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# To tip or not to tip? Explaining tipping behavior in restaurants with service-inclusive pricing

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# ABSTRACT

Tipping behavior is a vital way for waiting staff to enhance their wages, and for managers to monitor guest satisfaction. Despite its importance, there is not yet an established consensus on reasons why people tip. Our lack of understanding about tipping behavior is exacerbated by a strong reliance on studies conducted in countries that have a system of voluntary tipping (e.g., the United States). The study aims therefore at expanding our understanding of tipping behavior beyond voluntary tipping countries and more specifically explaining tipping behavior under service-inclusive pricing. Data obtained from 1458 guests in five European countries show that income and payment method are the strongest predictors of customers' decision to tip, whereas bill size is the most robust predictor of tip amount. Results advance knowledge by suggesting that social norm theory plays a major role to understand tipping behavior in service-inclusive pricing.

# 1. Introduction

In the hospitality industry, tipping is often perceived as an essential source of income to compensate for employees' low wages (Lynn, 1996). Hence, it has been the focus of much scholarly attention, particularly in the United States (Banks et al., 2018), where more than two million servers rely on tips (National Economic Council, 2014). Tipping in the U. S. has an economic value of \$50 billion per year (Banks et al., 2018). It is a phenomenon which is important to consider because it has a role in employees' turnover (Lynn, 2023) and depends on employee performance (Zeigler-Hill et al., 2015).

Among many explanations for tipping, equity theory is probably the explanation which has been examined the most often. When surveyed, customers frequently mention that they tip to reward good service (Becker et al., 2012; Lynn, 2009). Numerous studies conducted in voluntary tipping countries have confirmed that service quality is positively related to tip size (see Banks et al., 2018)—although the magnitude of this correlation remains very weak, accounting for only 1–5% of the variance in tip size. Three other theories have therefore

been advanced to explain tipping behavior. Altruistic act theory suggests that customers tip restaurant employees to help them. Impression management theory considers that customers tip to appear in a positive light in front of others. Social norm theory considers that customers tip to follow social norms and conventions.

To date, knowledge on the antecedents of tipping behavior has mostly been gained from voluntary tipping environments. Few studies have been conducted on the predictors of tipping behavior in service charge (Chung and Heung, 2007; Dewald, 2003; Kakkar and Li, 2022) and service-inclusive pricing contexts (e.g., Fernandez et al., 2016, 2020; Rønhovde, 2012; Thrane and Haugom, 2020). This is problematic for the following reasons. Voluntary tipping differs from service-inclusive pricing environments on several aspects. First, under voluntary tipping system, only the price for the food is shown on the bill. In contrast, under service-inclusive pricing, the prices for both food and service are bundled together. Second, under voluntary tipping customers are expected to give a tip equivalent to 15–18% of the bill, even if they are dissatisfied with the service received (Conlin et al., 2003; Morris, 2018). In contrast, tips are not expected under service-inclusive

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pricing, even if they are still appreciated and usual (Gössling et al., 2021). Therefore, customers are advised to round up the bill or leave a gratuity only if they have been satisfied by the service (Travelex, 2008). Third, voluntary tipping is expected to encourage employees to deliver high-quality service to obtain larger tips. In contrast, service-inclusive pricing reduces pressure on employees because their wages do not depend on the quality of service provided (for a complete discussion of the differences between voluntary tipping and service-inclusive pricing, see Lynn and Withiam, 2008). Considering these differences, we can imagine for instance the following: On the one hand, the effect of service quality on tipping behavior might be stronger under service-inclusive pricing than under voluntary tipping because customers are not required to give a tip equivalent to 15-18% of the bill. On the other hand, customers might be less sensitive to service quality under service-inclusive pricing because the service price is already included in the bill. In that case, there would be no relationship between service quality and tipping behavior.

The present study aims at identifying predictors of tipping behavior under service-inclusive pricing contexts. This study contributes to our understanding of tipping behavior in the following ways. First, many studies have examined the role of service quality on tipping behavior, but the role of other variables has been examined in a less systematic manner. For instance, two meta-analyses on the antecedents of tipping behavior (Banks et al., 2018; Lynn and McCall, 2000) have only considered a subset of the variables included in the present study. A second contribution comes from considering tipping behavior in two ways. On the one hand, decision to tip is defined as whether customers leave a voluntary tip or not. On the other hand, tip amount is referred as the sum of money left as a tip. Most studies conducted in voluntary tipping contexts have only focused on tip amount but not on customers' decision to tip. This study contributes to the growing amount of research showing that decision to tip should be distinguished from tip amount (see also Saunders and Lynn, 2010; Schwer and Daneshvary, 2000). The third (and most important) contribution results from studying tipping behavior outside of a voluntary tipping context and more precisely in a service-inclusive pricing context. As described in the previous section, structural differences between voluntary tipping and service-inclusive pricing are very likely to influence antecedents of tipping.

