



The Impact of Jordanian Customs Policies on the Success of Supply Chains

Murad Ali Ahmad Al-Zaqeba*¹

¹ Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia, 71800 Nilai, Negeri Sembilan, Malaysia.

ABSTRACT - This study investigates the impact of Jordanian customs policies on the success of supply chains. This research paper was conducted using a quantitative survey design, with data collected from the Jordanian Customs Department through questionnaires. The questionnaires were adopted and adapted from previous studies, and they were developed using basic random selection techniques and a five-point Likert scale. A total of 189 responses were collected, of which 181 were valid for statistical analysis; eight responses were excluded due to outliers. Consequently, 181 were analysed using Smart PLS 4.1.0.3 for hypothesis testing. The findings provide insights into the impact of customs policies on supply chain success and highlight the mediating role of sustainable practices. This research contributes to understanding supply chain management in the context of customs policies. It also underscores the importance of aligning regulatory measures with sustainability goals to drive supply chain performance.

ARTICLE HISTORY

Received: 26th Dec 2023

Revised: 04th Jun 2024

Accepted: 21st Jun 2024

Published: 01st Dec 2024

KEYWORDS

Supply chain success, Jordanian customs department, Sustainable practices, Customs policies, Smart PLS4.

INTRODUCTION

In today's globalised economy, the efficiency and reliability of supply chains are critical determinants of business success. Supply chains encompass a series of interconnected activities that ensure the flow of goods from manufacturers to consumers. In this complex network, customs policies play a pivotal role in facilitating or hindering the smooth movement of goods across borders. However, customs policies are critical to the winning edge of supply chains and the practice of best business sustainability (Nze-Ekpebie & Nze-Ekpebie, 2023). This importance is more significant in emerging market countries such as Jordan, located in the middle of Asia, Europe, and Africa, which warrants effective logistics systems to sustain logistics economic spin-offs and promote trade at a regional level. However, Jordan, strategically located at the crossroads of Asia, Africa, and Europe, has implemented various customs policies that significantly influence its supply chain dynamics. Nevertheless, Jordanian customs policies are designed to regulate and facilitate international trade, ensuring compliance with national laws and international agreements (Al-Zoubi & Alkassaabeh, 2024). These policies encompass a wide range of activities, including tariff regulations, import and export restrictions, customs valuation, and clearance procedures. While these regulations are intended to protect domestic industries, generate revenue, and ensure security, their impact on the efficiency and success of supply chains can be profound. At the same time, the literature has acknowledged the significance of individual components such as customs

procedures, sustainability, and supply chain success (Wang et al., 2019; Malatji, 2023), yet there is no coherent understanding of their inter-relatedness (Men et al., 2023). Notably, Jordan has grown in economic development, fetching a vital role in commerce in the region. The seamless movement of goods and services, whether between Jordan's territories or across its boundaries, underscores the pivotal contribution of Jordanian supply chains in maintaining this level of growth (Al-Zaqeba & Al-Rashdan, 2020a). Furthermore, the continuous change to a more competitive and progressive market environment makes it obligatory for Jordan to set up new and smart strategies consistent with the development of supply chains and environmentally sustainable business approaches (An et al., 2023). In addition, customs policies and practices commodify the obstacles to trade and translate supply chain competitiveness (Maabreh, 2024). Other than that, the worldwide spotlight on sustainability is demanding businesses to operate in a more environmentally friendly way.

Jordanian customs policies consist of regulations and procedures designed to manage the import and export of goods across the nation's borders. These policies play a critical role in safeguarding national security, generating revenue, protecting domestic industries, and ensuring adherence to international trade agreements. Note that the primary components of Jordanian customs policies include tariff regulations, import and export restrictions, customs valuation, clearance procedures, compliance and enforcement measures, trade facilitation initiatives, and regulatory transparency. Tariff regulations involve varying tax rates imposed on imported goods based on product type, value, and origin. These rates are periodically adjusted to protect local industries and honour international commitments. Meanwhile, import and export restrictions focus on safety, health, environmental, and security considerations, requiring special licenses or permits for certain goods. At the same time, customs valuation, predominantly based on the transaction value method, determines the value of imported goods for tariff and tax purposes, while other methods are employed when necessary. The clearance process, involving document submission, goods inspection, and duty payments, aims for efficiency but can face delays due to regulatory issues. Compliance and enforcement are ensured through inspections, audits, and penalties, with continuous training for customs officers to handle evolving regulations. Additionally, trade facilitation initiatives, such as electronic customs systems and Authorised Economic Operator (AEO) programs, aim to streamline customs operations and support international trade. Accordingly, regulatory transparency is maintained through comprehensive information dissemination by the Jordan Customs Department and stakeholder consultations on proposed policy changes.

