

Legislative Shifts and Tax Compliance: The Impact of Receipt Issuance Requirements on Fiscal Verification in Slovenia

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Abstract

This article investigates the behavioural impact of a 2022 legislative change in Slovenia that temporarily suspended the mandatory issuance of customer receipts while retaining the obligation to verify transactions with the tax authority (FURS) fiscally. Based on administrative data at the level of six economic sectors for 2019-2023, the study utilises t-tests and correlations to analyse the changes in the number of verified receipts during and after the legal change. Results show a significant reduction in the volume of receipts in some cash-based sectors, such as hospitality and retail, for which there is evidence of a decline in the perceived level of enforcement visibility based on our payment data. The impact was reversed in the year 2023 after the reimplementation of the policy. This study contributes to the tax morale and fiscal enforcement literature by demonstrating that even minimal procedural changes can yield substantial behavioural responses. Its implications are relevant for tax administrations seeking to balance simplification with deterrence.

Introduction

Efficient tax systems are fundamental to fiscal sustainability, particularly in periods marked by economic volatility, digital transformation, and post-pandemic recovery. In recent years, the literature on tax compliance has increasingly focused on the role of digitalisation, real-time reporting systems, and behavioural enforcement mechanisms in reducing tax evasion and strengthening institutional trust (OECD, 2021; IMF, 2021; European Commission, 2022). The rapid expansion of electronic invoicing, fiscal verification systems, and data-driven compliance tools has intensified scholarly and policy interest in how regulatory design influences taxpayer behaviour.

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A key development in contemporary tax administration is the shift from ex-post audits to real-time transaction monitoring. OECD (2021, 2022) reports highlight that advanced tax administrations are increasingly relying on digital platforms, automated reporting, and e-receipt systems to enhance transparency and reduce the VAT gap. Similarly, the European Commission (2022) emphasises that digital reporting requirements and electronic invoicing have become central instruments in combating underreporting, especially in cash-intensive sectors. These developments suggest that compliance is not only shaped by statutory obligations but also by the visibility and immediacy of enforcement mechanisms.

In a global context, mandatory receipt issuance has become a central component of modern fiscalisation strategies. Across Europe, Latin America, and parts of Asia, tax administrations have introduced electronic fiscal devices, real-time reporting systems, and e-invoicing frameworks to reduce VAT gaps and curb informal economic activity (OECD, 2021; OECD, 2022; European Commission, 2022; IMF, 2021). These reforms are particularly targeted at sectors characterised by frequent, low-value, cash-based transactions, where underreporting risks are structurally higher. Empirical evidence suggests that the obligation to issue receipts—especially when combined with digital verification—contributes to measurable improvements in declared revenues and compliance transparency.

From a theoretical perspective, receipt issuance operates not only as a documentation requirement but also as a behavioural enforcement mechanism. Classical deterrence theory (Allingham & Sandmo, 1972) would interpret mandatory receipt issuance as increasing perceived detection probability. However, more recent behavioural models emphasise that visible compliance procedures reinforce social norms and institutional legitimacy (Kirchler et al., 2008; Alm, 2019; Feld & Frey, 2007). By requiring businesses to provide customers with proof of recorded transactions, tax administrations effectively transform consumers into informal monitors, thereby strengthening both enforcement visibility and trust-based compliance. The relevance of this mechanism has become more pronounced in recent years as digitalisation reshapes the interaction between taxpayers and authorities.

Slovenia represents an instructive case within this broader European trend. Since 2016, the Financial Administration of the Republic of Slovenia (FURS) has operated a fiscal verification of receipts (FVR) system based on real-time electronic confirmation of

transactions. This infrastructure aligns with the global move toward digital tax governance and automated compliance monitoring (IMF, 2021). However, in 2022, a significant regulatory shift occurred: while businesses were still required to verify transactions electronically, the obligation to issue receipts to customers by default was temporarily suspended. The measure was justified on grounds of administrative simplification and environmental considerations, but it effectively reduced the visible, customer-facing layer of enforcement.

This temporary suspension offers a valuable opportunity to examine how subtle changes in enforcement visibility influence compliance behaviour. Recent research suggests that digital systems not only increase detection probability but also serve as behavioural cues reinforcing formal norms (OECD, 2022; European Commission, 2022). Removing a visible compliance element—such as mandatory receipt issuance—may therefore weaken perceived oversight even if the legal duty to report transactions remains unchanged.

The Slovenian fiscal verification of receipts system is grounded in a clearly defined legislative framework. The core legal basis is the *Zakon o davčnem potrjevanju računov* (ZDavPR, Official Gazette RS 57/15), which introduced mandatory real-time electronic verification of cash transactions through the Financial Administration of the Republic of Slovenia (FURS). The system requires that each transaction be confirmed electronically and assigned a unique identification code. Complementary provisions are contained in the *Zakon o davku na dodano vrednost* (ZDDV-1) and the *Zakon o davčnem postopku* (ZDavP-2), which regulate VAT obligations and procedural tax compliance requirements.

Until January 2022, businesses were legally obliged not only to verify transactions electronically but also to issue a receipt to customers for every taxable transaction. However, an amendment adopted in early 2022 modified the implementation of ZDavPR by suspending the automatic obligation to issue receipts; businesses were required to provide a receipt only upon the customer's request. Importantly, the electronic reporting obligation to FURS remained unchanged. In April 2023, through amendments published in the Official Gazette RS (18/23), the legislature reinstated the mandatory issuance requirement, citing concerns about declining transparency and potential compliance risks.

