



LEGALIZING PREMIUM SECONDHAND TRADE: ECONOMIC POTENTIAL FOR BALI'S TOURISM SPECIAL ECONOMIC ZONES

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Abstract

This study analyzes the economic potential of legalizing the premium secondhand trade in Bali Province driven by tourist expenditures, utilizing the 2016 Tourism Satellite Account (TSA) framework and Input-Output (I-O) Table. A simulated shock of IDR 1.27 trillion was applied to the "Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles" sector to measure the multiplier effects on output, wages, and employment within the tourism economy. The results demonstrate that the legalization of premium circular goods trade could generate a total output impact of IDR 1.65 trillion, an additional wage impact of IDR 72.20 billion, and create 25.23 thousand new jobs. These findings indicate that legalization through the Special Economic Zone (SEZ) mechanism holds substantial potential to transition previously prohibited economic activities into supportive components of a legal and sustainable tourism sector, enhance labor absorption, and strengthen Bali's green economy ecosystem. This study contributes to the broader discourse on transitioning from prohibited goods to restricted legality by demonstrating measurable economic benefits through TSA and I-O modeling. Policy implications suggest that a structured trade legalization approach via SEZ customs facilities—pursuant to Government Regulation (PP) No. 40/2021 and Minister of Finance Regulation (PMK) No. 33/PMK.010/2021—can serve as a strategic alternative to legalize the premium secondhand business, thereby optimizing sustainable economic potential in Bali and Indonesia.

Keywords: I/O-TSA analysis; Legalization; Multiplier effect; Premium circular trade; Special Economic Zone

Abstrak

Penelitian ini menganalisis potensi ekonomi dari legalisasi perdagangan barang bekas premium di Provinsi Bali dari belanja wisatawan menggunakan kerangka Tourism Satellite Account (TSA) dan Tabel Input-Output (I-O) tahun 2016. Guncangan simulasi senilai 1,27 triliun rupiah diaplikasikan pada sektor "Perdagangan Besar dan Eceran; Reparasi Kendaraan Bermotor dan Sepeda Motor" untuk mengukur efek pengganda terhadap output, upah, dan tenaga kerja dalam ekonomi pariwisata. Hasil penelitian menunjukkan bahwa legalisasi perdagangan barang sirkular premium dapat menghasilkan dampak output total sebesar 1,65 triliun rupiah, dampak upah tambahan sebesar 72,20 miliar rupiah, dan dapat menciptakan 25,23 ribu lapangan kerja baru. Temuan ini mengindikasikan bahwa legalisasi melalui mekanisme Kawasan Ekonomi Khusus (KEK) memiliki potensi besar untuk mentransisikan aktivitas ekonomi yang sebelumnya dilarang menjadi penunjang sektor pariwisata yang legal dan berkelanjutan, meningkatkan penyerapan tenaga kerja, serta memperkuat ekosistem ekonomi hijau Bali. Penelitian ini berkontribusi pada wacana lebih luas tentang transisi dari barang larangan menjadi legal secara terbatas dengan mendemonstrasikan manfaat ekonomi yang terukur melalui pemodelan TSA dan I-O. Implikasi kebijakan menunjukkan bahwa pendekatan legalisasi perdagangan terstruktur melalui fasilitas kepabeanan KEK berdasarkan PP No. 40/2021 dan PMK No. 33/PMK.010/2021 dapat menjadi alternatif strategis untuk melegalkan bisnis barang bekas premium, sehingga mengoptimalkan potensi ekonomi berkelanjutan di Bali dan Indonesia.

Kata kunci: Analisis TSA dan I/O; Angka pengganda; Legalisasi; KEK; Perdagangan barang bekas premium

INTRODUCTION

The global transition toward circular economy models has fundamentally challenged traditional linear economic paradigms of "take-make-dispose." According to Kirchherr, Reike, and Hekkert (2017), the circular economy encompasses the circulation of goods and materials throughout their lifecycle, where used goods can be transferred to other economic sectors for reuse, recycling, or repair, thereby reducing waste and natural resource consumption. Special Economic Zones (SEZs) represent strategic policy instruments that governments employ to enhance business



competitiveness and facilitate international trade through regulatory advantages, fiscal incentives, and streamlined customs procedures.

In Indonesia, the import of used goods is highly regulated, particularly regarding hazardous waste. While imports for recycling and circular economy activities are permitted under strict supervision, the restrictive nature of current regulations has created unintended consequences: the proliferation of informal and illegal trade networks that operate beyond regulatory oversight, depriving governments of tax revenue and compromising consumer safety.

According to (Kirchherr et al., 2017), the circular economy encompasses the circulation of goods and materials throughout their lifecycle, where used goods can be transferred to other economic sectors for reuse, recycling, or repair, thereby reducing waste and natural resource consumption. (Steinfat, 2020) extends this conceptualization by identifying that circular economy-related trade includes the shipment of waste and materials to destinations with comparative advantages in recycling, as well as the development of "circular trade" and "circular supply chain" concepts that demonstrate the potential for trading goods and services involving sustainable usage cycles. Recent scholarly contributions have further refined our understanding of circular economy discourse. (Calisto Friant et al., 2020) developed a typology of Circular Economy (CE) discourse that maps the diversity of often conflicting CE visions and ideas, while offering a framework for more coherent policy dialogue. (Afolabi, 2025) research in Europe demonstrates that consistent standardization and CE indicators are crucial, highlighting how inter-agency coordination and enforcement prevent fragmentation, with industrial symbiosis showing the benefits when policies, institutions, and standards are aligned. This presents a fundamental policy question: Should governments maintain prohibitive approaches that inadvertently strengthen black markets, or should they establish regulated legalization frameworks that bring these economic activities into formal channels where they can be monitored, taxed, and aligned with sustainability objectives?

