



## Research Paper

## Tipping policy effects on customer satisfaction: An informative failure to replicate

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## ARTICLE INFO

## Keywords:

Tipping policy  
Customer satisfaction  
Cruise industry

## ABSTRACT

Analysis of online reviews indicates that Royal Caribbean's abandonment of tipping on March 1, 2013 had no reliable effect on its customers' ratings of either the overall cruise experience or the cruise service/staff. This finding stands in opposition to previous studies which reported that customer satisfaction and service ratings fell after organizations abandoned voluntary tipping policies in contexts where tipping is normative. Since tipping is no longer common in the cruise industry, the failure to replicate suggests that earlier effects were probably caused by people's subjective preference for the tipping policies they were used to in those contexts rather than by tipping's actual effects on service delivery.

## 1. Introduction

Tourists from around the world often face expectations that they will leave voluntary payments of money (called "tips," "propinas," and "pourboire" among other things) to the workers who serve them. Among those receiving such tips are airport porters, baristas, bartenders, bellmen, concierges, doormen, cab drivers, hotel maids, parking valets, street musicians, tour guides, and waiters. Although tipping is normative behavior in many contexts, firms do not have to passively accept the tipping norms of the locales in which they operate. Firms can adopt no-tipping policies in countries where tipping is otherwise common and expected, as many all-inclusive resorts, hotels, and restaurants have done. Firms can also encourage tipping in contexts where it is rare, such as Frontier Airlines does with inclusion of a tipping option on its onboard digital billing tablets.

In an effort to inform firms' decisions about whether or not to adopt tipping vs no-tipping policies, researchers have studied the consequences of such policies, finding that customer satisfaction and service ratings are higher under tipping than under no-tipping systems (Kwortnik et al., 2009; Lynn, 2018; Lynn and Brewster, 2018; Lynn and Kwortnik, 2015). However, these results were observed in contexts where tipping was common – i.e., among restaurants in the United States and cruise lines near the turn of the century. It is not clear if tipping policies would have similar effects on customer satisfaction and service ratings when tipping is rare and counter-normative. If the positive effects of pro-tipping policies are due to tipping's role as a

performance contingent incentive/reward that attracts and retains better workers and motivates them to do a good job, then those effects should generalize to contexts where tipping is rare, because tipping can serve as an incentive/reward for good service regardless of how common pro-tipping policies are. However, if the positive effects of pro-tipping policies are due to consumers' subjective preference for tipping over its alternatives, then those effects may not generalize to contexts where tipping is rare. People tend to like what is common or familiar (Rindfleisch and Inman, 1998; Ravis and Sheeran, 2003), so preference for tipping over no-tipping may be diminished or even reversed in contexts where no-tipping is more common than tipping.

This study tests for the first time the effects of tipping vs no-tipping policies on customer satisfaction and service ratings in a context where tipping is rare – the leisure cruise industry from 2012 to 2014. Tipping used to be common in cruising, but that started to change in 2000 when some cruise lines began adding automatic service charges to passengers' bills instead. By 2013, Royal Caribbean International was the last major cruise line to have a voluntary tipping policy, so its abandonment of that policy on March 1, 2013 occurred in a context where cruise tipping was relatively rare (Sloan, 2013). We take advantage of this situation to perform a difference-in-difference analysis testing the effects on its online ratings of Royal Caribbean's replacement of tipping with automatic service charges.

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## 2. Method

Cruiseline.com provided us with data from 7177 online reviews of cruises aboard Celebrity, Holland America, Norwegian, and Royal Caribbean ships that sailed from March 1, 2012 to May 1, 2014. The data included the following information:

- Cruise line (dummy coded),
- Ship name (61 ships; dummy coded),
- Sail date (recoded as number of days after March 1, 2012; also used to create a binomial variable “After 3/1/13”: yes = 1, no = 0),
- Length of cruise (in days),
- Reviewer experience (“1 cruise (first),” “2-3 cruises,” “4-6 cruises,” or “7+ cruises,” coded as 1, 2.5, 5 and 7 respectively),
- Travel type (couple, family with older children, family with young children, large group, singles/friends, missing; dummy coded),
- Room type (balcony, inside, ocean view, suite, missing; dummy coded)
- Cruise location (recoded as North America: y = 1, n = 0), and
- Ratings of overall experience and service/staff on 5- and 3-point scales respectively.

## 3. Results

Descriptive statistics are presented in Table 1. Difference-in-difference regression analyses examining the predictors of overall satisfaction and service/staff ratings are presented in Table 2. Note that the main effect of cruise line is captured by the ship dummies in these analyses. The non-significant Royal Caribbean X AFTER interactions in Table 2, Columns 1 and 4 mean that changes from before to after March 1, 2013 in Royal Caribbean’s online ratings were not reliably different from those of the other cruise lines that did not change tipping policies over the study period. In other words, Royal Caribbean’s abandonment of tipping had no reliable effect on customer satisfaction. Supplemental analyses indicated that this Royal Caribbean X AFTER interaction did not reliably vary with the experience level of the cruise patron (see Table 2, Columns 2 and 5) and that it remained non-significant even after controlling for other variables (see Table 2, Columns 3 and 6).