The efficiency and reliability of supply chains are crucial in the contemporary global economy, where businesses depend on the seamless flow of goods from manufacturers to consumers. Customs policies significantly influence the success of these supply chains by regulating the movement of goods across borders. In Jordan, customs policies are crafted to balance trade facilitation with protecting domestic interests and compliance with international standards. However, the complexity and implementation of these policies can profoundly impact the efficiency and competitiveness of supply chains. In addition, Jordan's strategic location at the crossroads of Asia, Africa, and Europe makes it a vital hub for international trade. The country's customs policies, while aimed at fostering a secure and compliant trade environment, can sometimes create challenges for businesses. Issues such as delays in clearance procedures, high compliance costs, and lack of regulatory transparency can hinder the smooth operation of supply chains. These challenges can lead to increased operational costs, reduced competitiveness, and a potential decline in foreign investment.

Customs policies in Jordan can significantly influence the ability and willingness of businesses to undertake sustainable initiatives, which in turn have the potential to improve the efficiency and sustainability of supply chains. While each of these policies, practices, and success metrics are critical as standalone strategies, a holistic assessment of their interdependencies in the Jordanian context is missing. However, current Jordanian customs policies limit the success of

supply chains and affect the growth of the Jordanian economy (Shubailat et al., 2024; 2024a; Jebril et al., 2024). The current body of research tends to emphasise piecemeal instead of comprehensive issues, hampering the development of policies with evidence to holistically improve supply chain performance and sustainability measures and foster economic development (e.g., Al-Zaqeba et al., 2022; Al-Zaqeba & Al-Rashdan, 2020b). Additionally, given the growing interest in customs policies, their relevance to supply chain outcomes is an essential line of inquiry (Liu et al., 2023; Sargent and Breese, 2023). Governments also need to find a cautious middle ground between protecting their economies through economic protectionism and being a part of an international trade system by being able to claim ownership of open, thoughtful, and adaptive attitudes toward policies. In particular, this support is vital for the development and sustainability of climate-proof supply chains and the economic development and well-being of all stakeholders (Suriyankietkaew & Nimsai, 2021; Mena et al., 2022). Moreover, businesses must be updated on these policies to make strategic supply chain decisions to utilise such incentives (Asare et al., 2020; Adams et al., 2023). Consequently, effectively competing in global supply chain challenges mandates the alignment of efforts between government and business (Goldsby et al., 2023; Kusiak, 2023). In conclusion, the interplay between customs policies and sustainable action has far-reaching implications for sustainability strategies and ethics in supply chains. Thus, after this introduction section of the manuscript, previous studies are presented supported by supporting arguments and evidence. We move to the study methodology in the third section, followed by the results and hypothesis testing section. Correspondingly, the fourth section discusses the results of previous literature with the results of this study and explains the importance of the study and the need to conduct this research. The manuscript ends with the conclusion section, focusing on the contributions of the manuscript, limitations, and future implications.

LITERATURE REVIEW

The Jordanian Customs Department plays a pivotal role in regulating and facilitating international trade, ensuring the country's economic stability, security, and compliance with global trade standards. Established as part of the government's efforts to modernise and streamline trade processes, the department is responsible for implementing customs policies that govern the import and export of goods. Remarkably, Jordanian customs policies have evolved over the years to address the complexities of global trade while safeguarding national interests (Muhammad et al., 2023). These policies encompass various activities, including tariff regulations, import and export restrictions, customs valuation, and clearance procedures. Hence, the primary objective of these policies is to facilitate trade, protect domestic industries, generate revenue, and ensure compliance with international trade agreements and standards.