This study adopts a critical perspective shift: from viewing certain goods as prohibited (illegal) to reconceptualizing them as legal and economically beneficial when channeled through appropriate regulatory mechanisms such as SEZs. The current prohibition inadvertently encourages smugglers to compete in entering the black market for domestic trade, disadvantaging the country through lost revenue and generating no positive added value due to the underground market mechanism. By contrast, a regulated legalization approach through SEZ frameworks could transform this shadow economy into a transparent, tax-generating, employment-creating sector that contributes to Bali's sustainable tourism development.

Despite growing academic interest in circular economy models and tourism economics, there remains a significant gap in empirical research that quantitatively assesses the economic impacts of legalizing premium circular goods trade within tourism-dependent economies. Existing literature has largely focused on either circular economy principles in isolation or tourism economic impacts separately, without integrating these domains through rigorous economic modeling frameworks. Furthermore, previous studies have not adequately explored how policy transitions from prohibition to legalization can be quantitatively evaluated using combined Tourism Satellite Account (TSA) and Input-Output (I-O) methodologies.

This study addresses these gaps by: Integrating TSA and I-O modeling to provide a comprehensive assessment of economic impacts from legalizing premium circular goods trade. Quantifying the shift from prohibition to legalization through measurable economic indicators (output, wages, employment). Contextualizing circular economy trade within tourism ecosystems, particularly relevant for tourism-dependent regions like Bali.



LITERATURE REVIEW

Rubbish Theory:

According to (Thapa et al., 2024), Thompson's Rubbish Theory views waste as a social construct that can shift between categories of "waste" and "non-waste." The perceived value of goods changes with context and time. In a circular economy, this concept supports the revaluation of used or discarded products as new economic resources, forming the basis for legal and sustainable trade in circular premium goods. Recent scholarship has increasingly recognized that circular economy principles extend beyond industrial materials and waste streams to encompass high-value consumer goods, particularly through recommerce, refurbishment, and premium-quality reuse markets. Circular premium goods, as conceptualized by (Adiguizel et al, 2023), refer to luxury segment products designed based on circular economy principles that extend product life through repair, reuse, and recycling without sacrificing quality or aesthetic value. These items combine sustainability values with the exclusive characteristics of luxury goods such as craftsmanship and durability, thus occupying the intersection between circular economy principles and green luxury economics where sustainability becomes an integral part of innovation and the symbolic value of premium products. This theoretical reframing is particularly relevant for policy transitions from prohibition to supervised legalization, as it highlights how institutional context and regulatory frameworks can fundamentally transform perceptions of product value and legitimacy (Bundgaard & Huulgaard, 2019).

Input-Output Theory

Building on Leontief's foundational work and subsequent refinements by (Miller & Blair, 2009) and Rasmussen (1957), Input-Output analysis provides a systematic framework for understanding how exogenous changes (shocks) in final demand propagate throughout an economy through backward and forward linkages, ultimately increasing total output, income, and employment. The intersection of tourism economics and circular trade creates unique opportunities in contexts like Bali, where international visitor spending generates distinct demand structures that differ substantially from domestic consumption patterns. However, despite the obvious relevance of tourism demand to circular premium goods markets, prior research has not adequately addressed this intersection. Studies examining circular economy governance rarely consider tourism as a demand driver, while tourism economics literature typically treats goods purchases as undifferentiated retail spending without exploring opportunities for sustainable product integration. By combining TSA data on tourist spending patterns with I-O multiplier analysis, this study develops a hybrid analytical framework that can quantify the regional economic gains from policy transitions that transform informal/illegal economic activities into formal, regulated sectors.

METHODS

Research Design and Analytical Framework

This study employs a quantitative forecasting methodology that integrates two complementary analytical frameworks to assess the economic potential of legalizing circular premium goods trade in Bali Province. The research design combines Tourism Satellite Account (TSA) analysis for demand calibration with Input-Output (I-O) shock simulation for multiplier effect estimation, creating a hybrid analytical approach that enables comprehensive assessment of both direct and indirect economic impacts across multiple dimensions of regional economic performance.



The methodological architecture consists of three sequential analytical stages. First, TSA data analysis identifies tourism goods spending patterns and calibrates potential demand for circular premium goods based on observed tourist consumption behavior. Second, global market data is integrated with provincial economic indicators to estimate the magnitude of demand shock that would result from legalizing circular premium goods trade through Special Economic Zone mechanisms. Third, I-O modeling quantifies how this demand shock propagates throughout Bali's economy via inter-sectoral linkages, generating measurable impacts on output, wages, and employment across seventeen economic sectors.

This integrated TSA-I/O approach represents a methodological innovation in circular economy impact assessment, as it enables quantification of economic benefits from policy transitions that transform previously prohibited activities into formal economic sectors. By grounding the demand shock in empirically observed tourism spending patterns rather than arbitrary assumptions, the methodology enhances the credibility and policy relevance of impact estimates. Furthermore, the I-O framework's capacity to trace ripple effects through supply chains enables identification of both direct beneficiaries and indirect spillover effects across the broader regional economy.