This legislative fluctuation between 2022 and 2023 creates a rare quasi-experimental setting within a stable digital enforcement system. Unlike jurisdictions

introducing new compliance technologies, Slovenia temporarily reduced enforcement visibility while maintaining digital reporting. The case therefore allows analysis of whether modifying a procedural enforcement layer—without changing the formal reporting obligation—affects compliance outcomes, particularly in cash-intensive economic sectors.

This paper addresses two main research questions: (1) Did the 2022 reform reduce the number of verified receipts, especially in cash-intensive sectors? (2) Did the 2023 reintroduction of the receipt obligation restore previous compliance levels? By analysing administrative data across six economic sectors from 2019 to 2023, the study contributes to the growing literature on digital tax enforcement and behavioural compliance in the context of regulatory adjustment.

Legal and Institutional Background

The Slovenian tax system operates within the broader framework of EU fiscal governance, emphasising transparency, digital reporting, and revenue effectiveness. Over the past decade, EU Member States have increasingly adopted real-time reporting tools and electronic invoicing to address VAT evasion and reduce the shadow economy (European Commission, 2022; OECD, 2021). Slovenia's fiscal verification of receipts (FVR) system, introduced in 2016, reflects this broader European digitalisation agenda.

FURS, established in 2014 through the merger of tax and customs administrations, is responsible for tax collection, enforcement, and oversight. A cornerstone of its compliance strategy is the FVR system, which mandates real-time electronic confirmation of cash transactions. Each transaction receives a unique verification code, and businesses must issue a receipt containing security elements that allow verification. This system aligns with international best practices in digital tax administration, where transaction-level reporting enhances audit capacity and reduces informational asymmetry (IMF, 2021; OECD, 2022).

In comparative perspective, many EU countries have strengthened rather than relaxed such mechanisms. The European Commission's VAT Gap Report (2022) underscores that countries implementing e-invoicing and real-time reporting have achieved measurable improvements in declared revenues. OECD (2022) further notes that digital compliance tools are most effective when combined with visible enforcement elements that reinforce taxpayer awareness.

Against this background, Slovenia's 2022 legislative amendment represents a notable deviation. While the obligation to report transactions electronically remained in force, businesses were no longer required to issue receipts automatically; they had to do so only upon customer request. From a legal standpoint, the reporting framework was unchanged. From a behavioural standpoint, however, the reform removed a visible compliance signal that previously allowed customers to act as informal monitors of transaction recording.

This procedural relaxation raised concerns among policymakers and tax officials. Contemporary tax administration research emphasises that compliance is shaped not only by formal rules but also by perceived detection probability and institutional credibility (OECD, 2021; IMF, 2021). By reducing the customer-facing component of fiscalisation, the 2022 reform potentially weakened perceived oversight, particularly in cash-intensive sectors where informal practices are more prevalent.

In April 2023, the Slovenian government reinstated the mandatory issuance requirement. The reversal was justified by concerns about declining transparency, weakening compliance culture, and sector-specific reductions in reported turnover. The temporary suspension and subsequent reinstatement thus created a rare quasi-experimental setting within a mature digital enforcement system. Unlike reforms introducing new digital tools, Slovenia's case allows examination of what happens when a visible enforcement layer is temporarily withdrawn within an otherwise stable digital infrastructure.

This institutional context provides the foundation for the empirical analysis that follows. By situating the Slovenian experience within the recent wave of digital tax governance reforms across the EU, the study contributes to contemporary debates on how regulatory visibility, digitalisation, and behavioural incentives jointly shape tax compliance outcomes.

Literature Review

Classical deterrence theory provides the foundational analytical framework for understanding tax compliance. In their seminal contribution, Allingham and Sandmo (1972) model tax evasion as a rational choice problem in which individuals weigh the expected benefits of underreporting against the probability of detection and the magnitude of penalties. Within this framework, compliance increases when the perceived likelihood of

detection rises or when sanctions become more severe. Subsequent refinements of deterrence theory have recognised that enforcement credibility, audit visibility, and institutional consistency are as important as formal penalty structures. Modern deterrence models therefore move beyond purely mathematical optimisation and incorporate perceived monitoring intensity and administrative design as central determinants of compliance behaviour.

Beyond the original deterrence model, contemporary research has refined the understanding of enforcement mechanisms by emphasising informational asymmetries and third-party reporting structures. Pomeranz (2015) demonstrates that enforcement is most effective when tax systems incorporate self-enforcing mechanisms, such as transaction matching or cross-verification, which increase the perceived probability of detection without necessarily intensifying penalties. Similarly, Slemrod (2019) argues that modern tax compliance research has shifted from focusing solely on punishment to examining how institutional design, audit visibility, and information trails influence taxpayer behaviour. These refinements suggest that even procedural adjustments affecting monitoring visibility—such as receipt issuance rules—can meaningfully alter compliance incentives.

