

Reference:

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**Online engagement and persistent reactions to social causes:
The black-owned business attribute**

Abstract

The persistence of COVID-19 exerts an unprecedented impact on the tourism and hospitality industry and the Black-owned businesses had been hit disproportionately harder than any other racial group. Many platforms (e.g., Airbnb and Yelp) have run a series of campaigns to support Black-owned businesses. Determining whether these campaigns are effective in attracting supports from consumers or just merely promotional is key. Based on the theoretical framework of Henning-Thurau et al. (2004) and Aldous et al. (2019) and data collected from Yelp, this study reveals that higher levels of engagement produce persistent reactions. Specifically, the rating support lasts for one month and then vanishes; the review support increases for three months and then gets reversed; and the verbal support lasts for three months but does not get reversed. The findings of this study contribute to theories of online engagement and provide direct implications for platforms involving social campaigns in business practice.

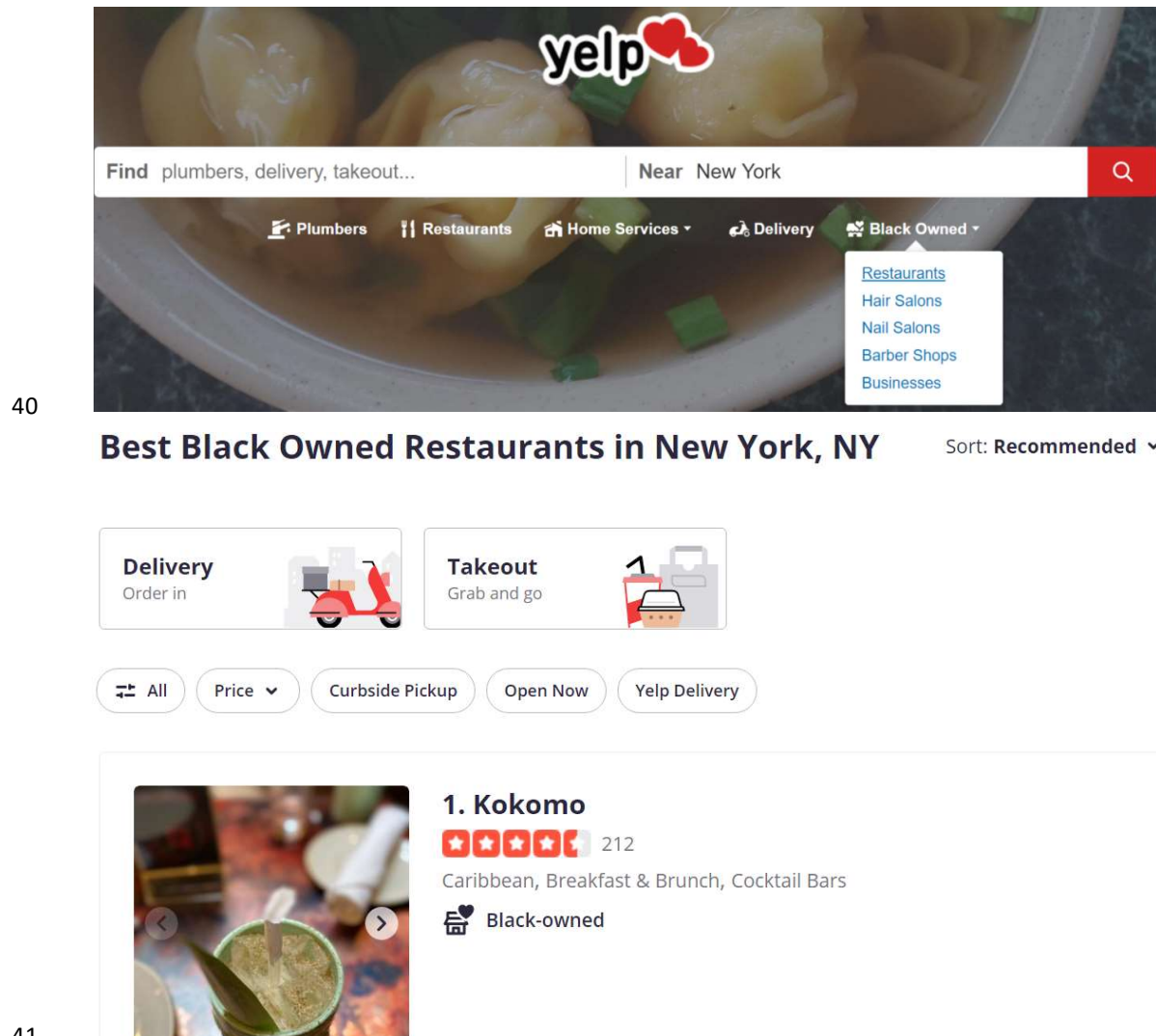
Keywords: social campaigns; online engagement; Yelp; Black-owned businesses