Data Sources and Selection Rationale

The empirical foundation of this study is based on four primary data sources, each serving a distinct role within the analytical framework to ensure that impact estimates reflect both Bali's economic structure and emerging trends in circular premium goods demand.

First, this study utilizes the 2016 Bali Province Input–Output (I-O) Table, published by Indonesia's Central Statistics Agency (BPS) and updated in 2021. The table applies producer-price valuation and classifies economic activity into seventeen sectors, allowing analysis of inter-sectoral linkages relevant to circular premium goods trade. Despite its 2016 base year, the updated version represents the most recent and comprehensive I-O dataset available for Bali, offering sufficient sectoral detail while maintaining analytical tractability.

Second, tourism demand and expenditure patterns are derived from the Indonesian Tourism Satellite Account (TSA) 2019–2023, published by BPS in 2025 and compiled in accordance with UNWTO guidelines. The TSA provides standardized data on tourist spending, including tourism goods, and serves two key purposes: establishing empirical evidence of tourism-driven goods demand and informing calibration of potential circular premium goods demand. While data from 2020–2021 may reflect COVID-19 disruptions, the time series remains suitable for identifying medium-term expenditure trends.

Third, market size estimation draws on the Global Used Products Market Report 2025, published by The Business Research Company. The report estimates global used products market value at USD 475.19 billion in 2025, with a projected compound annual growth rate of 12.5%. This global benchmark forms the basis for proportional scaling to estimate potential market demand in Bali, as described in Section 3.3.

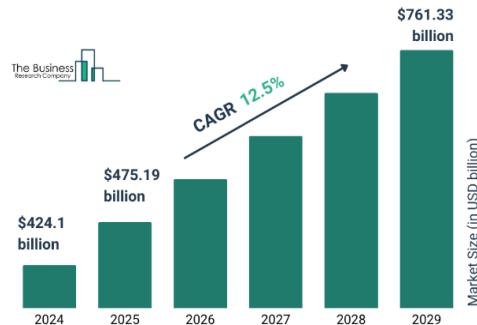
Finally, selling value in business markets according to (Terho et al., 2017) supplementary sources include academic literature on circular economy and tourism economics, Indonesian customs regulations on used goods imports, and industry reports on luxury and recommerce markets. These sources provide contextual support, validate assumptions, and enable triangulation with international experiences.



Shock Calibration: Estimating Circular Premium Goods Demand

A critical methodological challenge in this study involves estimating the magnitude of demand for circular premium goods that would materialize following legalization through SEZ mechanisms. Since no historical data exists for this market segment in Bali (precisely because the trade is currently prohibited or operates informally), demand estimation requires a multi-step calibration procedure that combines global market data with proportional scaling based on economic size indicators.

Figure 1. Global Used Products Market Report



Source: Business Research Corporation (2025)

Step 1: Global Market Baseline. The calibration begins with the global used products market valuation of USD 475.19 billion in 2025, as reported by The Business Research Company (2025). Figure 1 represents aggregate consumer expenditure on second-hand goods across all categories and geographies, providing a reference point for market potential.

Step 2: Indonesia Market Share Estimation. To estimate Indonesia's share of global used products demand, this study employs GDP as a proxy indicator on the assumption that used goods consumption correlates with overall economic size and purchasing power. Indonesia's GDP represents approximately 1.25% of global GDP (based on 2024 data), yielding an estimated Indonesian used products market of: Indonesian Market = USD 475.19 billion $\times$ 1.25% = USD 5.94 billion $\approx$ IDR 94.41 trillion (using exchange rate of 1 USD = 15,850 IDR)

Step 3: Bali Provincial Market Share. Bali's share of the Indonesian market is similarly estimated using Gross Regional Domestic Product (GRDP) as a proportional indicator. Bali Province's GRDP represents approximately 1.35% of Indonesia's total GDP, yielding: Bali Market = IDR 94.41 trillion $\times$ 1.35% = IDR 1.27 trillion

This IDR 1.27 trillion estimate represents the annual potential market value for used/circular premium goods in Bali Province if such trade were legalized and properly developed. It is important to note that this figure represents potential demand rather than guaranteed market realization, as actual market development would depend on factors including product availability, quality assurance systems, marketing effectiveness, and consumer acceptance.

Step 4: Sectoral Allocation. The estimated demand shock of IDR 1.27 trillion is allocated to the "Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles" sector in the I-O table, as this sector most appropriately captures the economic activity involved in circular premium goods distribution. This allocation reflects the assumption that circular premium goods trade would function primarily through retail channels serving tourists and would generate demand for wholesale distribution, retail facilities, and potentially repair/authentication services that align with this sector's activities.



This calibration methodology incorporates several important assumptions that merit explicit acknowledgment. First, the use of GDP/GRDP as proportional scaling factors assumes that used goods consumption patterns correlate with overall economic size, which may not fully capture factors such as consumer preferences, cultural attitudes toward second-hand goods, or tourism-specific demand drivers. Second, the global market data encompasses all categories of used goods, whereas circular premium goods represent a specific high-value segment; the proportional scaling assumes Bali's market composition would mirror global patterns, which may overstate or understate demand depending on tourist preferences. Third, the estimate represents annual potential demand but does not specify time horizons for market development or capture potential supply constraints. Despite these limitations, the calibration methodology provides a transparent, replicable approach grounded in empirical data that enables quantitative impact estimation.