In the following literature review, four theories explaining tipping behavior are considered: 1) equity theory; 2) altruistic act theory; 3) impression management theory; and 4) social norm theory, as well as the predictors expected to correlate with tipping behavior for each one.

#### 2. Literature review

#### 2.1. Equity theory

According to equity theory (Adams, 1965), individuals are motivated to treat others equitably. For Lynn and McCall (2000, p. 204), "people are socialized to feel anxiety or distress when their relationships with others are inequitable. A relationship is inequitable when the participants' outcomes from the relationship are disproportionate to their respective inputs to the relationship." As service represents the input and the tips represent the outcome of the customer-service provider relationship, better service leads to larger tips. On the other hand, if customers feel they have not been properly served, they will decide not to tip, or to tip less. Past studies have provided support for this theory when showing a positive relationship between service quality and tip size (Banks et al., 2018; Lynn and McCall, 2000). Assuming this theory is valid across tipping systems, customers who are more satisfied with service are more likely to tip, even in service-inclusive pricing environments.

**H1.** : Service quality is positively related to tipping behavior. Customers who are more satisfied with service are more likely to tip and provide larger tip amounts than those who are less satisfied.

# 2.2. Tipping as an altruistic act

According to the altruistic act theory, customers tip servers for generous reasons and out of self-interest (Lynn, 2015). Among many other reasons, customers also tip to help servers earn a livable income (Holloway, 1985) or because they empathize with their working conditions. To support this, Lynn (1996) observed that it was the second-most frequently cited reason by customers for tipping (after "rewarding good service"). If tipping results from altruism, certain variables are expected to influence tipping behavior. Individuals are more eager to help others when they share similarities. For instance, they are more likely to respond favorably to a request when they share the same birthday (Burger et al., 2004), or to donate a larger amount of money when approached by someone who has the same first name (Munz et al., 2020). As a consequence, customers sharing similarities with servers are expected to be more likely to tip. Van Vaerenbergh and Holmqvist (2013) showed that European customers are more willing to tip a server who speaks the same language. Van Baaren et al. (2004) demonstrated that customers are more likely to tip if the server used the exact words uttered by the customer. As another example, Lynn and Mynier (1993) showed that employees received larger tips when they mimicked customers' posture while taking the order than when they stood up straight. Finally, customers working in foodservice tend to tip more generously than those without foodservice experience (Lynn et al., 2008; Parrett, 2011). As having worked in the same industry increases the willingness to help, customers with foodservice experience are expected to tip more.

**H2.** : Customers with professional experience in foodservice are more likely to tip and to provide larger tip amounts than customers without foodservice experience.

Individuals tend to be more generous with people they already know, due to what is referred to as the "mere exposure effect" (Zajonc, 1968). Having already met the staff, regular customers might like them more and be more likely to tip. Past studies have demonstrated a positive effect of patronage frequency on tipping behavior. Customers who had already visited the restaurant gave larger tips than those who had not (Lynn and Grassman, 1990; Lynn and McCall, 2000). If individuals are more generous with people they know, repeat customers will be more likely to tip than first-time customers.

**H3.** : Repeat customers are more likely to tip and to provide larger tip amounts than customers who have never eaten in the restaurant before.

# 2.3. Tipping as an impression management tactic

Customers might tip to impress and demonstrate their status in front of other customers and servers (Kakkar and Li, 2022; Lynn, 2015). Despite few customers claiming they tip for this reason in voluntary tipping environments (Lynn, 2009), studies conducted in service charge environments (e.g., Hong Kong) suggest this factor to be an important motive for tipping. If impression management matters in service-inclusive pricing environments, variables such as income, gender, and those increasing the visibility of the tip, should be related to tipping behavior. For instance, if customers tip to impress others, they will be more likely to tip and tip higher amounts, the higher number of guests, when they pay with cash, or when the bill is not split (so they pay for others at their table). For instance, in Hong Kong, Kakkar and Li (2022) showed that customers were more likely to tip when paying with cash than when paying electronically (see also Dewald, 2003) and that males were more likely to tip than females. Dewald (2003) also demonstrated that customer income and age were significant predictors of tipping behavior in Hong Kong. All in all, these results support the hypothesis that customers tip to make favorable impressions on others.

**H4.** : Customer income is positively related to tipping behavior. Customers who earn a higher income are more likely to tip and to provide larger tip

amounts than customers who earn a lower income.

**H5.** : Customer gender is related to tipping behavior. Males are more likely to tip and to provide larger tip amounts than females.

