





Tip Collection and Distribution Practices and Policies in the **Hospitality Industry Across the Western Balkans**



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Abstract: This study investigates the practices and policies surrounding the collection and distribution of gratuities within the hospitality industry across Western Balkan countries, including Slovenia, Montenegro, Croatia, and Bosnia and Herzegovina. Diverse strategies employed by employers in these regions present distinct advantages and challenges in managing tips. A structured survey was meticulously designed to explore the nuances of tipping customs, focusing on employer policies, perceived motivational impacts, and effects on job flexibility. The data were rigorously analyzed using the Statistical Package for the Social Sciences (IBM SPSS Statistics version 25), employing techniques such as analysis of variance (ANOVA), eta square, Tukey HSD post hoc test, Kruskal-Wallis test, and Welch's ANOVA. The analysis revealed no significant statistical differences in tip distribution across different types of service companies. However, notable variances were observed in the methods of tip collection and the policies regulating tipping practices. These findings suggest a convergence in how tips are allocated, despite differing approaches to their collection and management across service companies in the region.

Keywords: Tipping; Employers; Tip collection; Tipping regulations; Meta-analysis; Hospitality industry

1. Introduction

Tipping is a long-standing practice in the service industry (Lynn & Lynn, 2004), with significant cultural (Fernandez, 2004), economic (Mansfield, 2016), and social implications (Boyes et al., 2004).

Synthesizing results across studies to reach an overall understanding of a problem and identify sources of variation in outcomes is an essential part of the scientific process (Gurevitch et al., 2018). Meta-analysis is a powerful tool for synthesizing and analyzing previous research findings (Sathian et al., 2009). This term was first introduced by Glass (1976). The systematic review process includes formal protocols for the literature search, study screening according to pre-determined criteria, data extraction and coding, and often statistical analysis (i.e. meta-analysis) along with detailed, transparent documentation of each step (Gurevitch et al., 2018). Wellestablished methods for carrying out meta-analyses generally depend on accounting for sampling variation within studies and on sources of variation among studies.

While tipping practices have been extensively studied in various regions globally, there is a noticeable gap in the literature concerning the Western Balkans region characterized by diverse cultural influences, varying levels of economic development, and a rapidly growing tourism industry. This study aims to fill this gap by conducting a comprehensive meta-analysis of tipping practices and policies within the hospitality sector across the Western Balkans, including countries such as Slovenia, Croatia, Montenegro, and Bosnia and Herzegovina.

To achieve these objectives, the study addresses the following research questions:

- What are the common tipping practices in the hospitality industry across the Western Balkans, and how do they differ between countries?
- How does the presence of a strong tourism sector in certain regions impact tipping practices and policies compared to areas with less tourist activity?

Despite the critical importance of tipping for service workers' livelihoods, research specifically addressing the

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Western Balkans is limited. Most existing studies either cover broader regions or focus on individual countries, often overlooking the distinct socio-economic and cultural characteristics of the Western Balkans. Additionally, while global tipping practices are somewhat understood, the variations in legal frameworks, particularly in transition economies like those in the Western Balkans, remain insufficiently explored. This meta-analysis aims to address this gap by providing a detailed examination of tipping practices in these countries, offering insights that could inform both academic research and regional policy-making.

By exploring these objectives and research questions, this study enhances the broader understanding of tipping practices in the service industry and provides practical recommendations to improve tipping systems in the Western Balkans. Ultimately, it seeks to promote greater fairness and transparency in tipping practices for service workers in the region. The selected Western Balkan countries offer a rich field for studying tipping practices due to their cultural diversity, varying stages of economic development, different levels of tourism dependence, and diverse regulatory environments. By examining tipping practices in Slovenia (Nikić et al., 2021), Montenegro (Nikić et al., 2021), Croatia (Raspor & Žabar, 2023), and Bosnia and Herzegovina (Raspor & Macuh, 2023), this study aims to uncover the complex interplay of cultural, economic, and legal factors that shape tipping behaviours in the region. This, in turn, contributes to a broader understanding of how service industry practices evolve in different socio-economic contexts and provides valuable insights for policymakers and industry stakeholders in the region.

This method is particularly useful when individual studies are too small to yield valid conclusions, and it can be applied to a range of study designs, including randomized control trials and non-experimental studies (Sathian et al., 2009). A meta-analysis of previous articles on tipping involving Slovenia and Montenegro and new research for Croatia, Bosnia and Herzegovina were undertaken in this study, aiming to identify the peculiarities, common points, and fundamental differences in individual countries.

2. Theoretical Background

Tipping in the service industry is a complex phenomenon influenced by various factors beyond service quality. While tipping is often viewed as an incentive for good service, research suggests the relationship between service quality and tip size is weak (Azar, 2009). Factors such as consumer demographics, industry norms, and social expectations also play a role (Bujisic et al., 2014). Tipping practices can lead to both positive and negative outcomes, including selective attraction of better service workers (Lynn et al., 2011) and potential discrimination against minority servers (Banks et al., 2018). Despite its prevalence, tipping's effectiveness in addressing the principal-agent problem in service industries is questionable (Banks et al., 2018). Some argue for replacing voluntary tipping with mandatory service charges to improve the industry (Margalioth, 2006). However, withinsubjects studies have shown a reliable correlation between service ratings and tip sizes, supporting tipping's role as a service quality incentive (Lynn & Sturman, 2010).

Tipping is a significant economic phenomenon in the service industry, particularly in restaurants, involving billions of dollars annually (Azar, 2020). While tipping can incentivize better service quality (Banks et al., 2018), it may also lead to economic inefficiency by discouraging consumer demand (Lin, 2020). Tipping practices are influenced by various factors, including social norms, gender, and generational differences (Nelson, 2017). The practice can affect employee attitudes and job satisfaction (Wung & Nanfosso, 2023), but it may also reinforce social inequalities and create precarious working conditions (Ross & Welsh, 2023). Tipping has been found to have both positive and negative impacts on food service responsiveness (Were et al., 2020) and restaurant profitability (Esmaeily, 2022). Despite its widespread use, the effectiveness of tipping as a compensation practice to address principal-agent problems remains questionable, given the small positive correlation between service quality and tip amount (Banks et al., 2018).

2.1 Rethinking Service and Compensation

The relationship between tipping, service quality, and employee compensation is undergoing scrutiny. Some establishments are experimenting with service-inclusive pricing to ensure fair wages for all staff members. This shift challenges the traditional reliance on tips as a sizable portion of service workers' income. Two studies by Premalatha (2019) and Roschk & Gelbrich (2017) emphasize the importance of rethinking compensation in the service sector. The former highlights the impact of personal and tangible compensation on recovery satisfaction and reciprocal customer behaviour, while the latter focuses on the link between compensation and employee performance. These findings suggest that a reevaluation of compensation strategies, particularly in terms of personalization and tangibility, could lead to improved outcomes for both customers and employees. Pynes (2007) further supported this notion by discussing the need for flexible and performance-based compensation systems in the public and private sectors, respectively.

2.2 Specific Focus on Tipping Regulations and Practices

In the service industry, tipping has long been a source of both additional income for employees and a way for customers to express satisfaction with service. With the transition from fixed, state-controlled wages to a more market-driven compensation system in many post-communist countries, the role of tipping has become even more intriguing. This study examines how businesses in four such countries, i.e., Slovenia, Croatia, Bosnia and Herzegovina, and Montenegro, navigate the complexities of tipping regulations and practices. By exploring the unique cultural and economic contexts of each nation, this study aims to shed light on how companies approach tipping policies, employee expectations, and customer behaviour.