1. Introduction

Recent literature shows that corporate social responsibility may moderate the impact of COVID-19 on the tourism and hospitality industry (Yeon et al., 2021). In their multi-industry analysis, Yeon et al. (2021) found that, for the specific case of restaurants, this moderating effect of corporate social responsibility on the relationship between COVID-19 and restaurant performance is positive. It means that social actions enhance restaurants' resilience. In the present study, we have a different approach, and make the restaurant itself be the social cause.

32 In June 2020, Yelp rolled out a new attribute called the Black-owned business attribute with
33 the purpose of supporting Black restaurant entrepreneurs who had been hit disproportionately
34 harder than any other racial group (Washington Post, 2020; Benjamin & Dillette, 2021). In
35 collaboration with the campaign “My Black Receipt”, Yelp set the goal to encourage
36 consumers to spend “\$5 million at Black-owned businesses from Juneteenth (June 19) through
37 Independence Day (July 4)”. As Yelp claims, with the Black-owned business attribute,
38 restaurants have the opportunity to self-identify as Black-owned restaurants (see Figure 1).

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Figure 1. The Black-owned business attribute

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44 In the framework of this social campaign, we contribute to the literature on user's online
45 engagement by testing whether engaging activities produce persistent and long-lasting
46 reactions. Hennig-Thurau et al. (2004) propose different motives for consumers to engage in
47 online reviews. One of these motives is the consumer's intention to help the firm. In this case,
48 reciprocity takes center stage as the consumer is willing to engage in online content in return
49 of the good service provided by the firm. Accordingly, our research question is: in the
50 framework of a social cause, does a higher level of online engagement lead to more persistent
51 reactions?

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53 Aldous et al. (2019) identify four levels of online engagement: Level 1, which is a private
54 engagement that implies just reading firm's online content; Level 2, that entails showing the
55 individual's preferences; Level 3, in which users express their opinions; and Level 4, through
56 which people spread the content through other online platforms. Stemming from this
57 framework, we adapt and analyze three levels of engagement. First, posting ratings, which
58 corresponds with Aldous et al.'s (2019) level 2; second, writing comments, which would be
59 included in Aldous et al.'s (2019) level 3; and third, writing comments verbalizing the content
60 for which the social action is undertaken. It would correspond with Aldous et al.'s (2019) level
61 3 with an enhanced engagement (level 3+).

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63 **2. Data and methodology**

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65 **2.1 Data collection and summary statistics**

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67 To retrieve as many Black-owned restaurants as possible, we select the 50 most populous
68 metropolitan statistical areas of the United States. As a result (see Table 1), 2979 Black-owned
69 restaurants are detected, 205 of which have no reviews. Among the resulting 2774 Black-owned
70 restaurants, 2343 opened before June 2020 and thus comply with the sample requirement of
71 this study. We then develop a Python-based crawler to collect the historical data for these
72 restaurants—including the rating and text of each review—from December 2019 to November
73 2020. We use six months before and after the launch of Black-owned business attribute.

74 Table 1. Number of Black-owned restaurants among the 50 most populous metropolitan statistical areas.

City	N	City	N	City	N
New York, NY	382	Tampa, FL	35	San Juan, PR	0
Los Angeles, CA	245	Denver, CO	20	San Jose, CA	23
Chicago, IL	143	St. Louis, MO	35	Nashville, TN	29
San Francisco, CA	92	Baltimore, MD	74	Virginia Beach, VA	39
Dallas/Fort Worth, TX	140	Charlotte, NC	51	Providence, RI	7
Houston, TX	162	Orlando, FL	29	Milwaukee, WI	14
Washington, DC	169	San Antonio, TX	31	Jacksonville, FL	19
Miami, FL	73	Portland, OR	36	Oklahoma City, OK	18
Philadelphia, PA	91	Sacramento, CA	30	Raleigh, NC	29
Atlanta, GA	262	Pittsburgh, PA	15	Memphis, TN	33
Phoenix, AZ	54	Las Vegas, NV	43	Richmond, VA	33
Boston, MA	28	Austin, TX	60	New Orleans, LA	77
Riverside, CA	44	Cincinnati, OH	12	Louisville, KY	15
Detroit, MI	58	Kansas City, MO	23	Salt Lake City, UT	3
Seattle, WA	56	Columbus, OH	22	Hartford, CT	7
Minneapolis, MN	19	Indianapolis, IN	21	Buffalo, NY	19
San Diego, CA	39	Cleveland, OH	20	Total	2979