**H6.** : Payment method is related to tipping behavior. Customers who pay with cash are more likely to tip and to provide larger tip amounts than customers who pay electronically.

Even if customers tip to impress others in service charge environments, we should remember that this motive does not play an important role in voluntary tipping environments. For instance, income is unrelated to tip amount in voluntary tipping environments (Lynn et al., 2012; Mok and Hansen, 1999). Moreover, in voluntary tipping environments, customers who pay electronically tend to be more generous and give larger tips than customers who pay with cash (Garrity and Degelman, 1990; Lynn and Mynier, 1993). When customers pay electronically (credit card or debit card), they are more detached from the actual monetary value of the bill and may be more inclined to tip.

# 2.4. Tipping as a normative behavior

Social norms represent dominant behaviors, attitudes, emotions, or codes of conduct in a group. Individuals are motivated to follow social norms because they think it is the right thing to do but also by fear of others' disapproval if they do not follow these norms. In voluntary tipping environments, customers are expected to leave 15–20% of the bill size as a tip. In support of the social norm theory of tipping, bill size has been identified as the strongest predictor of tip amount, accounting for around 50% of the variance in tip size (Lynn and Grassman, 1990). Therefore, customers tip a larger amount of money when bill size is more expensive and hence follow the norm of providing 15% of the bill as a tip.

**H7.** : Bill size is positively related to tipping behavior. Customers paying an expensive bill are more likely to tip and to provide larger tip amounts than those paying a cheaper bill.

If customers tip to follow social norms, dining-out frequency should be related positively to tipping behavior. Customers must be aware of social norms associated with gratuity before conforming to them (Seiter et al., 2011). Interestingly, individuals who frequently dine out are more likely to possess this knowledge, given their exposure to restaurant environments. Consequently, we anticipate a significant correlation between dining-out frequency and tipping behavior (Conlin et al., 2003).

**H8.** : Dining-out frequency is positively related to tipping behavior. Customers who dine out more frequently are more likely to tip and to provide larger tip amounts than those who dine out less frequently.

# 2.5. Other predictors of tipping behavior

In addition to the variables above, the tipping literature has examined other predictors of tipping behavior. The following variables are also frequently examined in the tipping literature: food quality, party size, and customer age. Food quality is positively related to tip size, but the relationship is of a lower magnitude than the relationship between service quality and tip size (Banks et al., 2018). Party size is negatively related to tip size (Banks et al., 2018). Large tables tend to provide tips of a lower magnitude than smaller tables. Older customers provide lower tip amounts than younger ones (Conlin et al., 2003; Parrett, 2011).

In the literature review, various reasons for tipping were described: equity (and willingness to reciprocate good service), altruistic reasons (and help servers), impression management motives, and the willingness to follow social norms. We have reviewed predictors associated with tipping behavior in light of each theory. However, most of our knowledge on the predictors of tipping behavior comes from voluntary tipping environments (and most of the time from the U.S.), with very few studies conducted in service charge and service-inclusive pricing environments. Our study aims to investigate the predictors of tipping behavior in service-inclusive pricing environments. Our study presents the following characteristics: 1) It is conducted in an under-studied tipping environment, which is necessary to establish the generalizability of previous findings; 2) It is conducted simultaneously in many countries, which reinforces the robustness of findings; 3) It controls for several control variables that have been omitted in some research (Chung and Heung, 2007; Kakkar et Li, 2022; Thrane and Haugom, 2020).

# 3. Method

# 3.1. Procedure and participants

Data were collected in June 2018 in five medium-sized European cities in Germany, the Netherlands, Norway, Sweden, and Spain. All restaurants in the chosen countries operate under service-inclusive pricing, yet under unique national cultures, which ensures greater diversity. Over the course of two weeks, research assistants approached customers after they had finished their evening meal in a restaurant in the city center and introduced themselves as working on behalf of their university in a project focused on restaurant dining. Customers were asked to participate in the study and informed about anonymity and the time needed to complete the questionnaire. Questionnaires were administered in the official language of the respective cities. Interviews focused on the person paying the bill. All diners who paid a share of the bill were invited to participate in the study. The total sample size is 1458 guests (298 guests in Germany, 293 in the Netherlands, 293 in Norway, 280 in Sweden, and 294 in Spain) after removing two observations from Germany, six from the Netherlands, six from Spain, seven from Norway, and five from Sweden because the bill size was three standard deviations above the mean bill size in the respective country. Some of these data have been presented in a previous study focusing on country differences in tipping patterns (Gössling et al., 2020). In the present study, we focus on the individual predictors of tipping behavior across these five countries.