Nikić et al. (2021) highlighted the differences in tipping regulations and practices between Slovenia and Montenegro, with the former having a more defined system. Svetlicinii (2012) discussed the enforcement practices of competition authorities in Bosnia & Herzegovina, Croatia, Macedonia, and Serbia, which may indirectly impact tipping regulations. Gumzej & Grgić (2013) and Jankovic et al. (2010) provided insights into the harmonization of regulations in Croatia and Slovenia, which could also influence tipping practices. However, these studies have not directly addressed the specific focus on tipping regulations and practices in these countries.

2.3 Tip Collection by Employers in Service Businesses

Employers in service businesses collect tips through various methods, each with its benefits and drawbacks. Voluntary tipping can motivate employees and attract talented workers, but it also raises the risk of income tax audits and discrimination in service delivery (Lynn & Withiam, 2008). In some countries, such as Slovenia, there are regulated systems for the collection and distribution of tips, while in others, like Montenegro, these systems are not clearly defined (Nikić et al., 2021). The Internal Revenue Service (IRS) has emphasized the importance of correct tip allocation (Schmidgall & Tarras, 1988). Tipping systems can impact employee perceptions of fairness and distributive justice (Lin & Namasivayam, 2011). The decision to keep voluntary tipping or replace it with service charges or higher service-inclusive menu pricing should depend on the relative strengths of the benefits (Lynn, 2017). Thus, the following hypothesis was proposed:

H1: The methods of collecting, regulating and distributing tips vary between types of service companies.

2.4 Tip Division Among Employees in Service Companies

Research on the division of tips among employees in service companies reveals a range of factors influencing this practice. Nikić et al. (2021) found that the distribution of tips is more orderly in Slovenia than in Montenegro, suggesting that management control can impact this process. Lin & Namasivayam (2011) highlighted the impact of different tipping systems on employees' perceptions of fairness and distributive justice. Estreicher & Nash (2018) argued for the value of tipping as a social institution and proposed unrestricted tip-pooling as a means of promoting cooperation among employees. Lynn et al. (2011) and Lynn & Ni (2022) both explored the effects of tip distribution policies, with the former suggesting that tipping can help attract and retain better service workers, and the latter finding that consumers prefer servers to keep their tips. Azar (2006) provided a broader perspective, comparing the pros and cons of tipping, service charges, and service-inclusive pricing, and discussing the theoretical and strategic implications of tipping for firms and markets. Lavoie et al. (2021) added a customer perspective, comparing the effectiveness of preservice tips and compliments in obtaining better service. Thus, the following hypothesis was proposed:

H2: How tips are collected, regulated and distributed differently between countries.

3. Methodology

This study undertakes a meta-analysis of previous articles on tipping involving Slovenia (2019) and Montenegro (2019) and new research for Croatia (2020), Bosnia and Herzegovina (2020), aiming to identify the peculiarities, common points, and fundamental differences in individual countries.

Survey design: A structured survey questionnaire was crafted and employed to investigate tipping practices. The questionnaire encompasses inquiries regarding employers' policies on tipping, their perceptions of tipping's motivational impact, and its effects on work flexibility.

Sampling and data collection: Employers in Slovenia, Montenegro (Nikić et al., 2021), Croatia (Raspor & Žabar, 2023), and Bosnia and Herzegovina (Raspor & Macuh, 2023) were surveyed in this study. Data collection involves distributing survey questionnaires to employers and soliciting their responses. Random sampling techniques ensure diverse representation across sectors and regions. Surveys were administered via online platforms, email, or inperson interactions, accommodating participant preferences. Professional networks and business associations facilitate engagement with potential respondents. Demographic data is outlined in Table 1.

Table 1. Demographic data

	Slo	ovenia	Mo	ntenegro	C	roatia	Bosnia a	nd Hercegovina	-	Fotal
	F	VP	F	VP	F	VP	F	VP	F	VP
			Q8: 0	Organizati	onal	Structure				
Public limited company (PLC)	30	28.04%	2	3.39%	4	11.76%	6	27.27%	42	18.92%
Private Limited Liability Company (LTD)	36	33.64%	55	93.22%	26	76.47%	13	59.09%	130	58.56%
Sole proprietorship (PC)	41	38.32%	2	3.39%	0	0.00%	2	9.09%	45	20.27%
Other (specify):		0.00%		0.00%	4	11.76%	1	4.55%	5	2.25%
Total	107	100%	59	100%	34	100%	22	100%	222	100%
			Q9:	Number	of En	ployees				
Micro companies (up to 10 employees)	25	23.36%	43	71.67%	25	71.43%	17	77.27%	110	49.11%
Small companies (up to 50 employees)	4	3.74%	7	11.67%	7	20.00%	4	18.18%	22	9.82%
Middle companies (up to 250 employees)	13	12.15%	2	3.33%	3	8.57%	1	4.55%	19	8.48%
Large companies (more than 250 employees)	65	60.75%	8	13.33%	0	0.00%	0	0.00%	73	32.59%
Total	107	100%	60	100%	35	100%	22	100%	224	100%
				Q10: B	usine	SS				
Hospitality	67	62.62%	39	66.10%	25	71.43%	16	72.73%	147	65.92%
Gambling	15	14.02%	1	1.69%	1	2.86%	1	4.55%	18	8.07%
Hair & beauty salon	6	5.61%	7	11.86%	3	8.57%	2	9.09%	18	8.07%
Service station	7	6.54%	2	3.39%	0	0.00%	2	9.09%	11	4.93%
Other (specify):	4	3.74%	7	11.86%	6	17.14%	1	4.55%	18	8.07%
Shop	8	7.48%	3	5.08%	0	0.00%	0	0.00%	11	4.93%
Total	107	100%	59	100%	35	100%	22	100%	223	100%
		Q	11: C	wnership	of the	e Compan	y			
Private	68	64.76%	52	86.67%	29	82.86%	21	95.45%	170	76.58%
State-owned	25	23.81%	6	10.00%	2	5.71%	0	0.00%	33	14.86%
Mixed	12	11.43%	2	3.33%	4	11.43%	1	4.55%	19	8.56%
Total	105	100%	60	100%	35	100%	22	100%	222	100%

Data analysis: Following data collection, survey responses were meticulously analyzed. Quantitative methods quantify the prevalence of tipping practices and employers' perspectives. Qualitative analysis techniques were used to identify recurrent themes and patterns in employers' attitudes and perceptions. To make the analysis accurate, a statistical data analysis was carried out with the help of IBM SPSS Statistics (version 25). For statistical analysis, apart from the mean value, ANOVA, eta square, Tukey HSD post hoc test (Cohen, 1988; Henson, 2015; Molugaram & Rao, 2017; Smith, 1972), Kruskal-Wallis test (Bobbitt, 2019; Glen, 2022) and Welch's ANOVA (Delacre et al., 2019) were used as well.

A one-way ANOVA was used to define if there is a statistically significant correlation between dependent variables (tipping collection/q1, tipping regulation/q2, tipping distribution/q3, motivational factors/q5, work flexibility/q6) and independent variables (type of service companies/q10, countries, tipping regulation/q2).

It must be noted that when $p \le 0.05$, there is a significant difference between the mean values of the dependent variables in each group. Otherwise, when p > 0.05, the difference between the two groups is not significant but coincidental. On the other hand, eta square was used to measure differences between attitudes. The formula of sum squares/total was used to get the value of eta square (interpretation of eta square: 0.01 - small effect; 0.06 - medium effect; 0.14 - major effect). Additionally, a significant correlation between a subset of data in independent variables regarding dependent variables was measured through the multiple correlations using the Tukey HSD post hoc test method. There are several limitations of the statistical method, such as ANOVA.