The Jordan Customs Department employs a comprehensive approach to managing customs operations. This includes the use of advanced technology and electronic systems for processing customs declarations, inspections, and duty payments. Additionally, the department engages in continuous training and capacity-building programs for its officers to enhance their ability to handle evolving regulatory requirements and technological advancements. Trade facilitation initiatives, such as the implementation of AEO programs and participation in regional and international trade agreements, are integral to the department's strategy. These initiatives aim to streamline customs procedures, reduce clearance times, and improve regulatory transparency, thereby enhancing the overall efficiency and competitiveness of Jordanian supply chains. Through these efforts, the Jordan Customs Department seeks to balance the need for stringent security measures with the imperative of promoting a conducive environment for international trade and investment.

The Success of Supply Chain

Customs regulations exert a significant influence on the operational success of supply chains, and Jordan is no exception (Zaqeeba, 2024). However, examining Jordan's supply chain success is intricately connected to customs regulations, sustainable business practices, and other pertinent topics in the literature. Furthermore, the concept of sustainable supply chains underscores the integration of social, environmental, and economic factors to achieve long-term sustainability (Jarrah et al., 2022). Moreover, effective supply chain management practices are crucial for fostering sustainability in the global business environment and maintaining competitiveness. While numerous studies have explored critical success criteria for the adoption of technology and environmentally friendly supply chain practices, research on the precise relationship between customs policies and their impact on supply chain success remains limited (Al-Zaqeeba & Al-Rashdan, 2020a). In addition, Biswas et al. (2023) investigated critical success elements for the adoption of 5G technology in supply chains, emphasizing the necessity of utilizing cutting-edge technologies to enhance supply chain responsiveness and efficiency. However, the role of customs laws in either promoting or discouraging technological adoption within supply chains was not specifically addressed. Similarly, Iqbal et al. (2023) focused on elements contributing to energy-efficient practices. In addition, Vu et al. (2023) examined the use of blockchain in food supply chains. At the same time, Kessy et al. (2023) delved into lean thinking in medical commodities supply chains, highlighting the significance of lean principles in improving supply chain performance. Ali et al. (2023) explored knowledge management practices and risk management culture in supply chains to achieve resilience. Li et al. (2023) conducted a literature review on blockchain in food supply chains, while Grimm et al. (2023) employed an institutional entrepreneurship approach to investigate corporate sustainability criteria in multi-tier supply chains. Moreover, Chae et al. (2022) focused on the structural element of supply chains in the context of mergers and acquisitions. The potential effects of tax and customs rules on the success of such transactions and their impact on supply chain operations were not explored. However, the role of customs policies in shaping resilience strategies has yet to be explicitly investigated. Nevertheless, these studies collectively underscored the need for further research to fill the existing gaps and explore the potential effects of customs laws on supply chain success across various domains.

Customs Policies

Scholars and policymakers have devoted considerable attention to the study of customs laws within the context of supply chains. For example, van den Boogaard and Beach (2023) investigated how ineffective tax collection in rural regions affects supply chain management and economic growth, highlighting the significance of effective tax policies and governance frameworks. Cantens and Raballand (2021) emphasised the challenges faced by policymakers in implementing successful tax and customs policies in unstable contexts, contributing to a deeper understanding of the dynamics involved in such implementations. In addition, Sidorova and Goncharenko (2020) stressed the necessity of well-crafted tax rules to facilitate smooth cross-border trade and reduce costs, thereby enhancing Russia's international competitiveness. Additionally, Anda et al. (2020) provided insights into the evolution of customs regulations within the European Union (EU), demonstrating the impact of customs on trade flows, supply chain dynamics, and the competitiveness of the EU as a whole. Li (2019) examined the effects of tax and customs regulations on international e-commerce transactions in China's retail industry, highlighting how these regulations influence the growth and expansion of e-commerce supply chains. Collectively, these studies shed light on the multifaceted relationship between taxation, customs policies, and supply chain success, underscoring the need for further exploration in this field.

Policies of Customs Laws Toward Supply Chain Success

Research exploring the relationship between taxation, customs laws, and the success of supply chains remains relatively scarce, particularly concerning their implications for sustainability and government interventions. However, there are notable exceptions. For example, Souhli and En-Nadi (2023) conducted a literature review on factors influencing the adoption of Green Supply Chain Management (GSCM), shedding light on the complexities of the adoption of sustainable practices within supply chains. Amiri-Pebdani et al. (2022) utilised game theory to investigate the role of government interventions in shaping Time-Of-Use pricing in energy-sustainable supply chains, underscoring the multifaceted nature of government influence on supply chain dynamics.