# 3.2. Research instrument

Respondents were first asked if they had previously eaten in the same restaurant where they were eating that evening (repeat customer, 1 =yes; 0 = no). They were then asked to rate food quality and service quality. These questions were rated on a five-point Likert scale (1 =below average; 2 = average; 3 = somewhat above average; 4 = wellabove average; 5 = outstanding). These questions were adapted from Lynn and Graves (1996), but were modified due to ceiling effects observed in previous studies (Lynn, 2000). The questionnaire also addressed party size (number of customers seated at the table), payment method (1 = cash; 0 = electronic payment), bill size, previous foodservice experience (1 = yes; 0 = no), income, age, gender (1 = male; 0 = no)female), dining-out frequency in the evening (1 = less than once permonth; 2 = once per month; 3 = twice/three times per month; 4 = onceper week; 5 = more than once per week). Income was measured on a rating scale from 1 = much lower than the median salary in the country to 5 = much higher than the median salary in the country. The national median salary was indicated in the questionnaire based on the values retrieved from Eurostat (2018). We recorded whether the customer had given a tip that evening or not, and the amount of the tip they had given. The outcome variables considered in this study are whether customers tipped or not (decision to tip) and the sum of money left as a tip (tip amount). Tip amount was measured in the national currency (euros in Germany, the Netherlands, and Spain; Norwegian krone in Norway, and krona in Sweden). They were collected in absolute numbers, as percentage share tipping is less common in Europe. In this paper, all values are reported in euros, using the exchange rates as of 15 June 2018. Specifically, the exchange rates for Sweden are SEK 1 = 0.0979, and for Norway: NOK 1 = 0.1056.

#### 4. Results

All the statistical analyses were run with Stata 14.1. Descriptive statistics are presented in Table 1. Notably, service quality ratings tend to be lower than those reported in the U.S. (e.g., Conlin et al., 2003; Lynn and Grassman, 1990; Lynn and Graves, 1996; Mok and Hansen, 1999). Substantial differences between countries in the tipping rate are note-worthy (97% of the respondents in Germany did tip, but only 14% in Norway did so).

To test the hypotheses, a series of ordinary least squares regression analyses with robust errors was carried out to predict both decision to tip and tip amount. In all models, the following variables were entered: Germany, the Netherlands, Norway, and Sweden as dummy variables (Spain was automatically excluded by Stata to prevent multicollinearity. By default, Spain became the comparison country.); age; gender; foodservice experience; income; repeat customer; party size; dining-out frequency; whether customers split the bill or not; bill size; payment method; food quality; service quality. All these variables were entered in the regression models because they are expected to have an influence on tipping behavior. In the first model, only these variables were entered to predict separately decision to tip (model 1a) and tip amount (model 1b). In models 2a and 2b, interactions between service quality and the other variables were added to predict decision to tip and tip amount. In models 3a and 3b, interactions between key variables to examine the impression management hypothesis were added to predict decision to tip and tip amount. Finally, in models 4a and 4b, interactions between key variables to examine the social norm hypothesis were added to predict decision to tip and tip amount (see Table 2). For an interpretation of the interaction effects, the simple slopes at one standard deviation above and below the mean were plotted following Aiken and West's (1991) procedure. Interaction effects are represented in figures with the utility developed by Dawson (2014).

When observing results obtained in model 1a, there were significant differences between countries on customers' decision to tip. Customers in Germany and Sweden were more likely to tip than customers in Spain. Customers in Norway were less likely to tip than customers in Spain. Income was positively related to decision to tip. Customers who earn a higher income were more likely to leave a gratuity than customers who earn a lower income. Repeat customers were more likely to tip than firsttime customers. Customers who split the bill were less likely to tip than those who do not split the bill. Customers who pay with cash were more likely to tip than those who pay electronically. Bill size, food quality, and service quality were also positively related to decision to tip. When considering tip amount among customers who tipped, we observed the following (model 1b). First, customers in Spain provided lower tip amounts than customers in the other countries. Second, males provided larger tip amounts than females. Income, bill size, dining-out frequency

Table 1

Descri	ntive	statistics
DUSUI	DUVC	statistics

and service quality were positively related to tip amount, whereas party size was negatively related to tip amount.

As service quality related positively to both decision to tip and tip amount, we ran additional regression analysis to investigate the interaction between service quality and other variables (models 2a and 2b). The interaction between service quality and repeat customer was significant to predict decision to tip. Service quality was positively related to decision to tip for first-time customers but not for repeat customers (see Fig. 1). The interaction between service quality and income was significant on tip amount. High income customers gave larger tips than low income customers when service quality was high but not when it was low (see Fig. 2). The significant interaction between service quality and party size on tip amount can be interpreted in the following way. When many customers ate at the table, there was no impact of service quality on tip amount. This relationship was only observed in smaller groups (see Fig. 3). The interaction between service quality and diningout frequency was significant on tip amount. Customers dining-out frequently gave larger tips than those dining-out less frequently only when service quality was high (see Fig. 4). Finally, the interaction between service quality and payment method on tip amount can be interpreted as such: service quality was positively related to tip amount when customers paid electronically but not when they paid with cash (see Fig. 5).