In an ANOVA study, when assumptions are violated, many potential biases and influences can occur which then alter the results in a non-valid or reliable manner. To prove a point, some critical biases to be aware of are as follows:

- a) Increased type I error: When the assumption of homogeneity of variances (equal variance across groups) is violated, this may induce type I error inflation (i.e., false positive detection of an effect: banning language that is not truly correlated with a linguistic variable and finding it significant anyway) (Troncoso Skidmore & Thompson, 2013):
- b) Increased type II error: Violating the assumption of normality with small sample sizes reduces the power of the test. This leads to a higher risk of not spotting a real effect, resulting in a type II error (Troncoso Skidmore & Thompson, 2013);

- c) Biased estimates of effect size: Effects are typically estimated using simple experimental designs that assume homogeneity, independence and constant variances in covariates. For instance, a widely popular eta-squared can be highly biased when assumptions are violated with over- or under-estimation of the actual effect size (Troncoso Skidmore & Thompson, 2013);
- d) Misleading F-statistic: The assumption that the two data sets are independent and randomly allocated to groups is very important for the F statistics; otherwise, it can be perverted leading to wrong conclusions about the differences in means between groups. This can result in incorrect conclusions about the differences between group means (McKillup, 2012);
- e) Inflated F-ratio in repeated measures: In repeated measures of ANOVA, the test is based on sphericity assumption which means that the criterion for a variance of differences needs to satisfy with X having the same structure and pattern across conditions; otherwise, a wrong inflated F-ratio effect could be found (Bobbitt, 2019).

To address these biases, the proposed assumptions need to be examined before carrying out ANOVA. If the assumptions don't hold up, other options or tweaks should be thought about. A non-parametric test might be used or some transformations applied to the data. According to Levene's test (Weinberg & Abramowitz, 2016), in the process of testing hypothesis H1 for dependent variable data q1, q2 and q3 across independent variable data q10, it was observed that the assumption of homogeneity of variances (equal variance among groups) is slightly violated. Table 2 and the subgraphs a, b, and c of Figure 1 show the homogeneity tests.

In addition, the Shapiro-Wilk test (Thode, 2002) and quantile-quantile (Q-Q) plots (Ben & Yohai, 2004) were used to check the normality of the data distribution (q1, q2, and q3), which is shown in Table 3 and the subgraphs a, b, and c of Figure 1.

Levene's test examines whether groups have equal variances. The results for Q1, Q2, and Q3 are as follows:

- As for Q1, p-values are above 0.05, which means the variances don't differ much between groups. This meets the homogeneity of variances assumption for Q1.
- As for Q2, p-values are below 0.05 for the mean and trimmed mean, pointing to big differences in variances between groups. This breaks the homogeneity of variances assumption for Q2 when looking at the mean and trimmed mean. However, it holds up when the median is used.
- As for Q3, all p-values are under 0.05, highlighting major differences in variances between groups. This doesn't satisfy the homogeneity of variances assumption for Q3.

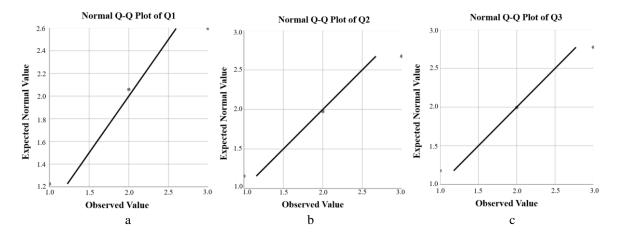


Figure 1. Q-Q plots of variance of data (variables q1, q2 and q3)

Table 2. Levene's test for homogeneity of variances of data (variables q1, q2 and q3 across q10)

	Test of Homogeneity of Varia	nces			
		Levene Statistic	df1	df2	Sig.
	Based on mean	.642	5	217	.668
Q1: Do you allow your	Based on median	.347	5	217	.884
employees to collect tips?	Based on the median and with adjusted df	.347	5	202.618	.884
	Based on trimmed mean	.522	5	217	.759
02. D 11-t-1	Based on mean	5.284	5	212	.000
Q2: Do you have a regulated	Based on median	1.744	5	212	.126
system of collecting and	Based on the median and with adjusted df	1.744	5	194.190	.126
sharing tips?	Based on trimmed mean	5.361	5	212	.000
Q3: In addition to the	Based on mean	4.206	5	210	.001
employees who create tips,	Based on median	3.676	5	210	.003
are other workers also	Based on the median and with adjusted df	3.676	5	191.045	.003
entitled to tipping?	Based on trimmed mean	4.471	5	210	.001

Table 3. Normality of the data distribution (q1, q2 and q3) using the Shapiro-Wilk test

	7	Tests of No	rmalit	y			
	010	Kolmog	orov-S	mirnov ^a	Shap	iro-Wi	lk
	Q10	Statistic	df	Sig.	Statistic	df	Sig.
	Hospitality	.447	144	.000	.574	144	.000
	Gaming	.440	17	.000	.579	17	.000
Q1	Hairdressing and beauty salon	.469	17	.000	.533	17	.000
Ųī	Petrol service	.330	11	.001	.754	11	.002
	Other	.312	18	.000	.747	18	.000
	Shop	.335	9	.004	.748	9	.005
	Hospitality	.350	144	.000	.725	144	.000
	Gaming	.521	17	.000	.385	17	.000
02	Hairdressing and beauty salon	.257	17	.004	.799	17	.002
Q2	Petrol service	.332	11	.001	.756	11	.002
	Other	.279	18	.001	.776	18	.001
	Shop	.351	9	.002	.781	9	.012
	Hospitality	.259	144	.000	.790	144	.000
	Gaming	.469	17	.000	.533	17	.000
O2	Hairdressing and beauty salon	.325	17	.000	.754	17	.001
Q3	Petrol service	.385	11	.000	.724	11	.001
	Other	.283	18	.001	.759	18	.000
	Shop	.297	9	.021	.813	9	.028

Note: a. Lilliefors significance correction

The normality of the data distribution (q1, q2 and q3) across q10 tested by the Shapiro-Wilk test and Q-Q plots is presented in the following table and figures.

If the Shapiro-Wilk test shows a p-value less than 0.05, it means that the data do not follow a normal distribution (van den Berg, 2024), which is the case with the data from the table. This means that the ANOVA method is not fully recommended because it assumes the normality of the data.

The following figures present the Q-Q plots of variance of data to see if it follows a normal distribution.

According to the Q-Q plots, the data for Q1, Q2, and Q3 looks like it follows a normal distribution because the data points sit close to the reference line. In addition, there are no big differences from the line. In this case, it is confirmed the aforementioned observation. The Kruskal-Wallis test (Bobbitt, 2019; Glen, 2022) was applied as a non-parametric test to further determine the results obtained using the ANOVA method. The test helps to find out if big differences exist between the middle values of three or more separate groups. When data doesn't follow a normal pattern, this test is used instead of the one-way ANOVA.

To use the Kruskal-Wallis test, the following things need to be checked:

- a) The answer must be in order (like a 1-5 scale) or a number that can be any value (like weight).
- b) Each group's data should not depend on the others.
- c) The data in all groups should look about the same when graphing it (Bobbitt, 2019; Glen, 2022).

In the process of testing hypothesis *H*2 for dependent variable data q1, q2 and q3 across independent variable data countries, the assumption of homogeneity of variances (equal variance among groups) and the normality of the data distribution were also tested. Table 4 shows the homogeneity tests.