Efficient supply chain management, in tandem with appropriate taxation and customs policies, is crucial for determining the success and competitiveness of supply chains. While studies by Brookbanks and Parry (2022), Raja Santhi and Muthuswamy (2022), and Kumar and Kumar Singh (2022) focused on trust-building mechanisms, blockchain adoption benefits, and resilience strategies respectively, they did not explicitly explore the role of taxation and customs regulations in shaping supply chain success. Similarly, research by Bressanelli et al. (2022), Carlan et al. (2022), and Chen et al. (2022) examined various aspects of supply chain dynamics such as Circular Economy impact, cost-effectiveness of blockchain applications, and blockchain governance, yet did not delve into the specific influence of taxation and customs policies. Zhou et al. (2021) explored the evolving functions of customs and the impact of carbon taxes on supply chains, respectively. Studies by Pan et al. (2015) and Grover and Dresner (2022) offered insights into e-commerce customs control, waste-to-energy supply chains for circular economy systems, and strategic alignment of supply chain tactics, respectively. However, they did not specifically address how customs rules influence supply chain strategies or competitiveness.

Epede and Wang's (2022) study on global value chain connections for Small and Medium-Sized Enterprises (SMEs) and Tiwari et al.'s (2023) exploration of blockchain technology in logistics provided valuable insights into supply chain dynamics. On the other hand, Tyagi (2023), Qader et al. (2023), Pennekamp et al. (2023), and Oh et al. (2023) proposed innovative solutions and frameworks for supply chain optimization. They did not explicitly address the role of customs policies in facilitating or hindering these advancements. However, while existing studies offer valuable insights into various aspects of supply chain management, there is a noticeable gap in the literature concerning the comprehensive analysis of customs policies in the specific context of Jordan. Thus, future research should aim to bridge this gap by investigating the mediating role of sustainable practices in the relationship between customs policies and supply chain success, thereby providing a deeper understanding of their interconnected dynamics.

Hypothesis Development

Drawing upon insights from existing literature, this section develops hypotheses to explore the relationships between customs policies, sustainable practices, and the success of supply chains within the Jordanian Customs Department. Moreover, the literature review highlights the pivotal role of customs policies in shaping the operational efficiency and competitiveness of supply chains (Al Rousan, 2024). Therefore, it is hypothesised that favourable customs policies within the Jordanian Customs Department will positively influence the overall success of supply chains operating in Jordan.

Previous research emphasises the significance of integrating sustainable practices within supply chains to achieve long-term viability and competitiveness (Jarrah et al., 2022). Building upon this, it is hypothesised that conducive customs policies will foster the adoption of sustainable practices, thereby enhancing the success of supply chains within the Jordanian Customs Department. In addition, studies have consistently demonstrated the benefits of sustainable practices in improving supply chain performance (Kumar & Kumar Singh, 2022). Therefore, it is hypothesised that implementing sustainable practices within supply chains operating in Jordan will positively impact their overall success within the customs department. Given the interdependence

between customs policies, sustainable practices, and supply chain success elucidated in the literature (Souhli and En-Nadi, 2023),

The Institutional Theory was used to understand how customs policies, as formal institutions, influence organizational behaviour and outcomes within supply chains. Institutional Theory posits that organizations are influenced by the rules, norms, and regulations established by institutional bodies (Rudko et al., 2024). Customs policies are regulatory frameworks that shape the practices and strategies of organizations involved in the supply chain. By adhering to these policies, organizations can achieve legitimacy and stability, which are crucial for supply chain success. In addition, the Resource-Based View Theory emphasises the role of internal resources and capabilities in achieving competitive advantage (Lau and Wong, 2024). In the context of supply chains, effective customs policies can be considered valuable resources that streamline operations, reduce delays, and enhance efficiency. This, in turn, contributes to the overall success of the supply chain by improving the flow of goods, reducing costs, and enhancing customer satisfaction. Thus, it is hypothesised that sustainable practices act as a mediator in the relationship between customs policies and supply chain success. Specifically, it is proposed that favourable customs policies will indirectly influence supply chain success through their impact on fostering sustainable practices within the Jordanian Customs Department. Accordingly, the following are the Hypotheses:

- H1:** Customs policies positively affect the success of supply chains in the Jordanian Customs Department.
- H2:** Customs policies positively affect the sustainable practices in Jordan toward the success of supply chains in the Jordanian Customs Department.
- H3:** Sustainable practices positively affect the success of supply chains in the Jordanian Customs Department.
- H4:** Sustainable practices mediate the relationships between customs policies and the success of supply chains in the Jordanian Customs Department.