As gender, income and payment method were related to decision to tip and/or tip amount, which can be aligned with an impression management explanation for tipping, we ran additional regression analyses by considering interactions between these variables and respectively payment method, party size, and split. If males and customers with higher income tip to impress others, they will do so when the tip is visible to others, such as when they are in a large party, when they pay with cash, or when the bill is not split (which means they are paying for everyone). This was tested in models 3a and 3b. Most of these interactions were not significant, excepted for the interaction between income and payment method on tip amount (see Fig. 6). In contradiction to the impression management hypothesis, the positive relationship between income and tip amount was only observed when customers paid electronically and not when they paid with cash.

In models 4a and 4b, we tested the interaction between bill size and payment method, and between dining-out frequency and payment method on decision to tip and tip amount. We chose to examine these specific interactions to examine further the social norm theory of tipping behavior, and because regression models 1a and 1b showed that these three variables had an impact on tipping behavior. It can be seen in Fig. 7 that bill size was more strongly related to decision to tip when customers paid electronically than when they paid with cash, and that both bill size (Fig. 8) and dining-out frequency (Fig. 9) were more strongly related to tip amount when customers paid electronically than

	Germany	Netherlands	Norway	Sweden	Spain
Age	46.31 (16.55)	35.66 (12.62)	31.36 (11.44)	40.72 (12.89)	38.45 (12.48)
Gender	.54	.61	.43	.50	.49
Foodservice experience	.22	.34	.25	.15	.28
Income	3.38 (1.37)	2.84 (1.02)	2.78 (1.28)	3.70 (1.12)	3.22 (1.42)
Repeat customer	.60	.37	.60	.29	.62
Party size	2.59 (1.03)	3.37 (1.32)	2.90 (1.49)	3.16 (1.46)	3.56 (1.79)
Dining-out frequency	2.88 (1.02)	1.99 (.74)	2.88 (1.13)	2.27 (1.01)	2.87 (1.21)
Split	.34	.51	.80	.41	.00
Bill size	34.85 (23.42)	23.58 (15.16)	37.69 (35.63)	60.88 (34.66)	67.84 (48.21)
Payment method	.88	.50	.07	.07	.55
Food quality	3.05 (.89)	3.74 (.93)	3.20 (.95)	3.26 (.92)	2.87 (.94)
Service quality	3.02 (.96)	3.09 (.76)	2.68 (.92)	3.19 (1.05)	2.88 (1.03)
Decision to tip	.97	.55	.14	.83	.66
Tip amount	2.73 (2.05)	2.02 (1.23)	5.12 (4.06)	6.62 (4.97)	2.33 (2.23)

*Note.* Gender (1 = male; 0 = female); foodservice experience (1 = yes; 0 = no); repeat customer (1 = yes; 0 = no); split (1 = yes; 0 = no); payment method (1 = cash; 0 = electronic payment).

Results of OLS to predict decision to tip and tip amount.