Table 4. Levene's test for homogeneity of variances of data (variables q1, q2 and q3 across q10)

	Test of Homogeneit	ty of Variances			
		Levene Statistic	df1	df2	Sig.
	Based on mean	17.972	3	245	0.000
01	Based on median	16.079	3	245	0.000
Q1	Based on the median and with adjusted df	16.079	3	162.555	0.000
	Based on trimmed mean	19.403	3	245	0.000
	Based on mean	3.511	3	229	0.016
02	Based on median	4.260	3	229	0.006
Q2	Based on the median and with adjusted df	4.260	3	213.125	0.006
	Based on trimmed mean	4.098	3	229	0.007
	Based on mean	12.431	3	228	0.000
02	Based on median	6.382	3	228	0.000
Q3	Based on the median and with adjusted df	6.382	3	167.292	0.000
	Based on trimmed mean	11.617	3	228	0.000

For all questions (Q1, Q2, Q3), Levene's test shows significant results (p < 0.05) across different methods (mean, median, trimmed mean). Levene's test results indicate that this assumption is violated (p < 0.05 for all questions). This violation suggests that the variances are not equal across groups, which can affect the validity of the ANOVA results.

The normality of the data distribution (q1, q2 and q3) across countries tested by the Shapiro-Wilk test and Q-Q plots are presented in the following Table 5 and Figure 2.

For all questions (Q1, Q2, Q3) and all countries, the p-values are less than 0.05, indicating that the null hypothesis of normality can be rejected. This means that the data is not normally distributed for any of the groups. Figure 2 represents the Q-Q plots of variance of data to see if it follows a normal distribution.

Table 5. Normality of the data distribution (q1, q2 and q3) using the Shapiro-Wilk test

	Tests of Normality									
	Country	Kolmogo	rov-Sn	nirnov ^a	Shapiro-Wilk					
	Country	Statistic	df	Sig.	Statistic	df	Sig.			
	Slovenia	0.324	105	0.000	0.682	105	0.000			
Q1	Montenegro	0.444	64	0.000	0.582	64	0.000			
	Croatia	0.518	41	0.000	0.385	41	0.000			
	Bosnia and Herzegovina	0.512	21	0.000	0.422	21	0.000			
	Slovenia	0.455	105	0.000	0.569	105	0.000			
Ω^2	Montenegro	0.212	64	0.000	0.807	64	0.000			
Q2	Croatia	0.333	41	0.000	0.740	41	0.000			
	Bosnia and Herzegovina	0.407	21	0.000	0.683	21	0.000			
	Slovenia	0.333	105	0.000	0.760	105	0.000			
02	Montenegro	0.301	64	0.000	0.747	64	0.000			
Q3	Croatia	0.363	41	0.000	0.701	41	0.000			
	Bosnia and Herzegovina	0.379	21	0.000	0.687	21	0.000			

Note: a. Lilliefors significance correction

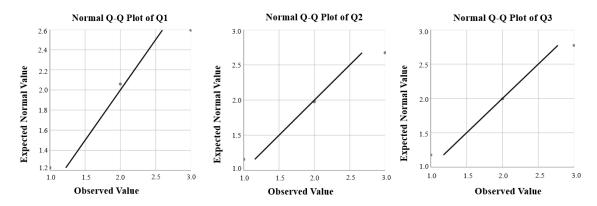


Figure 2. Q-Q plots of variance of data (variables q1, q2 and q3)

These figures confirm the aforementioned observation concerning the normality of the data distribution. In that case, Welch's ANOVA (Delacre et al., 2019) was applied as a test in statistics used to compare the means of three or more groups. It is a variant of the classic ANOVA and is especially helpful when the assumption of homogeneity of variances is not achieved. Unlike traditional ANOVA, Welch's ANOVA does not assume equal variances across groups, making it more robust in situations where variances are unequal to each other.

Ethical considerations: The study adheres to stringent ethical standards. Researchers obtained informed consent from participants, respecting their autonomy and confidentiality. Transparent measures were taken to address potential biases or conflicts of interest, safeguarding the research's integrity and credibility.

4. Results

Based on the data in the Table 6 about tipping regulations at the company level in Slovenia, Montenegro, Croatia, and Bosnia and Herzegovina, the majority of companies (64.66%) in all four countries (Slovenia: 48,15%; Montenegro: 71.21%, Croatia: 86.00%, Bosnia and Herzegovina: 76.00%) allow their employees to collect tips. Across all the countries, a significant portion (52,79%) of companies (Slovenia: 74.53%, Montenegro: 26.15%, Croatia: 53.66%, Bosnia and Herzegovina: 23.81%) have a system in place to regulate how tips are collected and shared among employees. Similarly, a substantial share (52,79%) of companies in each country (Slovenia: 74.53%,

Montenegro: 26.15%, Croatia: 53.66%, Bosnia and Herzegovina: 23.81%) allow workers beyond those directly generating tips to participate in the sharing system.

To be able to determine statistically significant differences between an observed set of data and to test hypotheses H1, ANOVA eta square, Tukey HSD post hoc test (Table 7, Table 8, and Table 9) and Kruskal-Wallis test (Table 10 and the subgraphs a, b, c of Figure 3) were used in this study.

It can be noted that there is no statistically significant difference between observed groups regarding tipping distribution (q3) as a dependent variable according to the type of service companies as an independent variable. A significant difference is confirmed regarding tipping collection (q1) and tipping regulation (q2). ANOVA shows that significant differences between means of dependent variables exist within examined groups of tipping collection (q1) and tipping regulation (q2) concerning the type of service companies as independent variables. The value of the eta square is presented in the following table.

Regarding this measure, it could be noted that the type of service companies as an independent variable has a moderate influence on tipping collection and tipping regulation and a low influence concerning tipping distribution. The post hoc test shows statistically significant differences in a subset of data regarding the type of service companies.

 Table 6. Regulation of tipping at the company level

	Sle	ovenia	Mo	ntenegro	(Croatia	Bosnia a	and Hercegovina	-	Total
	F	VP	F	VP	F	VP	F	VP	F	VP
		Q1: Do	you a	allow your	emp	loyees to c	ollect tips	?		
Yes	52	48.15%	47	71.21%	43	86.00%	19	76.00%	161	64.66%
No	10	9.26%	5	7.58%	1	2.00%	2	8.00%	18	7.23%
I don't want to answer.	46	42.59%	14	21.21%	6	12.00%	4	16.00%	70	28.11%
Total	108	100%	66	100%	50	100%	25	100%	249	100%
Q2: Do you have a regulated system of collecting and sharing tips?										
Yes	79	74.53%	17	26.15%	22	53.66%	5	23.81%	123	52.79%
No	21	19.81%	28	43.08%	14	34.15%	15	71.43%	78	33.48%
I don't want to answer.	6	5.66%	20	30.77%	5	12.20%	1	4.76%	32	13.73%
Total	106	100%	65	100%	41	100%	21	100%	233	100%
Q3: In addit	ion to	the employ	vees v	vho create	tips,	are other	workers a	lso entitled to tip	oing?	
Yes	79	74.53%	17	26.15%	22	53.66%	5	23.81%	123	52.79%
No	21	19.81%	28	43.08%	14	34.15%	15	71.43%	78	33.48%
I don't want to answer.	6	5.66%	20	30.77%	5	12.20%	1	4.76%	32	13.73%
Total	106	100%	65	100%	41	100%	21	100%	233	100%

Table 7. Methods of collecting, regulating, and distributing tips vs type of service companies

	ANOVA					
		Sum of Squares	df	Mean square	F	Sig.
Q1: Do you allow your employees to collect tips?	Between groups	10.778	5	2.156	2.838	0.017
	Within groups	164.801	217	0.759		
	Total	175.578	222			
Q2: Do you have a regulated system of collecting	Between groups	5.748	5	1.150	2.403	0.038
and sharing tips?	Within groups	101.427	212	0.478		
	Total	107.174	217			
O2. In addition to the annulation make time	Between groups	2.583	5	0.517	0.899	0.483
Q3: In addition to the employees who create tips, are other workers also entitled to tipping?	Within groups	120.745	210	0.575		
	Total	123.329	215			