Research Model

Previous research, in general, dealt with variables as parts, but not in the context of Jordan specifically. This research examines the unique regulatory, economic, and operating environments in Jordan. This paper is characterised by the recommendations and insights it provides that are actionable and tailored to meet the specific needs and circumstances of the Jordanian supply chain landscape, which may differ significantly from other regions previously studied. The study also adds to the empirical evidence base by providing quantitative data and analysis for the Jordanian Customs Service. The study delves into the mediating role of sustainable practices as they align with global sustainability goals, which has not been addressed in previous studies. Furthermore, the study relies on a group of theories to support the conceptual framework and hypotheses. This paper is also unique in using Smart PLS 4.0.1.3. However, building upon the hypotheses formulated in the hypothesis development section, the research model seeks to elucidate the relationships between customs policies, sustainable practices, and the success of supply chains within the Jordanian Customs Department. The model comprises four main constructs: customs policies, sustainable practices, supply chain success, and the mediating role of sustainable practices, as in Figure 1.

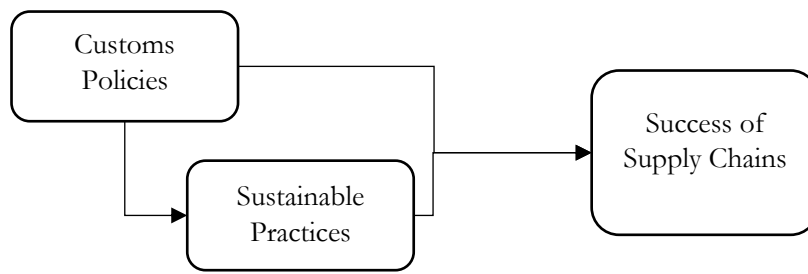


Figure 1: Research framework

METHODOLOGY

This study examines the impact of customs policies in the Jordanian Customs Department on the success of supply chains. Moreover, this paper used a quantitative method survey. The collection of data was conducted using questionnaires. The surveys included a range of questions meant to assess customs policies and their perceived effectiveness, using a five-point Likert scale for all response items. All elements employed in the study were the adoption of customs policy items from Shubailat et al. (2024a) and Shubailat et al. (2024b). The items of supply chain success were adapted from Al-Taani et al. (2024) and Jebril et al. (2024). According to the latest data from the Jordanian Customs Department (2024), the department employs approximately 3,619 people, including 219 females and 3,400 males. There are 276 employees in Jordan working at customs offices and checkpoints: these employees are responsible for everything related to customs procedures, including document processing, physical inspections, and compliance enforcement.

The study also employed a simple form of random sampling to ensure equal probability of selection (thereby minimizing selection bias) in order to obtain an adequate sample size. A large number of the total customs workforce (189) participated in the survey. This paper utilised this sample size for valid statistical reasons to produce a reliable and accurate sampling of a large population and, as such, be reasonably generalizable. The random sample approach was adopted to ensure the absence of any bias in representing aspects other than a realistic demographic and profile similar to the rest of the larger customs employee population. This enables a fine-grained analysis of responses using a five-point Likert questionnaire scale to measure the impact of customs policies on a full scale. Moreover, the sample size is large enough not only to identify meaningful trends and correlations in the data, but the sample is also representative. As a result, a total of 189 responses were collected, of which 181 were valid for statistical analysis; eight responses were excluded due to the presence of outliers. Consequently, the data was analysed using Smart PLS 4.1.0.3, a statistical software tool used to evaluate and assess relationships and mediation effects within the data.

RESULT

A path coefficient study was conducted to assess the impact of customs regulations on supply chain performance. Figure 2 graphically represents the path coefficients illustrating these associations.