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76 We then calculate three dependent variables to measure the effectiveness of the launch of
77 Black-owned business attribute, which in turn represent different levels of engagement. First,
78 the monthly average of ratings posted on a restaurant (*RevRating*), which represents the rating
79 engagement of consumers after consumption. Second, the monthly number of reviews posted
80 on a restaurant (*RevNum*). Third, the monthly number of reviews that mentioned the term
81 “Black” (*RevBlack*). These two variables can directly measure the explicit support from
82 consumers to Black-owned restaurants and indicate whether the launch of the Black-owned
83 business attribute at Yelp encourages more online engagement on Black-owned restaurants
84 (Rosado-Pinto & Loureiro, 2020). Table 2 reports the summary statistics of these three

variables during the period of six months before and after the launch of Black-owned business attribute at Yelp (Dec 2019 - Nov 2020).

Table 2. Summary statistics.

Variable	N	Mean	S.D.	Min.	Max.
<i>RevRating</i>	19,252	3.911	1.138	1	5
<i>RevNum</i>	27,662	3.200	5.317	0	96
<i>RevBlack</i>	27,662	0.183	0.549	0	10

2.2 Econometric model

We develop the following econometric models to estimate the effect of launching the Black-owned attribute on the different measures of consumer online engagement, which, in a way, are related with the performance of Black-owned restaurants (Kim et al., 2020). As a series of campaigns employed by Yelp is from June 19 2020 to July 4 2020 (less than one month), we use six months before and after the Black-owned business attribute is launched to capture its impact on consumer online engagement. A panel dataset (restaurant \times year-month) is constructed to perform empirical analysis. In Models 1-3, *After* is a dummy variable to denote the launch of Black-owned attribute (1: after; 0: before), μ_i is the restaurant fixed effect to account for the heterogeneity across restaurants and ν_t is the time (year-month) fixed effect to control for time variant factors like the progress of Covid-19, and ε_{it} is the idiosyncratic error term. α is the constant and β is the parameter that captures the effect of rolling out the Black-owned restaurant attribute on each dependent variable.

$$RevRating_{it} = \alpha + \beta * After + \mu_i + \nu_t + \varepsilon_{it} \quad (1)$$

$$RevNum_{it} = \alpha + \beta * After + \mu_i + \nu_t + \varepsilon_{it} \quad (2)$$

$$RevBlack_{it} = \alpha + \beta * After + \mu_i + \nu_t + \varepsilon_{it} \quad (3)$$

3. Results

3.1 Aldous et al. 's (2019) level 2: rating support

Table 3 shows the parameter estimates for the variable *After*. This parameter is significant and positive in column 1, suggesting that the rating support to Black-owned restaurants only lasts for one month. Interestingly, the next months are not significant and become reversed in months 5 and 6. These results suggest that a low-level online engagement only lasts for a short period.

Table 3. Policy effect on rating support to Black-owned business.

Column	(1)	(2)	(3)	(4)	(5)	(6)
Period	[-1, 1]	[-2, 2]	[-3, 3]	[-4, 4]	[-5, 5]	[-6, 6]
Variable	<i>RevRating</i>	<i>RevRating</i>	<i>RevRating</i>	<i>RevRating</i>	<i>RevRating</i>	<i>RevRating</i>
<i>After</i>	0.189*** (0.041)	0.028 (0.040)	-0.043 (0.036)	-0.048 (0.033)	-0.100*** (0.033)	-0.059* (0.035)
Constant	3.845*** (0.028)	3.867*** (0.032)	3.899*** (0.027)	3.901*** (0.023)	3.978*** (0.023)	3.978*** (0.024)
Restaurant FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
N	3,148	6,073	9,354	12,702	16,077	19,252
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
R ²	0.760	0.585	0.492	0.447	0.409	0.382

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

3.2 Aldous et al. 's (2019) level 3: review support

Columns 1-3 in Table 4 show positive and significant coefficients for the variable *After*, thereby indicating that launching the Black-owned restaurant attribute exerts a positive effect on

encouraging consumers to post reviews on Black-owned restaurants. As the average monthly number of reviews for each restaurant is about 3.2 (see Table 2), a magnitude of 2.4 in columns 1-2 suggests a 75% (2.4/3.2) increase of reviews posted on Black-owned restaurants after the launch of the Black-owned attribute in the first two months. This positive effect lasts for three months and reversed after the third month. This result implies that the launch of Black-owned attribute functions in the short term but losses efficacy in the long term.