Analytical Procedures and Software

Data processing and calculations were conducted using Microsoft Excel for I-O matrix operations and multiplier calculations, supplemented by descriptive statistical analysis of TSA data. The analytical procedure followed these sequential steps:

Data preparation: Extraction and formatting of the 2016 Bali I-O table, calculation of technical coefficients matrix (A), verification of matrix properties

Leontief inverse calculation: Computation of $(I-A)^{-1}$ using matrix inversion procedures

Coefficient calculation: Derivation of wage coefficients (h_i) and labor coefficients (w_i) from I-O table supplementary data.

Hypothesis Testing Framework

The four research hypotheses outlined in Section 1.7 are tested through examination of calculated multiplier effects and linkage indicators:

H1 (Positive output effect): Tested by examining whether the total output multiplier effect across all sectors exceeds the initial shock value (IDR 1.27 trillion), indicating positive spillover effects beyond the directly shocked sector.

H2 (Positive employment effect): Tested by examining whether the total employment multiplier generates measurable job creation (positive values > 0), indicating that circular premium goods legalization would increase labor absorption.

H3 (Positive wage effect): Tested by examining whether the total wage multiplier generates measurable income increases (positive values > 0), indicating distributional benefits to workers across multiple sectors.

H4 (Wholesale-Retail as transmission channel): Tested by examining the backward linkage, forward linkage, dispersion coefficient, and sensitivity coefficient values for the Wholesale and Retail Trade sector, with support indicated by $BL > 1$, $FL > 1$, or proximity to key sector thresholds.

RESULTS AND DISCUSSION

The Potential of Circular Premium Goods Trade as a Form of Tourism Diversification

In the context of Bali's tourism economy, circular premium goods offer economic diversification opportunities by integrating sustainability, creativity, and tourism experiences. Bali's strong cultural heritage and global recognition position it as a potential hub for sustainable luxury tourism. This concept is in line with the recommerce and eco-design trends adopted by European luxury brands (BOUSTANI, 2021). The increasing awareness of global travelers towards sustainability and authenticity further strengthens this opportunity.

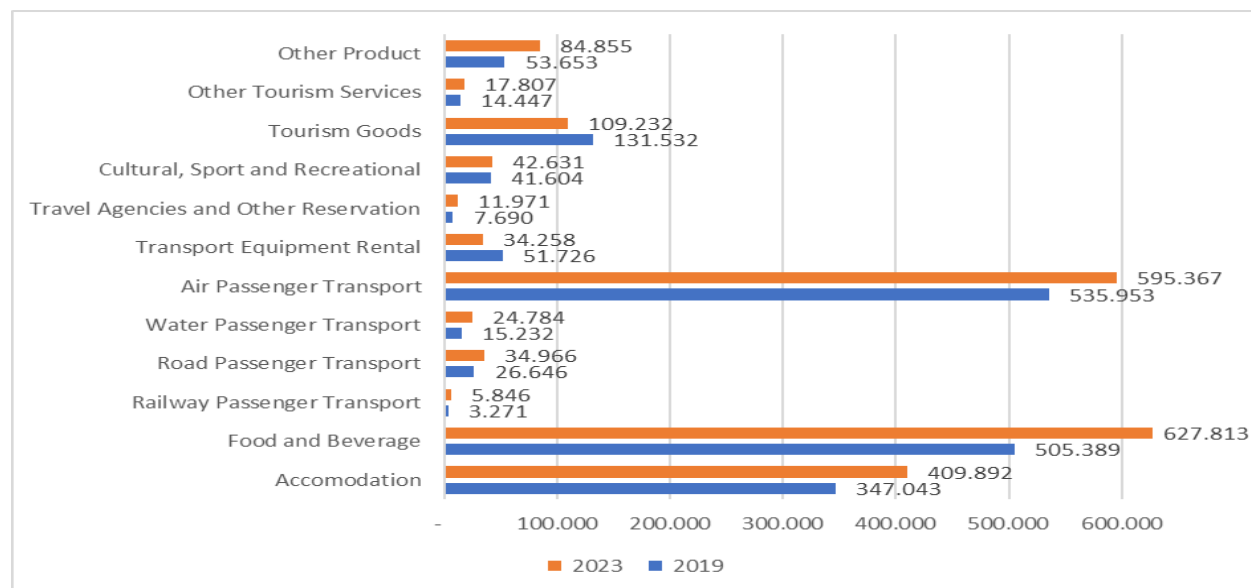


Appropriate policy support, such as selective customs facilities exclusive to Bali, can encourage the development of creative industry clusters centered on circular premium goods. Implementing this strategy within the framework of Special Economic Zones (SEZs) is an effective means to expand the tourism value chain and strengthen Bali's position as a destination that combines luxury and sustainability. By Integrating circular economy principles (Bato & Kaš'áková, 2025) into premium goods can enhance Bali's image as a green luxury tourism hub with global competitiveness while contributing to the region's sustainable economic growth.

In this study, the global market value of used products was used as a shock variable in the Input-Output Table (I-O) Analysis to determine the potential economic impact if the trade of circular premium goods is integrated into the Bali Province economic network. This value is then estimated as an estimate of the trade value of circular premium goods in Bali using the Gross Domestic Product (GDP) approach as a proxy for the market share ratio. Based on the estimated results, the trade value of circular premium goods used as shocks amounted to IDR 1.27 trillion. This shock serves as an additional input for Wholesale and Retail Trading; Improvement of the Motor Vehicle and Motorcycle sector, whose economic impact on total output is then calculated.