Table 8. Eta square

Measures of Association									
	Eta	Eta Squared							
Q1 * Q10	0.248	0.061							
Q2 * Q10	0.232	0.054							
Q3 * Q10	0.145	0.021							

Table 9. Post hoc test

		Multiple Com Mean Difference		~.	95% Confide	nce Interval
Dependent	t Variable	(I-J)	Error	Sig.	Lower Bound	Upper Bound
	Q1: Do yo	u allow your em		llect tips?		
	Gaming	789*	0.218	0.005	-1.41	-0.16
	Hairdressing and beauty salon	0.044	0.218	1	-0.58	0.67
Hospitality	Petrol service	-0.092	0.272	0.999	-0.88	0.69
	Second	-0.234	0.218	0.892	-0.86	0.39
	Shop	-0.183	0.272	0.985	-0.97	0.6
	Hospitality	.789*	0.218	0.005	0.16	1.41
	Hairdressing and beauty salon	0.833	0.29	0.051	0	1.67
Gaming	Petrol service	0.697	0.334	0.297	-0.26	1.66
	Second	0.556	0.29	0.397	-0.28	1.39
	Shop	0.606	0.334	0.457	-0.35	1.57
	Hospitality	-0.044	0.218	1	-0.67	0.58
** * * * * * * * * * * * * * * * * * * *	Gaming	-0.833	0.29	0.051	-1.67	0
Hairdressing and	Petrol service	-0.136	0.334	0.999	-1.1	0.82
beauty salon	Second	-0.278	0.29	0.931	-1.11	0.56
	Shop	-0.227	0.334	0.984	-1.19	0.73
	Hospitality	0.092	0.272	0.999	-0.69	0.88
	Gaming	-0.697	0.334	0.297	-1.66	0.26
Petrol service	Hairdressing and beauty salon	0.136	0.334	0.999	-0.82	1.1
	Second	-0.141	0.334	0.998	-1.1	0.82
	Shop	-0.091	0.372	1	-1.16	0.98
	Hospitality	0.234	0.218	0.892	-0.39	0.86
Second	Gaming	-0.556	0.29	0.397	-1.39	0.28
	Hairdressing and beauty salon	0.278	0.29	0.931	-0.56	1.11
	Petrol service	0.141	0.334	0.998	-0.82	1.1
	Shop	0.051	0.334	1	-0.91	1.01
	Hospitality	0.183	0.272	0.985	-0.6	0.97
	Gaming	-0.606	0.334	0.457	-1.57	0.35
Shop	Hairdressing and beauty salon	0.227	0.334	0.984	-0.73	1.19
	Petrol service	0.091	0.372	1	-0.98	1.16
	Second	-0.051	0.334	1	-1.01	0.91
	Q2: Do you have a			g and shar		
	Gaming	0.392	0.173	0.212	-0.11	0.89
	Hairdressing and beauty salon	-0.206	0.177	0.854	-0.72	0.3
Hospitality	Petrol service	0.013	0.216	1	-0.61	0.64
	Second	-0.275	0.173	0.607	-0.77	0.22
	Shop	-0.33	0.238	0.733	-1.01	0.35
				0.010	-0.89	0.11
	Hospitality	-0.392	0.173	0.212	-0.07	
	Hospitality Hairdressing and beauty salon	-0.392 -0.598	0.173 0.234	0.212	-1.27	0.07
Gaming	Hairdressing and					
Gaming	Hairdressing and beauty salon	-0.598	0.234	0.113	-1.27	0.07
Gaming	Hairdressing and beauty salon Petrol service Second Shop	-0.598 -0.379 667* -0.722	0.234 0.265 0.231 0.282	0.113 0.708 0.048 0.113	-1.27 -1.14 -1.33 -1.53	0.07 0.38
Gaming	Hairdressing and beauty salon Petrol service Second Shop Hospitality	-0.598 -0.379 667* -0.722 0.206	0.234 0.265 0.231 0.282 0.177	0.113 0.708 0.048 0.113 0.854	-1.27 -1.14 -1.33 -1.53 -0.3	0.07 0.38 0 0.09 0.72
-	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming	-0.598 -0.379 667* -0.722 0.206 0.598	0.234 0.265 0.231 0.282 0.177 0.234	0.113 0.708 0.048 0.113 0.854 0.113	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07	0.07 0.38 0 0.09 0.72 1.27
Hairdressing and	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service	-0.598 -0.379 667* -0.722 0.206 0.598 0.219	0.234 0.265 0.231 0.282 0.177 0.234 0.268	0.113 0.708 0.048 0.113 0.854 0.113 0.964	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55	0.07 0.38 0 0.09 0.72 1.27 0.99
-	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service Second	-0.598 -0.379 667* -0.722 0.206 0.598 0.219 -0.069	0.234 0.265 0.231 0.282 0.177 0.234 0.268 0.234	0.113 0.708 0.048 0.113 0.854 0.113 0.964	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55 -0.74	0.07 0.38 0 0.09 0.72 1.27 0.99 0.6
Hairdressing and	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service Second Shop	-0.598 -0.379 667* -0.722 0.206 0.598 0.219 -0.069 -0.124	0.234 0.265 0.231 0.282 0.177 0.234 0.268 0.234 0.285	0.113 0.708 0.048 0.113 0.854 0.113 0.964 1 0.998	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55 -0.74 -0.94	0.07 0.38 0 0.09 0.72 1.27 0.99 0.6 0.7
Hairdressing and	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service Second Shop Hospitality	-0.598 -0.379 667* -0.722 0.206 0.598 0.219 -0.069 -0.124 -0.013	0.234 0.265 0.231 0.282 0.177 0.234 0.268 0.234 0.285 0.216	0.113 0.708 0.048 0.113 0.854 0.113 0.964 1 0.998	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55 -0.74 -0.94 -0.64	0.07 0.38 0 0.09 0.72 1.27 0.99 0.6 0.7 0.61
Hairdressing and	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service Second Shop Hospitality Gaming	-0.598 -0.379 667* -0.722 0.206 0.598 0.219 -0.069 -0.124	0.234 0.265 0.231 0.282 0.177 0.234 0.268 0.234 0.285	0.113 0.708 0.048 0.113 0.854 0.113 0.964 1 0.998	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55 -0.74 -0.94	0.07 0.38 0 0.09 0.72 1.27 0.99 0.6 0.7
Hairdressing and	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service Second Shop Hospitality Gaming Hairdressing and beauty salon	-0.598 -0.379 667* -0.722 0.206 0.598 0.219 -0.069 -0.124 -0.013 0.379 -0.219	0.234 0.265 0.231 0.282 0.177 0.234 0.268 0.234 0.285 0.216 0.265	0.113 0.708 0.048 0.113 0.854 0.113 0.964 1 0.998 1 0.708 0.964	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55 -0.74 -0.94 -0.64 -0.38 -0.99	0.07 0.38 0 0.09 0.72 1.27 0.99 0.6 0.7 0.61 1.14 0.55
Hairdressing and beauty salon	Hairdressing and beauty salon Petrol service Second Shop Hospitality Gaming Petrol service Second Shop Hospitality Gaming Hairdressing and	-0.598 -0.379 667* -0.722 0.206 0.598 0.219 -0.069 -0.124 -0.013 0.379	0.234 0.265 0.231 0.282 0.177 0.234 0.268 0.234 0.285 0.216 0.265	0.113 0.708 0.048 0.113 0.854 0.113 0.964 1 0.998 1 0.708	-1.27 -1.14 -1.33 -1.53 -0.3 -0.07 -0.55 -0.74 -0.94 -0.64 -0.38	0.07 0.38 0 0.09 0.72 1.27 0.99 0.6 0.7 0.61 1.14