**Table 1**  
Descriptive statistics for the variables in this study.

	N	Minimum	Maximum	Mean	Std. Deviation
Overall Cruise Rating	7177	1.00	5.00	3.7362	1.10611
Service/Staff Rating	6997	1.00	3.00	2.7528	.53257
ON or AFTER 3-1-13 (y = 1 n = 0)	7177	.00	1.00	.5519	.49733
Royal Caribbean (y = 1 n = 0)	7177	.00	1.00	.4930	.49999
Celebrity (y = 1 n = 0)	7177	.00	1.00	.1290	.33525
Holland America (y = 1 n = 0)	7177	.00	1.00	.0580	.23369
Norwegian (y = 1 n = 0)	7177	.00	1.00	.3201	.46653
Sail Date (days after 3/1/12)	7177	0	791	395.71	237.629
Cruise Length (days)	5868	1	33	7.08	2.810
Reviewer Experience (# cruises)	6996	1.00	7.00	4.4936	2.28474
Couple (y = 1 n = 0)	7177	.00	1.00	.5408	.49837
w/ Older Kids (y = 1 n = 0)	7177	.00	1.00	.1363	.34310
w/ Young Kids (y = 1 n = 0)	7177	.00	1.00	.0833	.27639
Large Group (y = 1 n = 0)	7177	.00	1.00	.0791	.26998
Single/Friends (y = 1 n = 0)	7177	.00	1.00	.1388	.34574
Other Traveler Type (y = 1 n = 0)	7177	.00	1.00	.0217	.14583
Balcony (y = 1 n = 0)	7177	.00	1.00	.4163	.49298
Inside (y = 1 n = 0)	7177	.00	1.00	.2737	.44586
Ocean view (y = 1 n = 0)	7177	.00	1.00	.2228	.41615
Suite (y = 1 n = 0)	7177	.00	1.00	.0702	.25554
Other Room Type (y = 1 n = 0)	7177	.00	1.00	.0170	.12928
North American Destination (y = 1 n = 0)	7177	.00	1.00	.8494	.35770
Valid N (listwise)	5633				

## 4. Conclusions

The null results of this study stand in opposition to previous findings that customer satisfaction and service ratings fell after numerous U.S. restaurants and Carnival Cruise Lines abandoned voluntary tipping. The results could be Type 2 errors, but the findings were not even directionally consistent with previous research; Royal Caribbean’s online ratings increased slightly more (not less) than did those of the other cruise lines. Furthermore, the large sample size means that the effect size estimates had narrow confidence intervals; there is only a 5 percent chance that the true effect of abandoning tipping was to reduce those relative ratings by .08 or more out of 5 points and .03 or more out of 3 points respectively.

The null results could also be due to some confound that suppressed the true effects of tip policy. Difference-in-difference analysis controls for all temporally stable variables that might confound cross-sectional relationships, but leaves open the potential for unobserved changes in other aspects of Royal Caribbean’s cruise offerings (and not those of other cruise lines) to co-vary with the change in tip policy and, thus, confound the reported effects. Fortunately, an in-depth review of the industry news magazine *Travel Weekly* for six-month periods before and after Royal Caribbean’s decision to switch from voluntary tipping to services charges revealed no notable product innovations or service changes that might have affected customer ratings. Thus, our data provide reasonably strong evidence that the abandonment of tipping does not have meaningful negative effects on customer satisfaction and service ratings in the context studied.

The failure to replicate prior research in a context where tipping is rare counters previously observed negative effects of abandoning tipping in contexts where it is common, suggesting that those previously observed effects have more to do with adopting counter-normative policies than with abandoning tipping per-se. In other words, the negative effects of abandoning tipping observed previously were probably caused by people’s subjective preference for the pro-tipping policies they were used to rather than by tipping’s actual effects on service delivery. This conclusion is consistent with research finding that tip amounts are only weakly related to service levels in one of those previously studied contexts (U.S. restaurants) (Lynn and McCall, 2000), because tipping should provide only a weak incentive to deliver good service if tips are not contingent on service. This conclusion also helps explain why tipping has remained rare in many countries around the

**Table 2**  
Coefficients (and robust standard errors clustered within ship) from regression analyses predicting reviewer ratings of overall cruise experience and of cruise service/staff.