	Decision to tip			Tip amount				
	Model 1a $\beta$	Model 2a $\beta$	Model 3a $\beta$	Model 4a $\beta$	Model 1b β	Model 2b $\beta$	Model 3b $\beta$	Model 4b $\beta$
Step 1								
Dummy_Germany	.26 * **	.25 * **	.27 * **	.25 * **	.26 * **	.25 * **	.27 * **	.23 * **
Dummy_Netherlands	01	01	01	01	.21 * **	.20 * **	.21 * **	.11 * **
Dummy_Norway	25 * **	25 * **	23 * **	25 * **	.13 * **	.13 * **	.14 * **	.11 * **
Dummy_Sweden	.23 * **	.23 * **	.23 * **	.23 * **	.51 * **	.48 * **	.51 * **	.49 * **
Age	.02	.02	.03	.02	01	01	.00	.00
Gender	.00	.00	.03	.00	.05 *	.05 *	.06	.06
Foodservice experience	.04	.04	.04	.04	.04	.04	.04 *	.03
Income	.09 * **	.10 * **	.11 *	.09 * **	.05 *	.05 *	.17 * **	.16 * **
Repeat customer	.04 *	.04	.04	.04 *	.03	.01	.03	.03
Party size	.05	.04	.05	.05 *	12 * *	09 * *	12 *	12 * *
Dining-out frequency	.01	.02	.02	.01	.08 * *	.07 * **	.08 * *	.17 * *
Split	08 * *	08 *	09 *	09 * *	.02	01	02	01
Bill size	.08 *	.10 *	.07 *	.11 * *	.63 * **	.54 * **	.62 * **	.61 * **
Payment method	.19 * **	.19 * **	.18 * **	.18 * **	02	02	.02	.01
Food quality	.06 * *	.06 *	.06 *	.06 * *	.04	.04	.03	.03
Service quality	.05 *	.10 *	.05 *	.05 *	.08 * *	.09	.08 * *	.09 * **
Step 2								
SO x age	_	01	_	_	_	.01	_	_
SO x gender	_	.00	-	_	_	.02	_	_
SO x foodservice experience	_	.02	-	_	_	.03	_	_
SO x income	_	.05	-	_	_	.07 * *	_	_
SQ x repeat customer	_	07 *	_	_	_	.03	_	_
SO x party size	_	.00	-	_	_	07 *	_	_
SO x dining-out frequency	_	01	-	_	_	.05 *	_	_
SO x split	_	.00	-	_	_	.04	_	_
SO x bill size	_	01	-	_	_	.10	_	_
SO x payment method	_	.00	_	_	_	12 * *	_	_
SO x food quality	_	04	_	_	_	.10	_	_
Income x party size	_	_	.03	_	_	_	04	_
Income x split	_	_	.04	_	_	_	.03	_
Income x payment method	_	_	05	_	_	_	16 * **	_
Gender x party size	_	_	01	_	_	_	03	_
Gender x split	_	_	- 03	_	_	_	04	_
Gender x payment method	_	_	- 04	_	_	_	- 06	_
Payment method x party size	_	_	02	_	_	_	02	_
Payment method x split	_	_	.04	_	_	_	.02	_
Bill size x payment method	_	_	-	06 *	_	_	_	19 * **
Dining-out frequency x payment method	_	_	-	.01	_	_	_	- 12 * **
$R^2$	41 * **	41 * **	49 * **	41 * **	62 * **	66 * **	63 * **	65 * **

*Note.* \* p < .05; \* \* p < .01; \* \* p < .01. Gender (1 = male; 0 = female); foodservice experience (1 = yes; 0 = no); repeat customer (1 = yes; 0 = no); split (1 = yes; 0 = no); payment method (1 = cash; 0 = electronic payment); SQ = service quality.



Fig. 1. Interaction between service quality and repeat customer on decision to tip.



















Fig. 6. Interaction between income and electronic payment on tip amount.







Fig. 8. Interaction between bill size and payment method on tip amount.



Fig. 9. Interaction between dining-out frequency and payment method on tip amount.

when they paid with cash.

#### 5. Discussion

This study aimed at identifying the variables influencing tipping behavior under service-inclusive pricing. In the literature review, four theories explaining tipping were introduced. First, according to equity theory, customers tip restaurant employees for the service provided, i.e., the better the service, the larger the tip (H1). Second, altruistic act theory considers tipping as an act of kindness. As individuals are more likely to help people they know and share similarities with, it was hypothesized that customers with foodservice experience are more likely to tip than those with no experience (H2) and that repeat customers are more likely to tip than non-repeat customers (H3). Third, considering that customers tip to impress others, it was hypothesized that variables such as income (H4), gender (H5) and payment method (H6) would impact tipping behavior. Fourth, social norm theory considers that customers tip because they think it is the right thing to do. As a consequence, it was hypothesized that bill size (H7) and dining-out frequency (H8) would be related to tipping behavior. In the following sections, findings pertaining to these four theories are reviewed.

# 5.1. Tipping behavior to reward good service

The hypothesis that service quality is related to tipping behavior receives some support in this study. Indeed, service quality has a significant relationship to decision to tip and tip amount. However, it is interesting to note that customers do not have always notions of equity when they tip. As a first example, repeat customers are not more likely to tip when they are satisfied with service quality than when they are not. Repeat customers may be more likely to tip because they remember previous occurrences of good service. Therefore, they are more lenient than first-time customers. As a second example, the positive relationship between service quality and tip amount is only observed for customers who pay electronically. When customers pay with cash, they do not leave larger tips when service quality is higher. One reason could be that they want to avoid offending servers if they feel service quality could be better. Another reason could be that they simply round up the bill, no matter how good the service is.

One interesting finding is that food quality was a stronger predictor of decision to tip than service quality. This result is at odds with others obtained in voluntary tipping contexts (Banks et al., 2018), demonstrating that service quality was a stronger predictor of tipping behavior than food quality. These contradictory findings can be reconciled when considering only tip amount. Similarly to voluntary tipping contexts, we observed that service quality was positively related to tip amount, whereas food quality was not. Customers do not consider food quality when deciding how much to tip, but they consider it when deciding to tip or not. This result demonstrates the importance of distinguishing between decision to tip and tip amount.