	Gaming	.667*	0.231	0.048	0	1.33
	Hairdressing and	0.069	0.234	1	-0.6	0.74
	beauty salon	0.009	0.234	1	-0.0	0.74
	Petrol service	0.288	0.265	0.886	-0.47	1.05
	Shop	-0.056	0.282	1	-0.87	0.76
	Hospitality	0.33	0.238	0.733	-0.35	1.01
	Gaming	0.722	0.282	0.113	-0.09	1.53
Shop	Hairdressing and beauty salon	0.124	0.285	0.998	-0.7	0.94
	Petrol service	0.343	0.311	0.879	-0.55	1.24
	Second	0.056	0.282	1	-0.76	0.87
O3: In ad	dition to the employees			vorkers also		
	Gaming	0.076	0.194	0.999	-0.48	0.63
	Hairdressing and beauty salon	0.252	0.194	0.787	-0.31	0.81
Hospitality	Petrol service	-0.069	0.237	1	-0.75	0.61
	Second	-0.049	0.19	1	-0.59	0.5
	Shop	-0.382	0.261	0.686	-1.13	0.37
	Hospitality	-0.076	0.194	0.999	-0.63	0.48
	Hairdressing and					
Gaming	beauty salon	0.176	0.26	0.984	-0.57	0.92
	Petrol service	-0.144	0.293	0.996	-0.99	0.7
	Second	-0.124	0.256	0.997	-0.86	0.61
	Shop	-0.458	0.313	0.688	-1.36	0.44
	Hospitality	-0.252	0.194	0.787	-0.81	0.31
Hairdressing and	Gaming	-0.176	0.26	0.984	-0.92	0.57
beauty salon	Petrol service	-0.321	0.293	0.884	-1.16	0.52
ocaaty salon	Second	-0.301	0.256	0.85	-1.04	0.44
	Shop	-0.634	0.313	0.33	-1.53	0.27
	Hospitality	0.069	0.237	1	-0.61	0.75
	Gaming	0.144	0.293	0.996	-0.7	0.99
Petrol service	Hairdressing and beauty salon	0.321	0.293	0.884	-0.52	1.16
	Second	0.02	0.29	1	-0.81	0.85
	Shop	-0.313	0.341	0.941	-1.29	0.67
	Hospitality	0.049	0.19	1	-0.5	0.59
	Gaming	0.124	0.256	0.997	-0.61	0.86
Second	Hairdressing and beauty salon	0.301	0.256	0.85	-0.44	1.04
	Petrol service	-0.02	0.29	1	-0.85	0.81
	Shop	-0.333	0.23	0.89	-1.22	0.56
	Hospitality	0.382	0.261	0.686	-0.37	1.13
	Gaming	0.458	0.313	0.688	-0.44	1.36
Shop	Hairdressing and beauty salon	0.634	0.313	0.33	-0.27	1.53
	Petrol service	0.313	0.341	0.941	-0.67	1.29
	Second	0.333	0.31	0.89	-0.56	1.22

Note: * indicates that the mean difference is significant at the 0.05 level.

Table 10. Independent-samples Kruskal-Wallis test

	Hypot	thesis Test Summary		
No.	Null Hypothesis	Test	Sig.	Decision
1	The medians of Q1 are the same across categories of Q10.	Independent-Samples Median Test	.013	Reject the null hypothesis.
2	The distribution of Q1 is the same across categories of Q10.	Independent-Samples Kruskal- Wallis Test	.018	Reject the null hypothesis.
3	The medians of Q2 are the same across categories of Q10.	Independent-Samples Median Test	.036	Reject the null hypothesis.
4	The distribution of Q2 is the same across categories of Q10.	Independent-Samples Kruskal- Wallis Test	.034	Reject the null hypothesis.
5	The medians of Q3 are the same across categories of Q10.	Independent-Samples Median Test	.093	Retain the null hypothesis.
6	The distribution of Q3 is the same across categories of Q10.	Independent-Samples Kruskal- Wallis Test	.466	Retain the null hypothesis.

Note: Asymptotic significances are displayed. The significance level is 0.05.

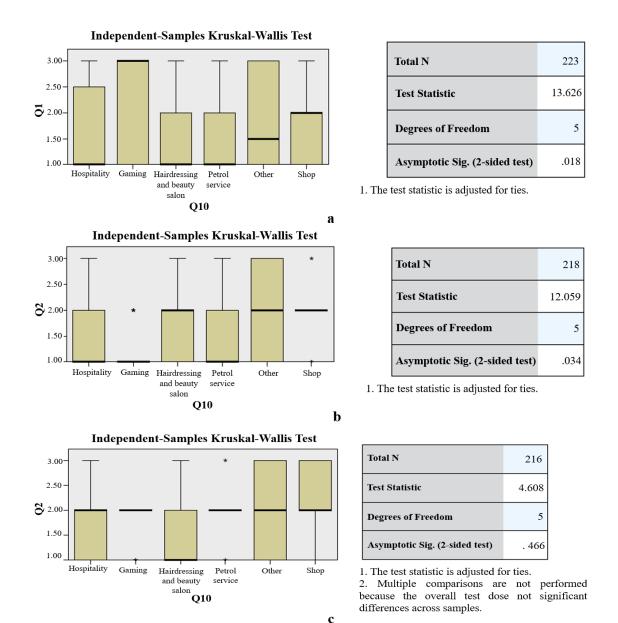


Figure 3. Independent-samples Kruskal-Wallis test (q1)

Additionally, the statistical significance of the differences between each pair of groups can be observed with the subsequent test (post hoc tests). Using a type of service company as an independent variable, it could be observed statistically significant differences for the tipping collection among pairs of service companies such as hospitality and gaming; with no significant differences regarding other pairs of groups. Regarding tipping regulation, significant differences are observed among gaming and other types of service companies; there are no significant differences among the rest of all service companies. No statistically significant differences were found among pairs of groups in observed types of service companies concerning tipping distribution.

The following figures present the results of the application of the independent-samples Kruskal-Wallis test, according to the above-mentioned methodological explanation regarding the satisfaction of the assumptions for the application of the ANOVA method.

The Kruskal-Wallis test indicates that there is no significant difference in the tipping distribution (q3) across the type of service companies (q10), with $\chi 2$ (5, N=216)=4.68, p=0.466. But, in case of other dependent variables, the Kruskal-Wallis test confirms significant difference in tipping collection (q1) across the type of service companies (q10) with $\chi 2$ (5, N=223)=13.626, p=0.018 and tipping regulation (q2) across the type of service companies (q10) with $\chi 2$ (5, N=218)=12,059, p=0.034.

Based on the application of the ANOVA method and the Kruskal-Wallis test, the following can be concluded.

• H1Q1: The hypothesis was confirmed with significant differences in tipping collection between service companies, and the assumptions of ANOVA were met.

- H1Q2: The hypothesis was confirmed with significant differences in tipping regulation between service companies, but the assumption of homogeneity of variances was not fully met.
- H1Q3: The hypothesis was not confirmed for tipping distribution, as no significant differences were found, and the assumption of homogeneity of variances was not met.

H1: The methods of collecting, regulating and distributing tips vary between types of service companies, which was partially confirmed.

To test hypothesis *H*2, Welch's ANOVA, eta square, and Tukey HSD post hoc test (Table 11, Table 12, Table 13, and Table 14) were used.

Welch's ANOVA shows that significant differences between means of all dependent variables (tipping collection, regulation, and distribution) exist within examined groups regarding the country as an independent variable, which means that there are significant differences concerning tipping collection, regulation, and distribution among observed countries. The value of the eta square is presented in the next table.