	Overall Rating	Overall Rating	Overall Rating	Service/Staff Rating	Service/Staff Rating	Service/Staff Rating
Constant	included	included	included	included	Included	included
Ship Dummies	included	included	included	included	included	included
On or After 3/1/13 (y = 1 n = 0)	-.01 (.04)	-.03 (.08)	.31*** (.08)	-.01 (.02)	-.03 (.05)	-.05 (.03)
Sail Date (days after 3/1/12)			-.001** (.0001)			-.0001* (.00006)
Cruise Length (days)			-.01 (.01)			.006 (.005)
Reviewer Experience (RE; # cruises)		-.09*** (.01)	-.08*** (.01)		-.04*** (.01)	-.03*** (.003)
Couple (y = 1 n = 0)			.21 (.17)			.01 (.09)
w/ Older Kids (y = 1 n = 0)			.14 (.18)			-.01 (.09)
w/ Young Kids (y = 1 n = 0)			.04 (.18)			-.10 (.09)
Large Group (y = 1 n = 0)			.05 (.18)			-.07 (.10)
Single/Friends (y = 1 n = 0)			.16 (.17)			.01 (.09)
Balcony (y = 1 n = 0)			.68* (.29)			-.03 (.11)
Inside (y = 1 n = 0)			.71* (.29)			-.04 (.11)
Ocean view (y = 1 n = 0)			.77* (.30)			-.01 (.11)
Suite (y = 1 n = 0)			.78* (.30)			-.01 (.11)
N. America (y = 1 n = 0)			.01 (.06)			.02 (.03)
Royal Caribbean x After	.04 (.06)	.11 (.15)	.02 (.06)	.01 (.02)	.06 (.06)	.01 (.02)
Reviewer Experience x AFTER		.01 (.02)			.01 (.01)	
Reviewer Experience x Royal Caribbean		.04 (.02)			.02* (.01)	
Reviewer Experience x Royal Caribbean x AFTER		-.02 (.03)			-.01 (.01)	
R <sup>2</sup>	.07	.09	.11	.04	.05	.06
Numbers of Observations/Clusters	7,177/61	6,996/61	5,776/61	6,997/61	6,825/61	5,633/61

\* p < .05.  
\*\* p < .01.  
\*\*\* p < .001.

world. If tipping’s role as an incentive/reward increases service and customer satisfaction, then competitive pressures should have made it spread even to countries where it is uncommon. However, if the previously observed, positive effects of tipping on customers’ satisfaction and service ratings are due to subjective preferences for pro- vs anti-tipping policies that are fostered by the former’s commonness, then there is little reason for non-tipping countries to adopt this practice.

The normative-based explanation for differences between the current and previous findings raises two questions. First, why did the current study not find a reliable positive effect of abandoning tipping? Eliminating tipping in this study context represented movement toward the normative, which might be expected to increase customer satisfaction. Second, why was the expected positive effect of abandoning tipping not stronger among frequent cruise patrons? Frequent cruisers should be more familiar with the industry tipping norms, so might be expected to react more strongly to counter-normative policies, which would result in a three-way interaction between Royal Caribbean, AFTER, and reviewer experience.

The most plausible answer to these reviewer-raised-questions is that the voluntary nature of tipping gives rise to an asymmetry in consumers’ reactions to counter-normative policies opposing vs supporting tipping. Counter-normative elimination of tipping involves raising prices or adding automatic service charges, which consumers find

objectionable when other firms offer lower prices and the option of tipping or not (see Lynn, 2017). This probably explains previous negative effects of abandoning tipping. However, numerous pricing practices are less objectionable when they are common and familiar (Kimes and Wirtz, 2003; Wirtz and Kimes, 2007) and that may be why Royal Caribbean’s replacement of tipping with automatic service charges did not decrease customer satisfaction. Furthermore, counter-normative pro-tipping policies are probably acceptable because tipping is voluntary. If so, Royal Caribbean’s initial counter-normative pro-tipping policy was not objectionable to consumers and that is why moving away from it toward a more normative no-tipping policy did not increase customer satisfaction. Thus, the failure to find a reliable tipping policy effect (Royal Caribbean x AFTER interaction) may be due to the acceptability of counter-normative policies that are voluntary, and the failure to find a moderation of this effect by reviewer experience (Royal Caribbean x AFTER x Reviewer Experience interaction) may be due to the absence of any policy effect to be moderated. This explanation is consistent with research on both consumers’ attitudes toward tipping and its alternatives (see Lynn, 2017) and consumers’ perceptions of pricing fairness (Wirtz and Kimes, 2007), but is deserving of further investigation and testing.

On a more general level, the failure to replicate previously observed negative effects of abandoning tipping on customers’ overall

satisfaction and service ratings highlights the need to study this phenomenon in more diverse contexts. The vast majority of research on tipping policy effects has studied nations and contexts where tipping is common and expected (for a review, see Lynn, 2017) and those effects may differ across nations and service contexts (see Lieven et al., 2019), so existing findings may not be generalizable. Better understanding these potential cross-cultural and contextual differences is an area ripe for study with implications for tourism pricing, marketing, and policy.

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