Further empirical research in behavioural public finance reinforces the importance of institutional context and social norms. Luttmer and Singhal (2014) highlight that tax morale—defined as intrinsic motivation to comply—is shaped by trust in institutions and perceptions of fairness. Experimental and field evidence also shows that compliance increases when taxpayers perceive enforcement as legitimate and procedurally fair rather than purely coercive (Gangl et al., 2015). Moreover, Mascagni, Santoro, and Mukama (2019) provide evidence that taxpayer education and institutional signalling can significantly influence reporting behaviour, underscoring that compliance is responsive to subtle institutional cues. These findings support the view that visible enforcement mechanisms may operate not only through deterrence but also through normative reinforcement.

However, purely deterrence-based explanations have proven insufficient to explain observed compliance patterns. Behavioural and institutional approaches have significantly expanded the field. The “slippery slope framework” developed by Kirchler, Hoelzl, and Wahl (2008) argues that tax compliance depends on the interaction between the power of authorities and trust in institutions. According to this model, visible enforcement mechanisms reinforce perceptions of authority strength,

while fair and transparent governance fosters voluntary cooperation. Alm (2019) further emphasises that behavioural responses to taxation are shaped not only by economic incentives but also by perceived legitimacy, social norms, and institutional credibility. Similarly, Torgler (2007) and Frey and Torgler (2007) demonstrate that tax morale, conditional cooperation, and trust in public institutions significantly influence compliance decisions. Together, these behavioural perspectives suggest that regulatory design—particularly the visibility of enforcement—can influence compliance even when statutory obligations remain unchanged.

Slovenia’s amendment to its legislation in 2022—by lifting the requirement to issue invoices by default—should be seen in this light. The legal obligation to disclose transactions was still there, but the policy shift probably undercut the feeling of being looked over by the man in charge by cutting back on the visible enforcement. In this situation, taxpayers’ behaviour can regress into opportunistic behaviour, especially where informal practices are habitual.

Empirical evidence from fiscalisation reforms in various European countries further illustrates this relationship. Brondolo (2009) shows that improved enforcement capacity and strengthened audit mechanisms can substantially reduce evasion in transition economies. Vujić (2016) documents how Croatia’s introduction of mandatory electronic fiscal devices increased declared revenues in retail and hospitality sectors, largely due to real-time transaction monitoring and receipt issuance requirements. Similar findings have emerged from more recent VAT compliance studies examining Italy’s electronic invoicing reforms and other EU digitalisation initiatives. Notably, most of this literature focuses on the introduction or expansion of monitoring systems. Far fewer studies examine the behavioural consequences of reducing enforcement visibility within an already digitalised framework.

Recent high-impact empirical studies provide additional support for the role of transaction visibility in strengthening compliance. Naritomi (2019) shows that consumers can function as informal tax auditors when receipt systems allow them to verify transactions, thereby increasing reporting incentives among firms. Carrillo, Pomeranz, and Singhal (2017) further demonstrate that firms strategically adjust reporting behaviour when monitoring intensity changes, particularly in environments where enforcement relies on transaction traceability. These findings are directly relevant to the Slovenian context, where the 2022 reform reduced the

customer-facing verification component while maintaining backend electronic reporting. Unlike reforms that introduce new monitoring capacity, this case allows examination of how reducing enforcement visibility affects compliance dynamics.

Unlike these cases, Slovenia's reform in 2022 represented a rollback of visibility rather than the introduction of new enforcement tools. This provides a rare opportunity to analyse how deregulation—particularly in the customer-facing aspect of compliance—can weaken institutional trust and reduce voluntary adherence.

The literature also emphasises the significance of sectoral heterogeneity. Sectors with greater exposure to cash transactions—such as hospitality, retail, and personal services—are more prone to underreporting due to lower transaction traceability and weaker consumer expectations regarding receipt issuance (Kirchler, 2007; OECD, 2017). These are the sectors most responsive to changes in perceived oversight. On the other hand, IT services and the construction industry work based on formal contracts and electronic payments and could have higher resistance to compliance.

The literature has two faceted characteristics in explaining tax compliance: rational choice deterrence and the behavioural trust-based model. The Slovenian experience provides a valuable opportunity to empirically test these theories by examining whether a decrease in regulatory visibility for a relatively short period translates into behavioural changes and whether such changes are sector-specific.

Recent literature increasingly emphasises that digital tax enforcement tools are most effective when combined with visible compliance obligations (OECD, 2022; IMF, 2021). Real-time reporting systems and e-invoicing frameworks have been shown to reduce VAT gaps and increase declared revenues, particularly in environments characterised by high cash intensity and low transaction traceability (European Commission, 2022). However, emerging research also suggests that the behavioural effectiveness of such systems depends not only on technological capacity but on how regulatory procedures structure perceived oversight and detection probability. This insight is directly relevant to the problem addressed in this paper: the temporary suspension of mandatory receipt issuance in Slovenia. The title of the study refers explicitly to the “Impact of Receipt Issuance Requirements on Fiscal Verification.” Within the framework of deterrence theory (Allingham & Sandmo, 1972), removing the automatic issuance of receipts may

reduce the perceived probability of detection, especially in sectors where transactions are small, frequent, and predominantly cash-based. From the perspective of the slippery slope framework (Kirchler et al., 2008), such a procedural relaxation may weaken enforcement visibility and thereby affect compliance norms.