Regarding this measure, it could be noted that the country as an independent variable has a high influence concerning tipping regulation and has a moderate influence on tipping collection and tipping distribution. The post hoc test shows statistically significant differences in a subset of data regarding the type of countries.

Table 11. Collection, regulation, and distribution of tips among countries

	ANOVA		•	•		•
		Sum of Squares	df	Mean Square	F	Sig.
O1. Do vou allow vous assulovous to	Between groups	19.956	3	6.652	9.167	0.000
Q1: Do you allow your employees to collect tips?	Within groups	177.787	245	0.726		
	Total	197.743	248			
02. D 1	Between groups	22.682	3	7.561	17.890	0.000
Q2: Do you have a regulated system of	Within groups	96.777	229	0.423		
collecting and sharing tips?	Total	119.459	232			
Q3: In addition to the employees who	Between groups	9.521	3	3.174	5.707	0.001
create tips, are other workers also entitled	Within groups	126.785	228	0.556		
to tipping?	Total	136.306	231			

Table 12. Robust tests of equality of means

Robust Tests of Equality of Means						
		Statistica	df1	df2	Sig.	
Q1	Welch	9.568	3	90.584	0.000	
Q2	Welch	16.868	3	73.183	0.000	
Q3	Welch	4.308	3	67.703	0.008	

Note: a. Asymptotically F distributed.

Table 13. Eta square

	Measures of Association	
	Eta	Eta Squared
Q1 * Country	0.318	0.101
Q2 * Country	0.436	0.190
Q3 * Country	0.264	0.070

Table 14. Post hoc test

		Multiple (Comparison	IS		
Dependent Variable		Mean Difference	Std. Error	Sig.	95% Confidence Interval Lower Bound Upper Boun	
	Q1: E	(I-J) Oo you allow your	employees	to collect ti		
	Montenegro	.444*	0.133	0.005	0.1	0.79
GI .	Croatia	.684*	0.146	0	0.31	1.06
Slovenia	Bosnia and Herzegovina	.544*	0.189	0.022	0.06	1.03
	Slovenia	444*	0.133	0.005	-0.79	-0.1
M	Croatia	0.24	0.16	0.437	-0.17	0.65
Montenegro	Bosnia and Herzegovina	0.1	0.2	0.959	-0.42	0.62

	Slovenia	684*	0.146	0	-1.06	-0.31
Croatia	Montenegro	-0.24	0.16	0.437	-0.65	0.17
Croana	Bosnia and	-0.14 a	0.209	0.908	-0.68	0.4
	Herzegovina					
Bosnia and	Slovenia	544*	0.189	0.022	-1.03	-0.06
	Montenegro	-0.1	0.2	0.959	-0.62	0.42
Herzegovina	Croatia	0.14	0.209	0.908	-0.4	0.68
	Q2: Do you hav	e a regulated sy	stem of colle	cting and sha	aring tips?	
	Montenegro	735*	0.102	0	-1	-0.47
Slovenia	Croatia	-0.274	0.12	0.103	-0.58	0.04
Sioveilla	Bosnia and	498*	0.155	0.008	-0.9	-0.1
	Herzegovina					
	Slovenia	.735*	0.102	0	0.47	1
Mantanaana	Croatia	.461*	0.13	0.003	0.13	0.8
Montenegro	Bosnia and	0.237	0.163	0.469	-0.19	0.66
	Herzegovina					
	Slovenia	0.274	0.12	0.103	-0.04	0.58
Croatia	Montenegro	461*	0.13	0.003	-0.8	-0.13
Croana	Bosnia and	-0.224	0.174	0.573	-0.68	0.23
	Herzegovina	-0.224				
Bosnia and	Slovenia	.498*	0.155	0.008	0.1	0.9
Herzegovina	Montenegro	-0.237	0.163	0.469	-0.66	0.19
nerzegovina	Croatia	0.224	0.174	0.573	-0.23	0.68
	Cioana	V.22 :				
	addition to the emplo	yees who create	tips, are otl		also entitled to ti	ipping?
			e tips, are oth 0.118	ner workers a 0.024	also entitled to ti -0.64	ipping? -0.03
Q3: In	addition to the emplo Montenegro Croatia	yees who create				
	addition to the emplo Montenegro	337* 0.176	0.118 0.136	0.024 0.568	-0.64 -0.18	-0.03 0.53
Q3: In	addition to the emplo Montenegro Croatia	oyees who create 337*	0.118	0.024	-0.64	-0.03
Q3: In	Addition to the emplo Montenegro Croatia Bosnia and Herzegovina Slovenia	337* 0.176 0.248 .337*	0.118 0.136	0.024 0.568 0.507 0.024	-0.64 -0.18	-0.03 0.53 0.71 0.64
Q3: In Slovenia	Addition to the emplo Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia	337* 0.176 0.248	0.118 0.136 0.178	0.024 0.568 0.507	-0.64 -0.18 -0.21	-0.03 0.53 0.71
Q3: In	Addition to the emplo Montenegro Croatia Bosnia and Herzegovina Slovenia	337* 0.176 0.248 .337* .513*	0.118 0.136 0.178 0.118 0.148	0.024 0.568 0.507 0.024 0.003	-0.64 -0.18 -0.21 0.03 0.13	-0.03 0.53 0.71 0.64 0.9
Q3: In Slovenia	Addition to the emplo Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia	337* 0.176 0.248 .337*	0.118 0.136 0.178 0.118	0.024 0.568 0.507 0.024	-0.64 -0.18 -0.21 0.03	-0.03 0.53 0.71 0.64
Q3: In Slovenia	Addition to the emplo Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and	337* 0.176 0.248 .337* .513*	0.118 0.136 0.178 0.118 0.148	0.024 0.568 0.507 0.024 0.003	-0.64 -0.18 -0.21 0.03 0.13	-0.03 0.53 0.71 0.64 0.9
Q3: In Slovenia Montenegro	Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and Herzegovina	337* 0.176 0.248 .337* .513* .585*	0.118 0.136 0.178 0.118 0.148 0.188	0.024 0.568 0.507 0.024 0.003 0.011	-0.64 -0.18 -0.21 0.03 0.13	-0.03 0.53 0.71 0.64 0.9 1.07
Q3: In Slovenia	Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and Herzegovina	337* 0.176 0.248 .337* .513* .585* -0.176 513*	0.118 0.136 0.178 0.118 0.148 0.188 0.136 0.148	0.024 0.568 0.507 0.024 0.003 0.011 0.568 0.003	-0.64 -0.18 -0.21 0.03 0.13 0.1 -0.53 -0.9	-0.03 0.53 0.71 0.64 0.9 1.07 0.18 -0.13
Q3: In Slovenia Montenegro	Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and Herzegovina Slovenia Montenegro	337* 0.176 0.248 .337* .513* .585* -0.176	0.118 0.136 0.178 0.118 0.148 0.188 0.136	0.024 0.568 0.507 0.024 0.003 0.011 0.568	-0.64 -0.18 -0.21 0.03 0.13 0.1 -0.53	-0.03 0.53 0.71 0.64 0.9 1.07
Q3: In Slovenia Montenegro Croatia	Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and Herzegovina Slovenia Abornia Abornia Bosnia and Herzegovina Slovenia Montenegro Bosnia and	337* 0.176 0.248 .337* .513* .585* -0.176 513* 0.071 -0.248	0.118 0.136 0.178 0.118 0.148 0.188 0.136 0.148	0.024 0.568 0.507 0.024 0.003 0.011 0.568 0.003	-0.64 -0.18 -0.21 0.03 0.13 0.1 -0.53 -0.9	-0.03 0.53 0.71 0.64 0.9 1.07 0.18 -0.13 0.59 0.21
Q3: In Slovenia Montenegro	Addition to the emplot Montenegro Croatia Bosnia and Herzegovina Slovenia Croatia Bosnia and Herzegovina Slovenia Montenegro Bosnia and Herzegovina	337* 0.176 0.248 .337* .513* .585* -0.176 513* 0.071	0.118 0.136 0.178 0.118 0.148 0.188 0.136 0.148 0.199	0.024 0.568 0.507 0.024 0.003 0.011 0.568 0.003 0.984	-0.64 -0.18 -0.21 0.03 0.13 0.1 -0.53 -0.9	-0.03 0.53 0.71 0.64 0.9 1.07 0.18 -0.13

Note: * indicates that the mean difference is significant at the 0.05 level.

