0.110	-4.048	10 9	0.000	***
16F & 16T	12 9	2.53	1.119	0.098	4.801	- 8	12 8	0.000	** *	110	2.45	1.15 4	0.110	-5.040	10 9	0.000	***
17F & 17T	12 9	2.75	1.250	0.110	2.254	- 8	12 8	0.026	**	110	2.58	1.25 9	0.120	-3.484	10 9	0.001	***
18F & 18T	12 9	2.90	1.304	0.115	0.878	- 8	12 8	0.382		110	2.75	1.32 2	0.126	-1.948	10 9	0.054	*
19F & 19T	12 9	2.92	1.285	0.113	0.685	- 8	12 8	0.494		110	2.66	1.28 0	0.122	-2.756	10 9	0.007	***
20F & 20T	12 9	2.94	1.304	0.115	0.540	- 8	12 8	0.590		110	2.67	1.24 2	0.118	-2.763	10 9	0.007	***
21F & 21T	12 9	2.85	1.281	0.113	1.305	- 8	12 8	0.194		110	2.70	1.30 3	0.124	-2.415	10 9	0.017	**
22F & 22T	12 9	2.69	1.171	0.103	3.007	- 8	12 8	0.003	** *	110	2.51	1.19 4	0.114	-4.311	10 9	0.000	***
23F & 23T	12 9	2.70	1.101	0.097	3.118	- 8	12 8	0.002	** *	110	2.47	1.09 8	0.105	-5.036	10 9	0.000	***
24F & 24T	12 9	2.59	1.065	0.094	4.381	- 8	12 8	0.000	** *	110	2.43	1.08 8	0.104	-5.523	10 9	0.000	***
25F & 25T	12 9	2.86	1.261	0.111	1.257	- 8	12 8	0.211		110	2.64	1.29 0	0.123	-2.956	10 9	0.004	***
26F & 26T	12 9	2.35	1.073	0.094	6.894	- 8	12 8	0.000	** *	110	2.26	1.09 8	0.105	-7.035	10 9	0.000	***
27F & 27T	12 9	2.65	1.190	0.105	3.329	- 8	12 8	0.001	** *	110	2.41	1.12 8	0.108	-5.496	10 9	0.000	***
28F & 28T	12 9	2.91	1.265	0.111	0.835	- 8	12 8	0.405		110	2.65	1.21 6	0.116	-3.058	10 9	0.003	***
Strongly DISAGREE	1																
DISAGREE	2																
Neither agree nor disagree	3																
AGREE	4																
Strongly AGREE	5																
Not Applicable	6																

The authors then focused on the differences in the use of males versus females in their use of social media in making feelings known about the eCommerce service recovery. In Table 4, we show the usage of Facebook in making feelings known. In 20 of the 28 variables for both males and females' cases, the means significantly differed from 3 (neither agree nor disagree) in the one-sample test. As in the above cases, all means are below (the neutral level), and many (15 for males and 12 for females) are below $p < 0.001$ level, indicating that males may tend to agree (engage) commenting through Facebook more than females.

Table 4: Paired Samples T-Test

PAIRED SAMPLES T-TEST								
(V/S) Variable/ Statements	N	Facebook	Twitter	Paired Mean Difference	Std. Error Mean	Correlation	Corr. Sig.	Paired Differ. Sig.
5F & 5T	123	2.58	2.55	0.030	0.032	0.8	0.000	0.065*
9F & 9T	120	2.93	2.78	0.142	0.067	0.86	0.000	0.037**
19F & 19T	120	2.83	2.63	0.200	0.074	0.79	0.000	0.008***
23F & 23T	120	2.66	2.52	0.142	0.048	0.89	0.000	0.004***
24F & 24T	118	2.56	2.43	0.127	0.050	0.88	0.000	0.013**
28F & 28T	119	2.79	2.66	0.126	0.061	0.86	0.000	0.043**
Facebook						Twitter		
5 - 31 records with 4 or 5 (25%)			1-Strongly DISAGREE			Significance level	23 records with 4 or 5 (19%)	
9 - 63 records with 4 or 5 (53%)			2-DISAGREE			* p<=0.10	41 records with 4 or 5 (34%)	
19 - 47 records with 4 or 5 (39%)			3-Neither Agree nor Disagree			** p<=0.05	28 records with 4 or 5 (23%)	
23 - 34 records with 4 or 5 (28%)			4-AGREE			*** p<=0.01	19 records with 4 or 5 (16%)	
24 - 27 records with 4 or 5 (23%)			5-Strongly AGREE				15 records with 4 or 5 (13%)	
28 - 49 records with 4 or 5 (41%)			6-Not Applicable				30 records with 4 or 5 (25%)	

As in the previous cases, a paired sample t-test revealed that males were more likely to use Facebook to express their feelings about eCommerce service recovery than Twitter (mean higher for Facebook than Twitter). In Table 5, we observe that for eight of the ten variables, the mean scores for males for Facebook were significantly different from Twitter scores, while only for four of the ten variables were the means significantly higher for women, and only two were common for males and females.