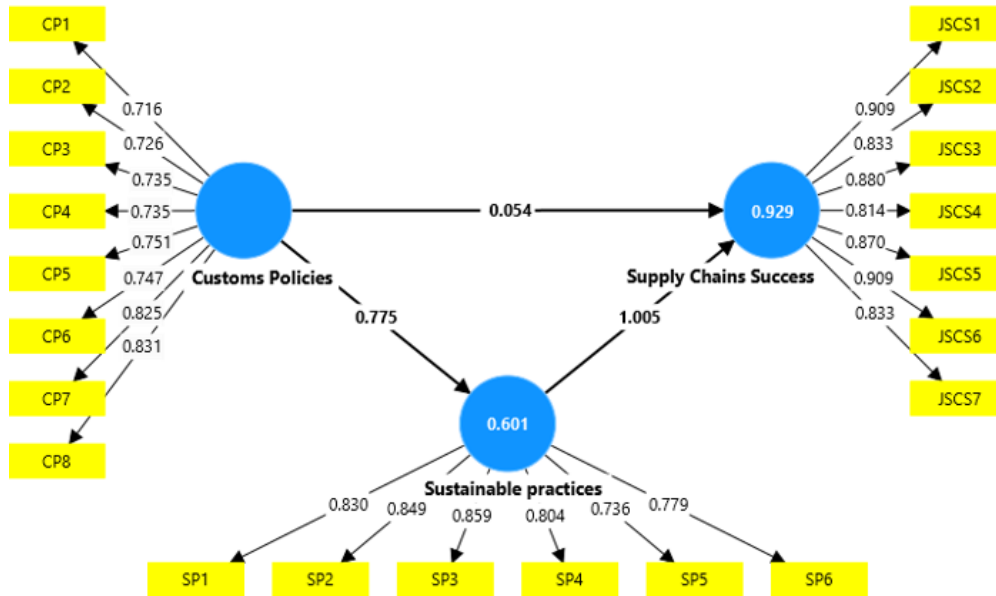


Figure 2: Validity results

The figure presented above, denoted as Figure 2, delineates the path coefficients characterizing the relationship between customs policies and the success of supply chains. These coefficients serve as indicators of the strength and direction of the associations between the variables under consideration. Nevertheless, it is essential to note that although most study variable indicators exhibit outer loading values of more than 0.7, certain indicators continue to exhibit values below this cut-off. Lootah (2024) stated that outer loading levels between 0.5 and 0.6 are considered enough to meet the convergent validity requirement. Since none of the variable indicators falls below the 0.5 criterion, the observed outer loading values imply that all indicators are still appropriate for research and call for more study.

Similarly, a number of measures, including Cronbach’s Alpha, composite reliability, and Average Variance Extracted (AVE), are used to evaluate the reliability of the variables listed in Table 1. These metrics are used to assess the constructs analysed inside the Structural Equation Modeling-Partial Least Squares (SEM-PLS) framework for convergent validity, general reliability, and internal consistency. The composite reliability values over 0.70, strong Cronbach’s Alpha coefficients, and acceptable average extracted variance all suggest that the constructs listed in Table 1 are reliable and consistent enough for the SEM-PLS investigation. These methodological procedures guarantee the accuracy, consistency within the study, and dependability of the underlying ideas necessary for interpreting and analysing the research findings.

Table 1: Reliability Testing

	Cronbach’s Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Supply Chains Success	0.943	0.943	0.954	0.748
Customs Policies	0.895	0.898	0.916	0.577
Sustainable practices	0.895	0.901	0.920	0.657

R² values are numerical measures from 0 to 1, offering information about the degree of correlation and effect size in a statistical model. Greater influence and a stronger connection are indicated by higher R² values, whereas smaller values suggest a weaker association and less impact. This study uses a categorization approach that assigns a fit score of “weak,” “moderate,” or

“good,” depending on particular R^2 criteria in order to assess the model fit objectively. A weak fit is defined as having a value of 0.19, indicating little explanatory power and little influence. A moderate fit, suggesting a moderate degree of explanatory power and impact inside the model, is indicated by a value of 0.33. On the other hand, a score of 0.67 suggests a good fit, emphasizing a robust association and significant influence within the framework under analysis. These classifications make it possible to evaluate model performance in a more sophisticated way, making it easier to understand and put research results into perspective.