Additionally, the statistical significance of the differences between each pair of groups can be observed with the subsequent test (post hoc tests), which is shown in Table 14.

Using countries as independent variables, statistically significant differences could be observed for the tipping collection among pairs of countries, such as Slovenia and Montenegro, Slovenia and Croatia, as well as Slovenia and Bosnia and Herzegovina, with no significant differences regarding other pairs of groups. Concerning tipping regulation, significant differences are observed among pairs of countries, such as Slovenia and Montenegro, Slovenia and Bosnia and Herzegovina, as well as Montenegro and Croatia; there are no significant differences among the rest of all pairs of countries.

Regarding tipping distribution, there is a significant difference among pairs of countries, such as Slovenia and Montenegro, Montenegro and Croatia, as well as Montenegro and Bosnia and Herzegovina; there are no significant differences among the rest of all pairs of countries.

The test conclusions are as follows:

- \bullet H2Q1: Welch's ANOVA result for Q1 is significant (p < 0.001), indicating that there are significant differences in the means of Q1 across the groups.
- \bullet H2Q2: Welch's ANOVA result for Q2 is also significant (p < 0.001), suggesting significant differences in the means of Q2 across the groups.
- H2Q3: Welch's ANOVA result for Q3 is significant (p = 0.008), indicating significant differences in the means of Q3 across the groups.

The results of Welch's ANOVA show that there are statistically significant differences in the means of Q1, Q2, and Q3 across the groups. This confirms that the differences observed in the tipping practices (collection, regulation, and distribution) among the countries are not due to random chance.

H2: How tips are collected, regulated and distributed differently between countries, which was partially confirmed.

5. Discussion

The variation in the practice and regulation of tipping collection across boarding houses, restaurants and bars illustrates the archetypal structure and antithesis associated with each business sector. For instance, the hotel and casino industries have already developed active work of such services, which correlates with the enormous differences obtained in the ANOVA analysis for Q1 and Q2 (Tip Top Jar, 2023; Warren & Hanson, 2023). The relatively weak impact on the bias affecting many companies' types on the tipping collection and regulation, as shown by the eta squared indices, also lends credence to the view that this is truly a sectorial problem. The negligible influence on tipping distribution indicates that once the tips are received, the means of distributing them differ little from one industry to another because of the ubiquity of organizational norms or policies and legal requirements (Tip Top Jar, 2023; Warren & Hanson, 2023). Observing the analysis in Table 11, it can be seen that there are variations in practices regarding tipping in different countries. More particularly, the ANOVA results illustrate how the countries vary depending on whether the employees are allowed to request tips, whether there are systematic methods of gathering and disbursing the tips and if other employees are eligible for tips. Even Welch's ANOVA elaborates on such differences, emphasizing that the country affects the tipping practices.

As for other studies of tipping just the same way as the findings above, trends of replication were found. For example, in the USA, tips form an integral part of the earnings for people working in the service sector, including nearly every worker (Goodall, 2022). This is not the case in most countries in Europe, where customers pay for gratuities as part of their bills, thereby minimizing the practice of tipping. Tipping practices vary across various cultures and countries, and in appropriating the practice in many cultures has detrimental consequences (Pek, 2022). Some countries like Japan do not embrace the idea of tipping, and in fact, it is viewed as undesirable behaviour despite the tilting culture depending on where one sits at the table (Goodall, 2022).

The eta squared values in Table 13 allow one to conclude that a country has a comparatively strong influence on regulating tips and a local moderate one on the collection/distribution of tips. This is in harmony with the assertions obtained from other studies that culture as well as the law and order restructuring (Alex, 2023). The post hoc test results in Table 14 show specific differences between countries. For instance, Slovenia and Montenegro have significant differences in their tipping habits, which might stem from different cultural views on tipping and varying rules and regulations.

To sum up, these results highlight how crucial it is to think about cultural and regulatory backgrounds when looking at tipping habits. Each country has come up with its system based on its cultural norms and economic needs, which leads to big differences in how people collect, regulate, and share tips.

6. Conclusions

The study of tipping practices and policies across the hospitality industry in the Western Balkans reveals a complex and varied landscape shaped by cultural, economic, and regional factors. Key findings indicate significant differences in tipping collection and regulation across different types of service companies while tipping distribution tends to follow more consistent patterns. This diversity highlights the existence of distinct tipping cultures across the region, influenced by both local traditions and the varying levels of legal frameworks governing the practice. One of the central findings is the lack of uniform legal regulations across the region, leading to inconsistencies in how tips are collected, reported, and distributed. This absence of clear guidelines creates the potential for unfair practices and exploitation, as service workers may not always receive their fair share of tips. The study shows that while some countries, like Slovenia and Croatia, have more developed frameworks, others rely heavily on informal practices, resulting in significant variations in how tipping is managed.

Furthermore, the research underscores the impact of tourism on tipping practices. In areas with high tourist traffic, tipping tends to be more standardized and generous, reflecting international norms. However, this creates disparities between tourist-heavy regions and those that rely more on local clientele, leading to potential economic instability for service workers in less tourist-dependent areas. The findings of this study contribute to existing knowledge by providing a detailed comparison of tipping practices across different countries and types of service companies in the Western Balkans. They highlight the need for policymakers to address these variations by developing more comprehensive and uniform regulations that ensure fair and transparent tipping practices across the region. By doing so, they can promote a more equitable environment for service workers and contribute to the stability and sustainability of the hospitality industry in these countries.

In summary, this study not only sheds light on the diverse tipping cultures within the Western Balkans but also emphasizes the importance of legal and regulatory frameworks in shaping fair practices. The insights gained from this study offer valuable guidance for policymakers and industry stakeholders aiming to improve the working conditions of service employees and enhance the overall effectiveness of tipping systems in the hospitality sector. This study has some limitations, as the research is limited to the small number of service companies that responded to the survey.

7. Practical Implications and Policy Recommendations

The findings from this study on tipping practices and policies in the hospitality industry across the Western Balkans have several practical implications that could significantly influence policy-making in each country discussed. Addressing the variations in tipping practices, the lack of uniform regulations, and the differences in distribution methods can lead to more equitable and transparent systems that benefit both employees and employers in the hospitality sector.

It has been established that there is a lack of standardization of tipping regulations. There are large differences in tipping regulations in countries such as Slovenia, Montenegro, Croatia and Bosnia and Herzegovina, pointing to the need for standardized policies. Policymakers in these countries should consider developing comprehensive legal frameworks that clearly define the collection, reporting and distribution of advice. Establishing clear legal requirements for how tips should be handled and distributed, ensuring that all service workers receive a fair share. It would also be desirable to promote uniform tipping practices across regions and types of service establishments to reduce confusion and ensure consistency. This would establish transparency and fairness in tip distribution.

Employers should be required to track and report all tips collected, ensuring that employees can verify the amount they are entitled to. Policies should encourage fair distribution methods such as pooling and fair sharing among all staff members, including company employees who often receive fewer tips. Educating employees about their tipping rights can empower them to advocate for fair treatment.

Data Availability

The data used to support the research findings are available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflict of interest.

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