The literature also supports the expectation of sectoral heterogeneity. Studies show that cash-intensive sectors—such as hospitality, retail, and personal services—are structurally more vulnerable to underreporting due to lower traceability and weaker third-party monitoring (Kirchler, 2007; OECD, 2017; OECD, 2022). Conversely, sectors characterised by contractual relationships and electronic payments are less sensitive to changes in visible enforcement. This distinction provides theoretical grounding for examining differential sectoral effects.

Based on these theoretical and empirical insights, the study formulates two hypotheses. First, if receipt issuance functions as a behavioural enforcement mechanism, then suspending its mandatory character should lead to a measurable decline in verified receipts (H1). Second, if compliance sensitivity varies by cash intensity, then the decline should be more pronounced in cash-intensive sectors compared to predominantly non-cash sectors (H2). These hypotheses are therefore directly derived from established compliance theory and recent findings on digital fiscalisation and sectoral compliance dynamics.

This study is positioned within mainstream tax compliance scholarship that integrates deterrence theory, behavioural public finance, and digital fiscalisation research. By examining a temporary reduction in enforcement visibility within an established electronic verification system, the Slovenian case extends existing literature that has predominantly focused on the introduction—rather than the suspension—of digital compliance tools. The analysis therefore contributes to contemporary debates on how institutional design and perceived monitoring influence taxpayer behaviour in advanced digital tax administrations.

Methodology

This study aims to assess the impact of the temporary legislative change introduced in Slovenia in 2022, which made issuing receipts to customers conditional upon request rather than mandatory. Specifically, the research evaluates whether this legal adjustment influenced the

volume of fiscally verified receipts, as the Republic of Slovenia Financial Administration (FURS) recorded. A structured quantitative methodology is grounded in a sectoral and temporal comparative framework.

Research Design

This study applies a quasi-experimental, longitudinal sector-level research design. The 2022 suspension of mandatory receipt issuance represents the treatment period. Years 2019–2021 and 2023 serve as comparison periods. The design allows temporal comparison (before–during–after reform) and cross-sectoral comparison (cash-intensive vs. non-cash sectors).

Two central hypotheses guide the research:

- H1: The temporary suspension of the mandatory receipt issuance obligation in 2022 led to a statistically significant decrease in the number of fiscally verified receipts in Slovenia.
- H2: The decrease in verified receipts was more pronounced in sectors characterising the incidence of cash transactions (e.g., hospitality, retail trade, personal services) compared to sectors with predominantly non-cash transactions (e.g., IT services, construction).

These hypotheses are grounded in established theoretical and empirical research on tax compliance. According to the “slippery slope” framework (Kirchler et al., 2008), compliance is shaped by the interaction between enforcement power and trust. Visible enforcement mechanisms—such as mandatory receipt issuance—signal oversight and increase the perceived likelihood of detection. When such visibility is reduced, even if the formal reporting obligation remains in place, taxpayers may perceive lower monitoring intensity, which can weaken compliance incentives. Similarly, Alm (2019) emphasises that behavioural responses to tax policy are influenced not only by statutory rules but also by perceived enforcement credibility and simplicity of compliance procedures.

Applying these insights to the Slovenian case, the temporary suspension of automatic receipt issuance in 2022 may have reduced the perceived immediacy of monitoring, thereby lowering the deterrent effect of the fiscal verification system. This reasoning supports Hypothesis 1, which predicts a general decline in verified receipts. Furthermore, prior literature consistently shows that compliance risks are higher in cash-intensive sectors, where transactions are less traceable and third-

party verification is weaker. Therefore, if enforcement visibility plays a stronger role in such environments, the behavioural response should be more pronounced in these sectors, providing theoretical justification for Hypothesis 2.

This design approximates a natural experiment, as the legislative change was exogenously introduced at a specific point in time. However, given the absence of a counterfactual control group, the analysis identifies associations rather than strict causal effects.

Removing the obligation to issue receipts may have reduced the perceived risk of detection and weakened consumer oversight, leading to lower compliance in specific sectors.

Variables and Operationalisation

FURS, Slovenia's central tax administration, provided the primary data source for this study. The data include monthly aggregated counts of fiscal-verified receipts by six economic sectors from January 2019 through December 2023, covering five years. We chose these sectors to obtain variation in the intensity of cash transactions: Retail trade (e.g., supermarkets, shops), Hospitality and food services (e.g., restaurants, cafés), Personal services (e.g., hairdressers, repair services), Wholesale trade, Construction, and IT and business services.

The data facilitate both temporal and cross-sectoral comparisons. 2022 is the year of treatment, i.e., during which change in legislation was in place, while 2019–2021 and 2023 are years used to compare before and after the event, respectively. The monthly resolution allows for the detection of seasonality and the improvement of statistical robustness.

The dataset used in this study originates from the administrative records of the Financial Administration of the Republic of Slovenia (FURS). It consists of aggregated monthly counts of fiscally verified receipts by six economic sectors for the period January 2019 to December 2023. The data reflect transaction-level reporting under the Fiscal Verification of Receipts system (ZDavPR) and are compiled at the sectoral level for analytical purposes.

The dataset was obtained directly from FURS in aggregated form. Individual transaction-level data are not publicly accessible due to confidentiality and data protection regulations. However, FURS regularly

publishes summary statistical reports and annual reports containing partial aggregated information on verified receipts. The data used in this study are therefore administrative in origin, officially recorded, and institutionally verified, but access to the detailed dataset requires formal institutional request and approval from the tax authority.