#### 5.2. Tipping behavior as an altruistic act

First, it was expected that customers with foodservice experience would tip more than those with no such experience, because they can relate more easily with employee's working conditions as they share (or have shared) the same occupation. However, no support for this hypothesis was found. The present findings hence contradict other results obtained under voluntary tipping (Lynn et al., 2008). Past studies have shown that similarity leads to generosity (e.g., Burger et al., 2004), but similarity related to foodservice experience has no impact on tipping behavior under service-inclusive pricing. Second, in line with altruistic act theory, repeat customers were expected to be more likely to tip and to provide larger tip amounts than first-time customers. However, most regression models do not show that repeat customers are more likely to tip or tip more than first-time customers. Overall, the present findings do not support customers tipping for altruistic reasons under service-inclusive pricing. This can be explained due to servers being paid by the restaurant owners and receiving wages that are higher than in voluntary tipping contexts.

#### 5.3. Tipping as an impression management tactic

If customers tip to impress others, we hypothesized the following variables related to tipping behavior: gender, income, party size, split, and payment method. In line with Kakkar and Li (2022) in Hong Kong, we observed that males provided larger tip amounts than females and that customers paying with cash were more likely to tip than those paying electronically. Moreover, customers responsible for paying the bill (who did not split the bill) were more likely to tip. These results largely concur with the impression management hypothesis. However, other results cast doubt on its importance in the present study. If customers tip to impress others, we should observe a positive correlation between party size and tip amount (and not a negative correlation, as we found). Similarly, if customers tip to impress others, they should leave larger tips when paying with cash than when paying electronically, but we did not find such results. Finally, the interactions between gender and payment method, and between income and payment method, failed to demonstrate that income and gender predicted tip amount more strongly when the tip is visible to others.

#### 5.4. Tipping behavior as a normative behavior

According to social norm theory, people tip to follow established conventions in their social group. The following results support that European customers tip to comply with social norms. As demonstrated earlier (see also Gössling et al., 2021), social norms vary across countries. The observation of significant differences between countries on both decision to tip and tip amount support this hypothesis. The positive association between bill size and tipping behavior also supports the social norm theory of tipping. There is an implicit rule that one should provide a decent tip. While it may be acceptable to tip 2 euros for a bill of 45 euros, the same tip amount might be perceived as too low for 150 euros. We also observed that dining-out frequency was related to tip amount. In other words, the more people eat in restaurants, the more they are aware of tipping norms and hence tip larger amounts of money (Conlin et al., 2003).

# 5.5. Theoretical implications

Even if the tipping norm is weaker in Europe than in the U.S., we interpret many of the present results in light of the social norm theory of tipping. Many customers tip because they feel it is the right thing to do. This conclusion is supported by the positive relationships between bill size and tip amount and between dining-out frequency and tip amount. In contradiction to voluntary tipping contexts where the influence of bill size on tip amount is not moderated by other variables (Lynn et al., 2012), we observe significant interactions that highlight the situational nature of norms. Customers round up the bill when paying with cash and do not tip based on service quality or bill size. When paying electronically, customers are not constrained by the change received from servers and, consequently, pay more attention to equity. They tend to reward servers that deliver better service. They also provide larger tips when the bill is more expensive.

We also interpret the positive relationship between income and decision to tip as supporting a social norm explanation of tipping. Customers who earn a higher income feel more obliged to tip, whereas customers who earn a lower income feel less guilty not to tip. The latter perceive the tip as an unnecessary cost. The finding that payment method is also related to decision to tip can also be interpreted as supporting the social norm explanation of tipping. First, customers might be more likely to trust that the tip will be passed on to the server when they pay with cash (Gössling et al., 2021). Second, customers might be less familiar with giving tips or forget to do so when paying electronically. Moreover, some restaurants might not offer customers the option to add on a tip with the payment terminal. Employees might also feel embarrassed to request a tip when giving the payment machine to customers (see Dyussembayeva et al., 2022). A third result can be interpreted as supporting the social norm explanation for tipping. Customers who split the bill are less likely to tip so they might be prone to a diffusion of responsibility phenomenon (Freeman et al., 1975). Overall, many results lend support to the idea that customers tip for moral reasons because they feel it is the right thing to do unless the tip will be provided by someone else at their table, when they are not satisfied with the food and the service, and when they pay electronically. In these situations, customers feel less responsible for not following the norm.