Bali Province is the center of tourism in Indonesia, as evidenced by I Gusti Ngurah Rai International Airport, which serves as the main entrance for international tourists to Indonesia (Central Statistics Agency, 2025). In 2024, as many as 6,308,541 people, or around 45.38% of all international tourists, will enter Indonesia through airports in Bali Province. This large number makes Bali a potential center for tourism development in Indonesia, one of which is through the trade of circular premium goods. Based on the 2019–2023 Tourism Satellite Account, there are several categories of tourist spending. Figure 2 demonstrates the main components of expenditure are dominated by food and beverage service servings, air passenger transportation services, visitor accommodation services, and tourism goods.

Figure 2. Internal Tourism Expenditure by Product (Billion Rupiah), 2019 and 2023



Source: Central Statistics Agency (2025)

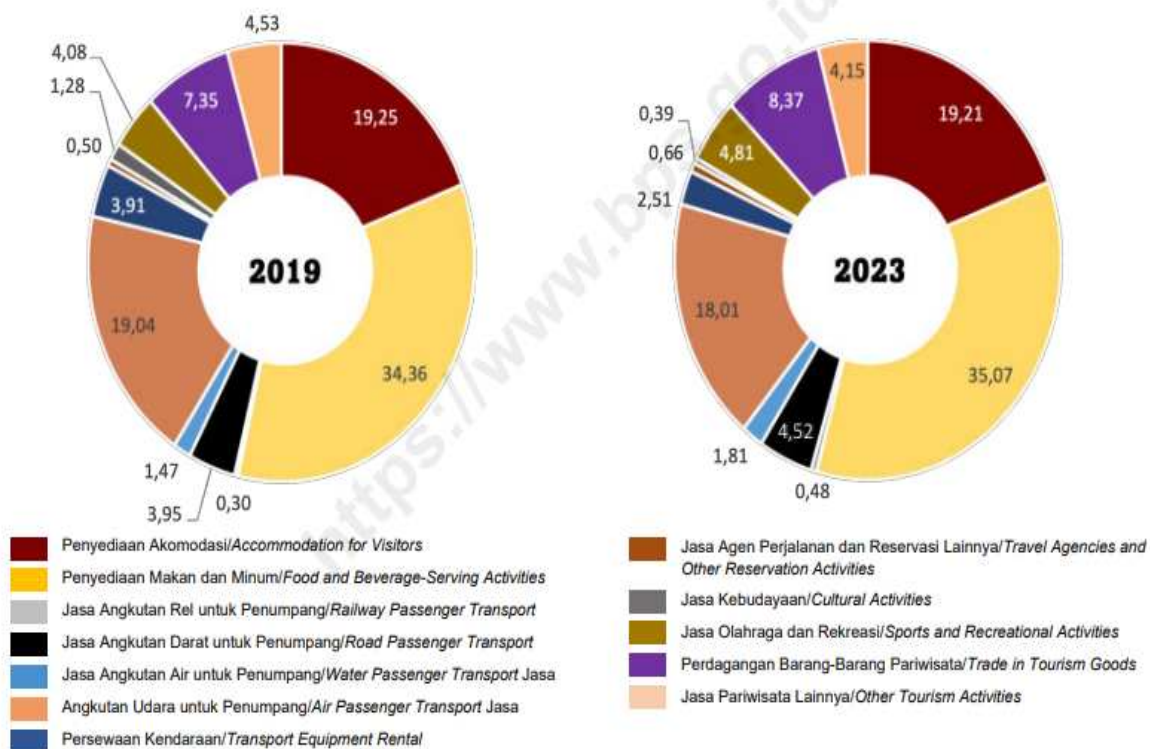
Tourism spending ranks fourth highest among both international and domestic tourists in Indonesia, amounting to IDR 131,532 billion in 2022 and falling to IDR 109,232 billion in 2023.



The relatively high expenditure on tourism goods indicates that tourists visiting Indonesia have a strong preference to purchase certain products during their trip. This is a positive signal for the potential development of circular premium goods trade in Bali Province, considering the relatively high willingness of tourist consumers to pay for tourism-related products.

From the perspective of the economic sector, the condition of tourism can be measured, among others, by the Gross Value Added of Tourism Industries (GVATI). GVATI is an indicator that describes the gross added value generated by industries directly related to tourism (Central Statistics Agency, 2025). Based on Figure 3, it is known that the trade in tourism goods is the fourth largest contributor to GVATI, at 7.35% in 2019 and increasing to 8.37% in 2023. This shows that trade in tourism goods makes a significant contribution to the economy in the tourism sector, thus making the development of trade for tourism a potential opportunity to improve Indonesia's economic performance. This condition can be a positive signal to further develop the circular premium goods trade in order to strengthen the contribution of tourism goods trade to the economy of Bali Province.

Figure 3. GVATI Indonesia Distribution (percent), 2019 and 2023



Source: Central Statistics Agency (2025)

The potential of tourist shopping in Bali Province can be directed to circular premium goods. These products highlight aesthetic, sustainability and local identity. Such products appeal to tourists looking for an authentic and eco-friendly experience. The OECD (2022) notes that global travelers are now paying more attention to the sustainability aspect of their consumption decisions.

Estimated Economic Impact of Circular Premium Goods Trade

The effectiveness of government strategies or policies can be measured from their impact on the economy. Trade in circular premium goods in Bali Province through the Special Economic



Zone (SEZ) mechanism is a policy proposed in this study. Analysis, using multiplier effect indicators on output, wages, and income as the main measure of economic performance. Table 1 presents an estimate of the multiplier coefficient and the magnitude of the multiplier effect resulting from the shocks applied to Wholesale and Retail Trade; Improvement of the Motor Vehicle and Motorcycle sector.