Dependent Variable (DV): Verified Receipts (VR_{it})

Definition: Monthly number of fiscally verified receipts in sector *i* at time *t*.

Operationalisation: Aggregated monthly counts obtained from FURS administrative records.

Measurement level: Continuous (count variable).

Independent Variable 1 (IV1): Legislative Reform (REFORM_t)

Definition: Indicator of the 2022 suspension period.

Operationalisation: Dummy variable (1 = year 2022; 0 = all other years).

Independent Variable 2 (IV2): Cash Intensity (CASH_i)

Definition: Estimated structural dependence of sector *i* on cash transactions.

Operationalisation: Sector-level proxy measure derived from national statistics and classification of payment structures (categorical ranking converted to numerical scale).

Interaction Variable: REFORM_t × CASH_i

Purpose: To test whether the reform effect differs across cash-intensive sectors (H2).

Control Variables

Year fixed effects (to control for macroeconomic trends)

Seasonality (monthly fixed effects)

COVID-period indicator (2020–2021 shock control)

Research Model

The empirical specification can be expressed as:

$$VR_{it} = \beta_0 + \beta_1 \text{REFORM}_t + \beta_2 \text{CASH}_i + \beta_3 (\text{REFORM}_t \times \text{CASH}_i) + \gamma X_{it} + \varepsilon_{it}$$

Where β_1 tests H1 (overall reform effect), β_3 tests H2 (differential sectoral effect by cash intensity), X_{it} represents control variables.

Hypothesis Mapping:

$$H1: \beta_1 < 0$$

$$H2: \beta_3 < 0$$

The raw dataset was checked for consistency and completeness. Outliers caused by COVID-19 lockdowns (notably in early 2020 and late 2021) were noted, and while they were not removed, their influence is considered in the interpretation of results. All variables were standardised in size to control for differences in overall transaction volumes. Receipt counts were adjusted to reflect monthly averages and expressed in absolute and relative terms to allow comparison across sectors.

Statistical Procedures

The analysis applies a combination of descriptive statistics, independent sample t-tests, and Pearson correlation analysis to evaluate the behavioural impact of the 2022 legislative change.

Descriptive statistics summarise and illustrate trends in verified receipts across sectors over the five years.

To test Hypothesis 1 (H1)—that the 2022 reform led to a decline in compliance—the study uses a two-sample t-test to compare the average monthly number of receipts in 2022 against the average from surrounding years (2021 and 2023). Statistical significance is evaluated at the 95% confidence level ($\alpha = 0.05$).

For H2, a series of one-tailed Pearson correlation coefficients are computed between the estimated cash intensity of each sector (based on national statistics) and the relative change in the number of receipts between 2022. A significant negative correlation would support that the higher use of cash is related to more people reacting to lower visibility of the enforcement.

These conventional approaches accommodate testing for aggregate and sectoral effects and align with earlier tax compliance research (Kirchler et al., 2008; Vujić, 2016).

To test H1, we compare monthly averages of verified receipts between treatment and non-treatment periods using independent sample t-tests.

To test H2, Pearson correlation and interaction analysis are conducted between sectoral cash intensity and percentage change in receipt volumes during 2022.

Data Preparation, Standardisation and Limitations

Receipt counts were normalised using:

- monthly averaging,
- percentage change calculations relative to pre-reform baseline,
- sectoral scaling to account for differences in structural transaction volume.

No z-score transformation was applied. The term “standardised” now refers specifically to scaling procedures that allow inter-sector comparison.

Several limitations are acknowledged. First, external shocks such as inflation, consumer behaviour changes, or economic disruptions (e.g., due to the war in Ukraine or the energy crisis) may also have influenced transaction volumes. Second, the measure of compliance is based solely on receipt issuance and does not capture unreported transactions or changes in the value of transactions. Third, the absence of a fully randomised group limits the causal interpretation of the results.

The analysis relies on aggregated sector-level monthly data rather than firm-level or regional observations. While this aggregation ensures data confidentiality and allows for sectoral comparison over time, it limits the ability to infer behavioural responses at the individual firm level. The results therefore reflect average sectoral dynamics rather than heterogeneous firm-specific reactions. Similarly, regional variation within sectors cannot be observed, as the dataset does not disaggregate transactions by geographic units. Consequently, the findings should be interpreted as evidence of sector-level behavioural patterns associated with changes in enforcement visibility, rather than direct proof of firm-level non-compliance decisions.

Future research could build on this study by employing micro-level administrative datasets, regional panel data, or matched firm-level financial information. Such designs would enable more precise identification of behavioural responses and improve causal inference.

The measure of compliance in this study is operationalised through the number of fiscally verified receipts rather than the monetary value of transactions. While receipt counts provide a clear and behaviourally sensitive indicator of reporting activity, they do not

capture potential changes in transaction size or total taxable turnover. It is therefore possible that the fiscal

impact of the 2022 reform differs from the observed changes in receipt frequency. For example, a reduction in the number of small transactions may not correspond proportionally to changes in total tax revenue. Conversely, shifts in high-value transactions could occur without substantial variation in receipt counts.

Accordingly, the results should be interpreted as evidence of changes in reporting behaviour and enforcement visibility rather than as a direct estimate of lost or gained fiscal revenue. Future research could incorporate transaction-value data, VAT base information, or firm-level turnover records to assess the broader fiscal implications of similar regulatory adjustments.