This section will analyze the similarities and differences observed between voluntary tipping, service charge, and service-inclusive pricing environments. As found in voluntary tipping environments, customers tip to follow the tipping norm. The more expensive the bill, the larger the tip. Service quality also plays a role in tipping behavior. However, its role is constrained by payment method. Customers restore equity concerns when paying electronically, whereas they round up the bill when paying with cash. In voluntary tipping contexts, other variables generally do not moderate the effect of service quality on tipping behavior. Whereas the altruistic act theory plays a role in explaining tipping behavior in voluntary tipping environments, this hypothesis receives little support in service-inclusive pricing environments. This could be explained because, in voluntary tipping contexts, customers know that servers do not receive decent wages, whereas, in service-inclusive environments, they earn decent wages (even if they are not exceptionally high). We also observe that impression management cannot offer a reasonable explanation for tipping behavior in service-inclusive pricing contexts. In comparison, studies conducted in service charge environments show that customers tip as an impression management tactic. Paying the service charge might alleviate the moral obligation to provide an extra tip in these environments.

To summarize the key theoretical contributions of this study, customers in service-inclusive pricing environments tip to follow social norms, and to a lesser extent to maintain equity. This is very similar to what has been observed in voluntary tipping environments. However, our study has identified situational constraints that have not been observed under voluntary tipping. For instance, service quality is a significant predictor of tipping behavior only when customers pay electronically or when customers eat for the first time in the restaurant. Finally, our study has not demonstrated that altruism or impression management play a role in explaining tipping behavior under service-inclusive pricing (in contradiction to service-charge environments where the positive effect of impression management on tipping behavior has been shown (Kakkar and Li, 2022) and voluntary tipping environments where studies have shown that customers tip for altruistic reasons (e.g., Parrett, 2011)).

#### 5.6. Practical implications

In the following sections, practical recommendations are offered regarding: 1) the monitoring of employee performance; and 2) the management of customers who pay electronically.

### 5.6.1. The monitoring of employee performance

Restaurant managers are interested in monitoring service quality due to its intangible and customized nature. However, as they cannot overhear employees' interactions with customers, they need other evidence to ascertain whether employees are performing well. Despite the initial appeal of using tips as an indicator of service performance (Bodvarsson and Gibson, 1994), customers are just slightly more likely to tip when service is excellent as when it is less than excellent (see also Lynn and McCall, 2000). Therefore, managers should not be encouraged to use tip amount or whether customers tip or not as proxies of service quality. Instead, managers can use the following methods to gather evidence regarding their staff's performance. First, they can use customer online reviews on dedicated websites such as TripAdvisor or Yelp. Second, they can use standardized forms to obtain feedback from guests, whether using validated scales such as DINESERV (Stevens et al., 1995) or specific scales to monitor employees' service performance (see Chi et al., 2011). Third, mystery guests can be asked to evaluate employees on a series of dimensions (e.g., Bichler et al., 2020; Liu et al., 2014). All these methods are more relevant to monitor servers' performance than tips. Two exceptions occur when tips come from first-time customers and when customers pay electronically. While it may be difficult for managers to identify if tips are provided by first-time customers, it should not be too difficult to track tip amounts provided through electronic payments. As a result, managers could have some indirect evidence about perceived service quality from customers.

#### 5.6.2. The management of customers who pay electronically

Even if the reasons surrounding the lower likelihood of tipping when paying electronically are not completely elucidated, restaurant employees should try to proactively address this problem when customers pay in this way. They can use the "but you are free" persuasion technique, which has been proven effective in many other contexts (Carpenter, 2013). For instance, while handing the bill to the customer, the server might say, "It is possible to leave a tip even when paying electronically. Feel free to add a specific amount to the bill if you desire, but you are free to do so or not." This technique has already been used successfully in restaurants to increase customers' compliance with servers' recommendations (Guéguen et al., 2017).

#### 6. Conclusion

This study fills an important gap in the literature on tipping behavior by examining the factors of tipping behavior under service-inclusive pricing (for a similar analysis under a service charge system, see Chung and Heung, 2007; Dewald, 2003; Kakkar and Li, 2022). Results show that tips depend more on customers' (e.g., income) or situational characteristics (e.g., payment method) than service quality. These findings imply that restaurant employees and managers cannot rely on tips as indicators of service quality. To finish, we acknowledge four limitations of this study. First, data were solely collected in the evening, and conclusions might not hold for lunchtime meals. Second, previous research has shown that single-item scales are less reliable than multiple-item scales to measure service quality (Lynn and McCall, 2000). Hence, the effect of service quality on tipping behavior may have been underestimated. Third, the data collection took place before the pandemic. As many changes have taken place over the last two years (e. g., more social distancing, employees having to wear masks, more cashless payments), more research is needed to determine how the pandemic has impacted tipping behavior. Fourth, we did not survey customers about their tipping norms and motivations for tipping. Future studies in Europe might use questionnaires to inquire about why customers tip (see Becker et al., 2012; Lynn, 2009).

#### **Declaration of Competing Interest**

We have no conflicts of interest to declare.

# Data availability

Data will be made available on request.

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