Table 1. Analysis of Input-Output Table Multiplier of Bali Province

No	Sector	Output Multiplier		Wage Multiplier		Job Multiplier	
		Coe f.	Value (Million Rupiah)	Coe f.	Value (Million Rupiah)	Coef.	Value (Thousand People)
1.	Agriculture, Forestry and Fisheries	1,18	3.654,77	1,16	112,28	1,12	76,18
2.	Mining and Quarrying	1,19	461,82	-	-	-	-
3.	Manufacturing Industry	1,46	9.793,81	1,39	324,27	1,44	139,70
4.	Electricity and Gas Supply	2,60	20.784,77	-	-	-	-
5.	Water Supply, Waste Management, and Recycling	1,34	135,97	1,20	4,04	1,13	1,91
6.	Building	1,42	6.533,36	1,80	87,21	1,83	29,23
7.	Wholesale and Retail Trade; Motor Vehicle and Motorcycle Repair	1,30	1.291.763,92	1,10	66.762,04	1,07	23.875,00
8.	Transportation and Storage	1,42	34.691,97	1,31	1.091,18	1,93	94,21
9.	Accommodation and Food Service Activities	1,33	24.232,14	1,44	456,14	1,70	127,20
10.	Information and Communication	1,48	50.238,97	2,56	177,94	2,81	41,00
11.	Financial and Insurance Activities	1,20	104.486,14	1,19	2.219,71	1,19	593,55
12.	Real Estate Activities	1,30	64.430,89	-	-	-	-
13.	Business Services	1,48	30.844,59	1,41	737,21	1,38	175,60
14.	Public Administration, Defense, and Social Security Compulsory	1,45	976,61	1,28	34,59	1,29	8,94
15.	Educational Services	1,28	1.071,00	1,17	36,83	1,17	10,42
16.	Health Activities and Social Work	1,29	536,07	1,27	13,78	1,34	3,88
17.	Other Services	1,39	6.500,42	1,30	151,08	1,26	54,97
Total Effect			1.651.137,22		72.208,30		25.231,80

Source: Processed by the Author

Based on the multiplier coefficient and multiplier effect value presented in Table 2, it can be observed that the applied shocks have a significant impact on the economy in Bali. For the total output, the overall multiplier effect is IDR 1.65 trillion. The average effect received across all sectors was IDR 97.12 billion, indicating that only two sectors had an above-average multiplier effect, namely Wholesale and Retail Trade; The Motor Vehicle and Motorcycle Repair Sector and the Financial Services and Insurance sectors. These findings suggest that shocks produce greater impacts on certain specific sectors.

Multiplier coefficients for Wholesale and Retail Trade; The Motor Vehicle and Motorcycle Repair Sector was 1.30, meaning that the increase in inputs for this sector doubled the total output by 1.3 times. The effect that this sector received from the shock amounted to Rp 1.29 trillion, making it the largest among all sectors. This happens because the sector is the direct recipient of the shock, resulting in the most substantial effects. Meanwhile, the sector that received the smallest effect was the Water Supply, Waste Management, and Recycling sector, with an impact of only Rp 135.97 million. The minimal effect is due to the contrasting nature of the sector with the circular trade in premium goods, which emphasizes sustainable reuse rather than recycling.



The wage multiplier effect shows the extent to which shocks can produce multipliers on the total value of wages in a region, while the job multiplier effect reflects the ability of shocks to produce multipliers on total employment. The highest impact was again observed in Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles sector with an effect on wages of IDR 66.76 billion and employment of 23.87 thousand workers. Overall, the total impact on wages reached Rp 72.20 billion, and the total employment impact reached 25.23 thousand workers. When compared to the average across all sectors, only Wholesale and Retail Trade; The Motor Vehicle and Motorcycle Repair sector is above average, indicating that the impact on wages and employment is dominated by one sector.

Furthermore, the analysis of the main sectors was carried out to identify which sectors functioned as central nodes in the Bali Province trade network. This analysis is essential for determining Wholesale and Retail Trading positions; Improvement of the Motor Vehicles and Motorcycles sector as direct recipients of shocks and sectors with the largest multiplier effect. Rasmussen (1957) classified the sector into four categories based on the normalization value of forward linkage and backward linkage: generally independent, dependent on inter-industry demand, generally dependent, and dependent on inter-industry supply. The main sectors are those categorized as generally dependent, which serve as the core of the supply and demand chain within the trade network.