Table 4. Policy effect on review support to Black-owned business.

Column	(1)	(2)	(3)	(4)	(5)	(6)
Period	[-1, 1]	[-2, 2]	[-3, 3]	[-4, 4]	[-5, 5]	[-6, 6]
Variable	<i>RevNum</i>	<i>RevNum</i>	<i>RevNum</i>	<i>RevNum</i>	<i>RevNum</i>	<i>RevNum</i>
<i>After</i>	2.418*** (0.101)	2.427*** (0.087)	0.785*** (0.086)	-1.061*** (0.115)	-0.871*** (0.105)	-0.945*** (0.091)
Constant	1.970*** (0.071)	1.459*** (0.063)	2.782*** (0.064)	4.142*** (0.102)	4.012*** (0.090)	3.581*** (0.077)
Restaurant FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4,686	9,339	13,975	18,575	23,140	27,662
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
R ²	0.790	0.718	0.696	0.663	0.656	0.656

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

3.3 Aldous et al. 's (2019) level 3+: verbal support

As Table 5 reports, the coefficient for the variable *After* is also significant and positive in columns 1-3, indicating that the number of reviews that mentioned the term “Black” increases after the launch of the Black-owned attribute. Also, this significant effect disappears after the third month. Nevertheless, in this case, the effect is not reversed.

Table 5. Policy effect on verbal support to black-owned business.

Column	(1)	(2)	(3)	(4)	(5)	(6)
Period	[-1, 1]	[-2, 2]	[-3, 3]	[-4, 4]	[-5, 5]	[-6, 6]
Variable	<i>RevBlack</i>	<i>RevBlack</i>	<i>RevBlack</i>	<i>RevBlack</i>	<i>RevBlack</i>	<i>RevBlack</i>
<i>After</i>	0.374***	0.264***	0.101***	0.007	0.020	0.005
	(0.020)	(0.015)	(0.014)	(0.014)	(0.013)	(0.012)
Constant	0.079***	0.052***	0.123***	0.180***	0.140***	0.138***
	(0.014)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)
Restaurant FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-Month FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4,686	9,339	13,975	18,575	23,140	27,662
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000
R ²	0.582	0.422	0.351	0.318	0.299	0.288

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Consequently, the results obtained for the three levels of engagement show that the rating support (level 2 in Aldous et al.'s (2019) categorization) lasts for one month, then vanishes and gets reversed; the review support (writing comments) (level 3) increases for three months after the new attribute and then gets reversed; and the verbal support (writing comments verbalizing the content for which the social action is undertaken) (level 3+) lasts for three months too, but it does not get reversed afterwards. Therefore, the above findings indicate that higher levels of engagement produce persistent reactions. Even if social, the promotional character of the campaign—which seeks to increase sales in the short period of time comprised between June 19 and July 4—explains that the effect does not go beyond the third month.

4. Conclusion

While the literature has focused on the effect of corporate social responsibility activities as a moderating effect of the impact of COVID-19 on the tourism and hospitality industry (Yeon et al., 2021), we turn the focus of our attention on the business itself as the social cause. Using the launching of the Black-owned business attribute by Yelp, we test whether the level of online engagement determines the persistence of its reaction. The empirical application shows that, first, the campaign, even if social, has the character of a promotional activity with the concomitant short-time effects; and second, the more engaging the activity is (from just rating the service, to writing a review and writing a review with an emphasis on the social content), the more persistent the reaction is. In the theoretical framework of Henning-Thurau et al. (2004) and Aldous et al. (2019), this study contributes to the theory of online engagement by introducing a social element and showing that reviews that include a qualitative component (enhanced review content) have a more persistent reaction than those that do not. Still, the reaction does not seem to last longer than three months; thus, clear managerial implications for businesses are, first, to keep track of the evolution of the reaction corresponding to their businesses, and second, implement their own communication strategies by way of reminders of the existence of a social promotional campaign. Also, for public entities in charge of managing tourism destinations, learning that the persistence of a reaction is temporary, may help distinguish strategies for first-time visitors and repeat visitors. Additionally, the empirical results also offer direct implications for platforms involving social campaigns in business practice. As higher (lower) levels of engagement produce persistent (transient) reactions, platforms with promotional purposes can emphasize the lower levels of consumer online engagement when making policies regarding social campaigns; platforms with long-term goals should focus on the higher levels of consumer online engagement when making policies regarding social campaigns.

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