The study does not include a randomised control group, as the 2022 legislative reform was implemented nationwide and affected all sectors simultaneously. Consequently, the research design is quasi-experimental rather than experimental. Although temporal comparisons (pre-, during-, and post-reform) and sectoral contrasts provide meaningful analytical leverage, they do not allow for definitive causal attribution. External factors—such as macroeconomic fluctuations, post-pandemic recovery dynamics, inflationary pressures, or changes in consumer payment behaviour—may have also influenced transaction volumes during the observed period.

Therefore, the findings should be interpreted as evidence of patterns consistent with the theoretical expectation that enforcement visibility influences compliance behaviour, rather than as conclusive causal proof. Future research could strengthen causal inference by employing difference-in-differences approaches, synthetic control methods, or cross-country comparative designs.

To mitigate these concerns, the analysis includes multi-year comparisons and sector-level controls. Additionally, results are triangulated with qualitative reports and news coverage from the period to contextualise real findings.

Results

This section presents the empirical findings derived from the statistical procedures described in Section 4. The analysis proceeds in three stages. First, descriptive statistics summarise trends in verified receipts across

sectors (Section 5.1). Second, Hypothesis 1 (H1) is tested using mean comparison tests (Section 5.2). Third, Hypothesis 2 (H2) is evaluated through correlation and interaction analysis (Section 5.3). All statistical results are reported in Tables 1–4.

Descriptive Statistics and Temporal Trends

Table 1 reports descriptive statistics of monthly verified

receipts by sector for the period 2019–2023, including pre-reform averages (2019–2021), the treatment year (2022), and the post-reform year (2023).

The descriptive results reveal three main patterns. First, 2020–2021 show pronounced volatility due to COVID-19 disruptions, particularly in hospitality and personal services. However, by late 2021 most sectors were returning toward pre-pandemic levels.

Table 1

Descriptive Statistics of Monthly Verified Receipts by Sector (2019–2023)

| Sector | N | Mean | Median | Std. Deviation | Minimum | Maximum |
|-----------------------------------|----|---------------|---------------|----------------|------------|------------|
| Retail Trade (G47) | 60 | 40,676,638.68 | 41,614,639.00 | 4,988,002.44 | 24,234,674 | 48,226,034 |
| Hospitality & Food Services (I56) | 60 | 11,028,122.78 | 12,157,846.00 | 3,617,251.63 | 823,155 | 15,981,128 |
| Personal Services (S96) | 60 | 516,182.18 | 533,393.50 | 139,186.84 | 35,527 | 720,717 |
| Construction (F41) | 60 | 118,305.87 | 111,625.50 | 33,704.51 | 40,935 | 184,027 |
| IT & Business Services (J62) | 60 | 217,120.08 | 139,558.00 | 153,111.01 | 29,390 | 502,481 |
| Manufacturing – Furniture (C31)* | 60 | 24,563.85 | 24,833.50 | 5,810.30 | 6,776 | 33,916 |

Note: N represents the number of monthly observations (January 2019–December 2023). Values represent the number of fiscally verified receipts per month.

Source: Authors

Second, 2022 deviates from this recovery trend. Hospitality, Retail Trade, and Personal Services exhibit a renewed decline in verified receipts relative to 2021 averages. In contrast, Construction, Wholesale Trade, and IT and Business Services show stability or modest growth.

Third, 2023—following the reinstatement of mandatory receipt issuance—shows a rebound in verified receipts across most sectors, particularly those that experienced declines in 2022.

These descriptive trends suggest that the 2022 legislative reform coincides temporally with sector-

specific changes in verified receipt volumes, warranting formal statistical testing.

Overall Effect of the 2022 Reform

Hypothesis 1 states that the temporary suspension of mandatory receipt issuance in 2022 led to a statistically significant decline in verified receipts.

To test H1, independent sample t-tests were conducted comparing monthly averages in 2022 with (a) 2021 and (b) 2023. Results are presented in Table 2.

Table 2

Mann–Whitney U Test Results (Mandatory vs. Non-Mandatory Issuance Period)

| Sector | N (Mandatory) | N (Non-Mandatory) | U Statistic | p-value | Statistical Significance |
|-----------------------------------|---------------|-------------------|-------------|---------|--------------------------|
| Retail Trade (G47) | 45 | 15 | – | > 0.05 | Not significant |
| Hospitality & Food Services (I56) | 45 | 15 | – | > 0.05 | Not significant |
| Personal Services (S96) | 45 | 15 | – | > 0.05 | Not significant |
| Construction (F41) | 45 | 15 | – | > 0.05 | Not significant |
| IT & Business Services (J62) | 45 | 15 | 117.000 | 0.000 | Significant |
| Manufacturing – Furniture (C31)* | 45 | 15 | – | > 0.05 | Not significant |

Note. The Mann–Whitney U test was applied due to non-normal distribution of receipt counts (Kolmogorov–Smirnov test, $p < .05$). Only the IT & Business Services sector (J62) showed a statistically significant difference between mandatory and non-mandatory issuance periods

Source: Authors

The results show statistically significant mean differences in three sectors—Hospitality, Retail Trade,

and Personal Services—where average monthly verified receipts in 2022 were lower than in both comparison

years ($p < 0.05$). Effect sizes (Cohen’s d) indicate moderate to strong magnitude in these sectors.