Table 3. Analysis of Linkage and Dispersion Analysis of the Input-Output Table of Bali Province

No	Sector	Linkage Analysis		Dispersion Analysis		Key Sectors
		FL	BL	CDJ	<i>Sdj</i>	
1.	Agriculture, Forestry and Fisheries	1,65	1,18	1,07	0,83	-
2.	Mining and Quarrying	1,94	1,19	1,26	0,84	-
3.	Manufacturing Industry	1,37	1,46	0,89	1,03	-
4.	Electricity and Gas Supply	3,34	2,60	2,16	1,84	✓
5.	Water Supply, Waste Management, and Recycling	1,34	1,34	0,87	0,95	-
6.	Building	1,08	1,42	0,70	1,00	-
7.	Wholesale and Retail Trade; Motor Vehicle and Motorcycle Repair	1,47	1,30	0,95	0,91	-
8.	Transportation and Storage	1,29	1,42	0,83	1,00	-
9.	Accommodation and Food Service Activities	1,15	1,33	0,74	0,94	-
10.	Information and Communication	1,82	1,48	1,18	1,04	✓
11.	Financial and Insurance Activities	1,88	1,20	1,22	0,85	-
12.	Real Estate Activities	1,44	1,30	0,93	0,92	-
13.	Business Services	2,11	1,48	1,36	1,05	✓
14.	Public Administration, Defense, and Social Security Compulsory	1,05	1,45	0,68	1,02	-
15.	Educational Services	1,05	1,28	0,68	0,90	-
16.	Health Activities and Social Work	1,03	1,29	0,67	0,91	-
17.	Other Services	1,25	1,39	0,81	0,98	-

Source: Processed by the Author

Based on Table 3, key sectors are defined as sectors that simultaneously have a *Cdj* and *Sdj* values greater than 1. According to this indicator, the main sectors are the Electricity and Gas Supply sector, the Information and Communication sector, and the Business Services sector. These three sectors serve as the core of demand and supply in the Bali Province's trade network, making them essential for market analysis. The sectors that are the focus of this research are Wholesale and Retail Trade; The Motor Vehicle and Motorcycle Repair sector is not classified as a major



sector, but its value is close to 1, indicating that its demand pull and supply linkage are relatively strong.

Value of forward linkage and backward linkage of Wholesale and Retail Trade; The improvement of the Motor Vehicle and Motorcycle sector is increasingly showing its significance in the trade network. The forward linkage value of 1.47 shows that the supply of products in this sector is relatively high and is used by many other sectors. Meanwhile, a regressive linkage value of 1.30 indicates a strong upstream interconnection between the sector and its suppliers. This shows that, from a market economy perspective, the sector maintains strong links with upstream and downstream industries, making it well-suited for further development. Therefore, integrating the trade of circular premium goods into the sector is a promising and viable expansion opportunity.

The Role of Customs in Building a Safe, Selective, and Sustainable Circular Premium Goods Trade Ecosystem

Customs is mandated to supervise the importation of used goods under the Customs Law, following sectoral regulations issued by the Ministry of Trade. Minister of Trade Regulation No. 40 of 2022 classifies several categories of used goods including clothing, footwear, and electronic products as prohibited imports, with enforcement aimed at protecting public health, environmental safety, and domestic industry standards.

Fiscal incentives available within SEZs enhance product competitiveness while ensuring transactions remain transparent and compliant. Specifically, in the Indonesian context, these facilities are strictly regulated under Government Regulation (PP) No. 40/2021 and Minister of Finance Regulation (PMK) No. 33/PMK.010/2021. Based on these regulations, business operators in tourism SEZs are granted exemptions from import duties, are not subject to Taxes Collected within the Framework of Import (PDRI), and receive exemptions from Value-Added Tax (VAT) and Luxury Goods Sales Tax (LGST) for the entry of certain taxable goods into the SEZ. From a technical and procedural standpoint, the provisions regarding VAT/LGST exemptions and customs procedures are further regulated under Minister of Finance Regulation (PMK) No. 33/PMK.010/2021 concerning Tax, Customs, and Excise Facilities and Incentives in Special Economic Zones, alongside PMK No. 237/PMK.010/2020 in conjunction with (jo.) PMK No. 121/PMK.010/2022.

However, within the context of a circular economy, selective legalization through Special Economic Zone (SEZ) mechanisms offers a regulated alternative to blanket prohibition. Under an SEZ framework, used goods imports can be subject to strict customs supervision, including prior approval, product verification, inventory recording, and post-clearance audits. This approach enables the economic potential of circular premium goods to be harnessed while maintaining safeguards against environmental risks, quality degradation, and illicit trade.

SEZ-based relaxation does not imply deregulation. Instead, it introduces a limited, measurable, and traceable import regime, where all inflows and outflows are recorded, professionally managed, and reported to Customs. Fiscal incentives available within SEZs such as import duty and tax exemptions enhance product competitiveness while ensuring transactions remain transparent and compliant. To mitigate the risk of misuse, enforcement mechanisms such as selectivity controls, random inspections, and compliance audits remain essential components of the supervisory framework.

Within Bali's tourism-oriented economy, this institutional arrangement allows Customs to function not only as an enforcement authority but also as a gatekeeper facilitating safe, targeted, and accountable circulation of circular premium goods, particularly for foreign tourists. By



channeling trade through supervised SEZ facilities, Customs can reduce incentives for smuggling, capture fiscal revenues, and support the transition from informal markets to a legally structured and sustainable tourism retail ecosystem.

The Prohibition-Legalization Paradox

Current Indonesian regulations, particularly Ministry of Trade Regulation Number 40 of 2022 concerning Prohibited Export and Import Goods, restrict imports of used goods including clothing, footwear, and electronic products. These prohibitions aim to protect domestic industry standards, prevent environmental hazards from waste dumping, and safeguard public health. However, prohibition-based approaches create unintended consequences that undermine policy objectives. First, prohibitions cannot eliminate demand; they merely redirect it into informal or illegal channels beyond regulatory oversight. Second, black market transactions generate no tax revenue, depriving governments of funds while enabling untaxed commercial activity. Third, informal markets provide no consumer protections regarding authenticity, quality, or safety, increasing risks precisely for consumers that regulations ostensibly protect. Fourth, prohibition enforcement requires substantial resources while generating no offsetting revenues, straining limited enforcement capacities.