Table 5: Paired Differences between Facebook & Twitter - Gender

V/S	Facebook – Twitter													
	Gender – Male							Gender - Female						
	Mean	Std. Dev	Std. Err. Mean	df	t	Sig. (2-tailed)		Mean	Std. Dev	Std. Err. Mean	df	t	Sig. (2-tailed)	
1	0.154	0.712	0.088	64	1.742	0.086	*	-0.079	0.725	0.091	62	0.869	0.388	
2	0.138	0.556	0.069	64	2.009	0.049	*	-0.098	0.746	0.096	60	1.029	0.307	
3	0.159	0.700	0.088	62	1.799	0.077	*	-0.065	0.698	0.089	61	0.728	0.470	
4	0.015	0.599	0.074	64	0.207	0.837		-0.183	0.676	0.087	59	2.100	0.040	*
8	0.159	0.723	0.091	62	1.742	0.086	*	0.050	0.811	0.105	59	0.477	0.635	
9	0.164	0.711	0.091	60	1.800	0.077	*	0.121	0.774	0.102	57	1.187	0.240	
19	0.230	0.990	0.127	60	1.811	0.075	*	0.138	0.544	0.071	57	1.929	0.059	*
20	0.049	0.784	0.100	60	0.490	0.626		0.158	0.591	0.078	56	2.016	0.049	*
23	0.167	0.587	0.076	59	2.199	0.032	*	0.102	0.443	0.058	58	1.763	0.083	*
24	0.153	0.551	0.072	58	2.125	0.038	*	0.103	0.552	0.073	57	1.427	0.159	

p<0.01 ***, p<0.05 **, p<0.10 *

1 - Strongly Disagree 2 – DisAgree 3 - Neither Agree nor DisAgree 4 – Agree 5 - Strongly Agree 6- Not Applicable

Conclusions

Social media has been a dominant player in eCommerce. This channel has been gaining importance steadily in most aspects of marketing and communications. Social media's influence in marketing and communications is gaining enough attention to warrant a significant amount of investment of resources in the channel. Both in academia and practice, a large number of studies are conducted to measure and understand the influence of this channel. As discussed above, this study is conducted to perceive its influence on adopting eCommerce service failure recovery strategies. The authors' interest is to find the usage of this channel for communication by customers affected by different eCommerce failure recovery strategies adopted by eCommerce companies.

One can conclude from the discussion in the analysis section that neither Facebook nor Twitter plays a significant role as a preferred channel among customers who want to make their feelings known to influence their social media followers. The reasoning often verbalized is that "*I do not want to be known as a complainant*" and "*that would affect my reputation.*" Another concern that most social media users indicated is that social media is not permanent. It scrolls continuously, and they feel that if they post, only a few people may pay attention before the next scroll takes place, compared to review websites where their posts are permanent. Electronic Commerce companies also promote the reviews posted on their websites. In many cases, companies do not allow visitors to post a comment on the company's social media site, and the option then is to post on the customer's social media site for their followers. Thus, in this study, we have found out that customers are not interested in posting on their social media sites their concerns or feelings about the eCommerce failure recovery strategy used by the vendors.

Discussion and Limitations

Although many research studies discussed above indicated EWOM, NEWOM, and PEWOM influence consumer behavior in eCommerce, in this study, we did not find any evidence that consumers are using Facebook or Twitter channels for their EWOM in the eCommerce service failure recovery process. This is an interesting phenomenon and needs further study considering how these channels are gaining importance in marketing and communications.

Usually, consumers post both positive and negative comments on websites of company sites as well as product sites. Nevertheless, when the eCommerce service delivery fails, the reluctance by customers to make their feelings known is unusual.

The case for social media relevancy in EWOM in eCommerce service recovery is not obvious. This may be due to age, cultural, or socio-economic factors, as the authors have used the convenience of sampling college students. However, more research is needed on social media's role in the eCommerce service recovery process. Researchers need to find the appropriate context in which social media plays a role in EWOM. This research needs to be repeated in different ethnographic and cultural contexts before we can completely rule out its relevance in eCommerce service failure recovery.

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