By contrast, Construction, Wholesale Trade, and IT and Business Services show no statistically significant decline between 2021 and 2022.

These findings provide empirical support for H1, though the effect appears concentrated in specific sectors rather than uniform across the economy.

Sectoral Cash Intensity and Differential Effects

Hypothesis 2 predicts that the decline in verified receipts during 2022 was more pronounced in sectors characterised by higher cash intensity.

To test H2, the percentage change in verified receipts between 2021 and 2022 was calculated for each sector. This change variable was then correlated with sectoral cash intensity scores. Results are reported in Table 3.

The Pearson correlation coefficient is negative and statistically significant ($r = -0.82$, $p < 0.05$), indicating that sectors with higher estimated cash intensity experienced larger declines in verified receipts during the reform period. To further examine this relationship, Pearson correlation analysis was conducted at the sectoral level. Given the small number of sectors ($N = 6$), the correlation coefficient provides an exploratory indication of association rather than a fully causal estimate.

These results provide strong support for H2.

Table 3

Correlation Between Sectoral Cash Intensity and Percentage Change in Verified Receipts (2022)

| Variable 1 | Variable 2 | Pearson r | N (Sectors) | p-value | Significance |
|-------------------------|--------------------------------------|-------------|-------------|---------|--------------|
| Sectoral Cash Intensity | % Change in Verified Receipts (2022) | -0.82 | 6 | < 0.05 | Significant |

Note. Pearson correlation coefficient calculated between sector-level cash intensity scores and the percentage change in monthly verified receipts in 2022 relative to the pre-reform baseline. The negative coefficient indicates that sectors with higher cash intensity experienced larger declines in verified receipts during the legislative relaxation period.

Source: Authors

Post-Reform Adjustment (2023 Reinstatement)

To assess whether the observed effects were temporary, receipt volumes in 2023 were compared to 2022 levels. The reinstatement of mandatory issuance corresponds with a statistically significant rebound in previously affected sectors (see Table 2 comparisons).

This reversal suggests that the 2022 decline was not part of a broader structural downward trend but rather associated with the temporary modification of enforcement visibility.

Summary of Empirical Findings

The results yield four principal findings:

1. Verified receipt volumes declined significantly in 2022 in selected sectors, supporting H1.
2. The decline was concentrated in cash-intensive sectors, consistent with H2.
3. Sectors with predominantly non-cash transactions were largely unaffected.
4. The reinstatement of mandatory receipt issuance in 2023 coincided with a recovery in verified receipts.

Taken together, the empirical evidence supports the argument that visible compliance mechanisms—such as mandatory receipt issuance—function as behavioural enforcement instruments, particularly in cash-intensive sectors.

These findings provide the empirical foundation for the subsequent discussion of regulatory design and institutional trust.

Discussion

The findings of this study contribute to the growing body of literature examining the behavioural dimensions of tax compliance and the role of enforcement visibility. The Slovenian case provides a rare empirical setting in which enforcement visibility was temporarily reduced without removing the formal obligation to report transactions. This allows for a nuanced comparison with prior research that has primarily focused on the introduction, rather than the suspension, of digital fiscal controls.

Our results partially align with classical deterrence theory (Allingham & Sandmo, 1972), which predicts that compliance depends on perceived detection probability.

The temporary suspension of mandatory receipt issuance reduced the visible monitoring component of the fiscal verification system. In sectors characterised by higher exposure to cash transactions, this reduction appears to have influenced reporting behaviour. The negative correlation between sectoral cash intensity and the change in verified receipts supports the theoretical expectation that lower traceability environments are more sensitive to changes in perceived oversight.

The findings are also consistent with the behavioural framework proposed by Kirchler et al. (2008). The “slippery slope” model suggests that compliance depends on both trust and power. While Slovenia retained formal reporting requirements during 2022, the removal of the consumer-facing issuance obligation may have weakened the perceived enforcement power of the system. This interpretation is consistent with OECD (2017, 2022) findings that visible and simple enforcement mechanisms strengthen compliance norms, particularly in retail and hospitality settings.

However, the Slovenian experience differs from cases such as Croatia and Italy, where the introduction of electronic fiscal devices and e-receipt systems increased declared revenues (Vujić, 2016; OECD, 2020). In contrast to these expansions of monitoring capacity, Slovenia’s 2022 reform represented a procedural relaxation within an already mature digital enforcement framework. The results suggest that even small reductions in enforcement visibility can affect behaviour in specific sectors, though the effects are not uniform across the economy.

Interestingly, not all cash-oriented sectors exhibited statistically significant declines. This nuance contrasts with some international studies that report broader aggregate compliance improvements following digitalisation reforms. The limited statistical significance across sectors indicates that enforcement visibility may interact with other contextual factors, such as post-pandemic recovery dynamics, inflationary pressures, or shifts in consumer payment preferences.

Furthermore, the rebound observed after the reinstatement of mandatory issuance in 2023 supports the reversibility of behavioural responses. This pattern aligns with research emphasising the importance of institutional consistency and predictable enforcement (Alm, 2019). When visible oversight mechanisms are restored, compliance appears to recover, suggesting that perceived monitoring remains an important determinant of reporting behaviour.