The prohibition-legalization paradox recognizes that certain economic activities may cause less harm and generate greater social benefits when conducted within legal frameworks under supervision than when driven underground by prohibition. This logic has informed policy transitions in domains ranging from gambling to certain pharmaceuticals, and applies directly to circular premium goods trade. By creating legal channels with appropriate safeguards, policymakers can capture revenue, enforce quality standards, prevent fraud, and channel demand toward supervised transactions while eliminating enforcement costs associated with combating smuggling.

SEZ Mechanisms as Enabling Institutional Infrastructure

Special Economic Zones provide institutional infrastructure that enables supervised legalization through five key mechanisms:

1. **Controlled Importation with Traceability.** Circular premium goods entering through SEZ channels would be subject to systematic authentication, quality verification, and inventory tracking that creates complete transaction records. This traceability enables enforcement of quality standards while preventing counterfeit products or hazardous materials from entering consumer markets.
2. **Authentication and Quality Assurance Systems.** With transparent channels where consumers can purchase confidently, SEZ operators can implement systematic quality control as a condition of operating permits, creating accountability mechanisms absent in informal trade.
3. **Customs Supervision and Revenue Collection.** This supervisory approach generates revenue while enabling legitimate commerce—a superior outcome to costly enforcement that generates no revenue while failing to eliminate black markets. The professional recording, management, and reporting of transactions within SEZ systems provides transparency that informal markets inherently lack.
4. **SEZ fiscal facilities,** particularly import duty exemptions and tax incentives managed through the Indonesia Integrated Zone Information System (SINDEK) pursuant to PMK No. 33/PMK.010/2021, serve critical functions beyond revenue sacrifice.

**Addressing the Black Market Problem**

Perhaps the most compelling policy rationale for SEZ-based legalization is its potential to reduce black market activity that current prohibitions have failed to eliminate. The quantitative results in this study estimating IDR 1.27 trillion in potential market demand represent economic activity that currently occurs largely through informal or illegal channels (or remains entirely unmet demand). Prohibition has not eliminated this demand or the supply responses it generates; it has merely ensured that transactions occur beyond regulatory oversight, generating no tax revenue, providing no consumer protections, and creating enforcement challenges.

The redirection of demand from informal to formal channels transforms revenue losses into revenue gains, converts unprotected transactions into supervised commerce, and eliminates smuggling incentives. The recording requirements and audit mechanisms inherent in SEZ operations ensure selectivity and prevent the framework from becoming a smuggling legalization pathway a risk that can be managed through systematic oversight and enforcement of SEZ operating conditions.

CONCLUSION**Conclusion**

Based on the results of the research that has been conducted one of the constructive policies is to provide solutions to the violations that were previously massively committed from illegal trade. The import of used goods that were previously illegal, can be proposed to be legalized through the SEZ mechanism under the facilitation and supervision of Customs. The Input-Output (I/O) Table analysis shows that circular premium goods trade in Bali Province can produce a significant projected multiplier effect on final output, wages, and employment in Bali Province.

The wage multiplier effect shows the extent to which shocks can produce multipliers on the total value of wages in a region, while the job multiplier effect reflects the ability of shocks to produce multipliers on total employment. The highest impact was again observed in Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles sector with an effect on wages of IDR 66.76 billion and employment of 23.87 thousand workers. Overall, the total impact on wages reached Rp 72.20 billion, and the total employment impact created new jobs for 25.23 thousand workers.

Recommendation

Policy implications can start with recommendation as follows:

1. Pilot SEZ for Circular Premium Goods Begin with fashion & accessories to test authentication and traceability mechanisms.
2. Customs-led authentication system mandatory labeling, QR tracking, serial-number registration.
3. Integration with local MSMEs
4. Blend imported premium goods with curated local creative products. Expand modelling in future research use SAM, IRIO, CGE, and LCA for multidimensional sustainability assessment.

Research Limitations

This study acknowledges several methodological limitations that should be considered when interpreting the findings:

1. Use of a Fixed-Coefficient Input–Output (I/O) Model. The I/O framework assumes fixed production coefficients and constant technological relationships across sectors. Consequently, it cannot capture price adjustments, substitution effects, supply constraints, or behavioral



responses from producers and consumers. The estimated multipliers therefore reflect short-run, proportional changes and may overstate or understate real-world dynamics.

2. Absence of a Fully Regionalized Database for Bali. The Bali I/O table used in this study is derived from a hybrid combination of provincial statistics and national technical coefficients. As such, sectoral linkages may not perfectly mirror Bali's actual industrial structure, especially in tourism-dependent supply chains that differ from national averages.
3. Shock Calibration Based on Aggregated TSA Data. The TSA-derived demand shock relies on national-level tourism expenditure patterns, which are then scaled to Bali's share.
4. While appropriate for forecasting, this approach cannot fully reflect heterogeneity in traveler preferences, length of stay, or high-value niche consumption behaviors specific to premium circular goods.
5. Scenario-Based Forecasting Without Behavioral Modelling. The legalization scenario is hypothetical, and the model does not incorporate potential shifts in consumer preferences, competitive responses from domestic retailers, adaptation strategies by informal/illegal market actors, compliance risks or transaction frictions within SEZs.
6. The study thus provides potential economic magnitudes, not precise predictions.
7. Legal and Regulatory Feasibility Not Fully Assessed

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