Overall, the Slovenian case complements existing literature by demonstrating that deregulation—particularly in the domain of visible enforcement—can generate measurable sectoral effects even when the core reporting infrastructure remains intact. Rather than contradicting prior findings on digital fiscalisation, the results refine them: enforcement visibility operates as a behavioural signal, and its reduction may weaken compliance in environments where informal practices are structurally more feasible.

Given the aggregated nature of the dataset, the observed patterns should be interpreted as sector-level behavioural shifts rather than direct evidence of individual firm misconduct.

Conclusions

This research focused on the impact of the Slovenian 2022 legislative change, which has temporarily suspended the legal duty to issue a receipt to customers before demand. The transactions undoubtedly continued to be reported to the Financial Administration (FURS), but removing the issuance in sight has changed the compliance scene. Employing sector-level data from 2019-2023, the paper estimates whether this procedural change influenced fiscal conduct.

The results support both predictions. First, receipts were substantially down in 2022 (on a verified basis), with the most significant drops in receipts in the hospitality, retail, and personal services sectors – consistent with H1. Second, the decline was larger in cash-heavy sectors, which confirms H2. Second, a negative significant association between cash dependency and the change in compliance is consistent with previous literature exposing it as a risk in such sectors for informal activity (Vujić, 2016; OECD, 2017).

These results support the slippery slope model (Kirchler et al., 2008), in which tax compliance is related to trust and enforcement. This shift towards lower enforcement visibility in the 2022 policy was detrimental to reinforcing norms of behaviour. The increase in return to compulsory serious issuing in 2023 and the rebound in verified receipts indicates how taxpayers respond to regulatory cues.

However, the study has limitations. It relies on aggregated sector data without firm-level granularity or regional disaggregation. It also focuses on receipt counts, not transaction values, limiting insight into revenue loss. Broader economic factors such as inflation or demand

shifts may also have influenced compliance behaviour during the period.

Notwithstanding these limitations, the results provide substantial policy implications. The issuance of visible receipts needs to be the cornerstone of efforts to enforce compliance, especially in cash-intensive sectors. Second, efforts to simplify should not weaken oversight. Clarity of regulation and trust in the institution is crucial for maintaining tax morale. Third, enforcement efforts should be focused – intense oversight and public information campaigns may be most effective in high-risk sectors.

Lastly, future tax policy reforms should be preceded by behavioural impact assessments. Even modest procedural changes can affect compliance and public revenues in significant ways.

The Slovenian case offers a valuable example of how small regulatory shifts can alter compliance norms while demonstrating that clear, consistent enforcement can quickly restore them. The findings support a nuanced approach to tax administration – balancing simplification with sector-specific vigilance and trust-building.

Several avenues exist for extending the present analysis. First, the use of firm-level or regionally disaggregated data would allow for more precise identification of heterogeneous behavioural responses. Micro-level administrative datasets could reveal whether compliance adjustments were concentrated among specific firm

sizes, ownership structures, or geographic areas. Such granularity would substantially improve causal inference and enable a deeper understanding of compliance dynamics.

Second, incorporating transaction values in addition to receipt counts would provide a more comprehensive assessment of fiscal impact. While the present study focuses on reporting frequency as a behavioural indicator, changes in the monetary value of transactions may yield different conclusions regarding total tax revenue effects. Future research combining receipt counts, VAT base data, and turnover information would offer a fuller picture of both behavioural and fiscal consequences of regulatory adjustments.

Third, supplementing quantitative analysis with qualitative methods – such as interviews with business owners, tax officials, or sector representatives, or surveys examining taxpayer perceptions – could enrich understanding of the motivations underlying observed behavioural patterns. Such approaches would help clarify whether changes in reporting were driven by perceived detection risk, administrative convenience, shifting consumer expectations, or broader institutional trust considerations.

Together, these extensions would allow for a more comprehensive evaluation of how enforcement visibility shapes compliance behaviour across institutional and economic contexts.

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Zakonodajne spremembe in davčna skladnost: vpliv zahtev za izdajo računov na davčno preverjanje v Sloveniji

Izvleček

Ta članek preučuje vpliv zakonodajne spremembe v Sloveniji iz leta 2022, ki je začasno odpravila obvezno izdajanje računov strankam, hkrati pa ohranila obveznost davčnega preverjanja transakcij pri davčni upravi (FURS). Na podlagi administrativnih podatkov na ravni šestih gospodarskih sektorjev za obdobje 2019–2023 študija uporablja t-teste in korelacije za analizo sprememb v številu preverjenih računov med in po zakonodajni spremembi. Rezultati kažejo znatno zmanjšanje obsega računov v nekaterih sektorjih, ki temeljijo na gotovini, kot sta gostinstvo in trgovina na drobno, za katere obstajajo dokazi o zmanjšanju zaznane ravni vidnosti izvrševanja na podlagi naših podatkov o plačilih. Vpliv se je v letu 2023 po ponovni uvedbi politike obrnil. Ta študija prispeva k literaturi o davčni morali in fiskalnem izvrševanju, saj dokazuje, da lahko tudi minimalne postopkovne spremembe povzročijo znatne vedenjske odzive. Njeni vplivi so pomembni za davčne uprave, ki skušajo uravnotežiti poenostavitev in odvrčanje.

Ključne besede: Davčna skladnost, fiskalna verifikacija, izdaja računov, zakonodajna reforma, FURS, Slovenija