Table 2: R^2 results

	R-square	R-square adjusted
Sustainable practices	0.601	0.599
Supply Chains Success	0.929	0.928

In Table 2, the R^2 results of the variables “Supply Chains Success” and “Sustainable Practices” are exposed. The R^2 value for the variable “Supply Chains Success” is 0.929. This suggests that up to 92.9% of the variance or fluctuations in the supply chain performance data could be explained by the independent variables in the regression model. The number suggests that the variables considered in the model (i.e., customs policies, sustainable practices, and other contingent variables) jointly explain 92.9% of the variation of supply chain success. The adjusted R^2 is slightly lower at 0.928. However, considering the number of predictors in the model, it is a more reliable estimate of how much variability is accounted for in the dependent variable. Likewise, for the variable Sustainable Practices, $R^2 = 0.601$. This indicates that some 60.1% of the variation that measured sustainable practices was explained by including independent variables in the regression model. Specifically, variables such as customs policies and other determinants accounted for 60.1% of the variability in the adoption of sustainable practices. The R^2 measures how well the model fits the data; in this case, $R^2 = 0.602$, indicating that the two predictors combined explained 60.2% of the variance. The adjusted R^2 is a modified form of R^2 adjusted for the number of predictors in the model. Figure 3 below displays hypothesis testing results.

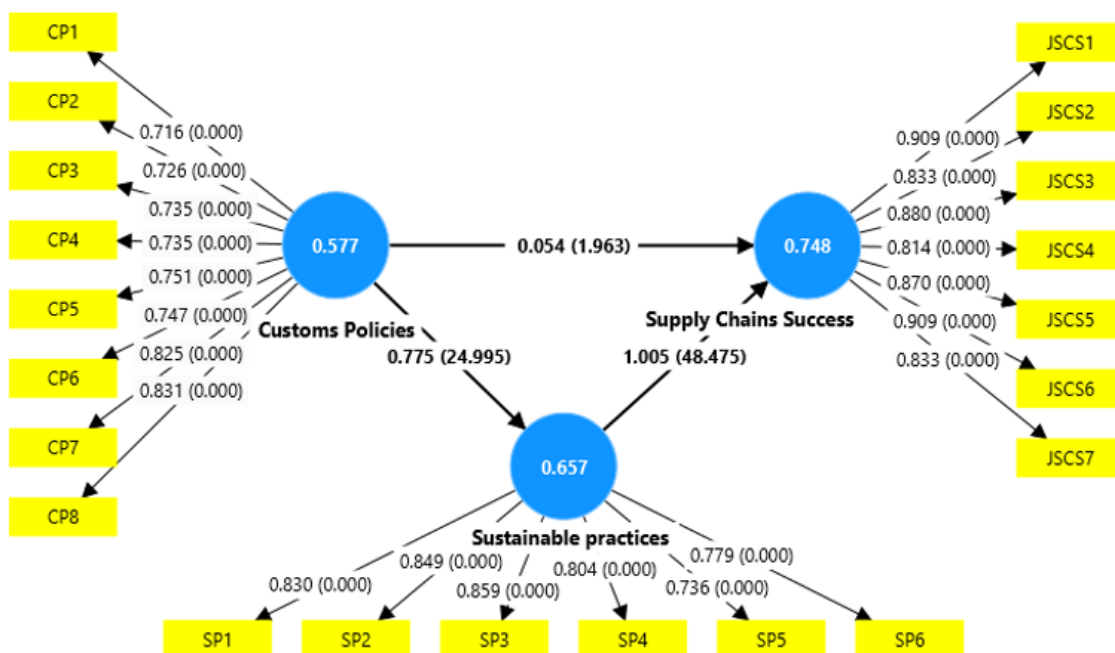


Figure 3: Hypothesis testing results

Table 3 and Figure 3 present the outcomes of hypothesis testing concerning direct effects, offering a comprehensive analysis of the relationships between variables. By scrutinizing the observed direct effects, researchers can discern whether the study hypotheses have been corroborated or refuted. In addition, this tabular representation serves as a valuable aid in comprehending the study's findings, facilitating a deeper understanding of the conclusions derived from the hypothesis testing process.

Table 3: Hypothesis-Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Customs Policies -> Supply Chains Success	0.725	0.726	0.038	19.342	0.000
Customs Policies -> Sustainable practices	0.775	0.776	0.031	24.995	0.000
Sustainable Practices -> Supply Chains Success	1.005	1.005	0.021	48.475	0.000
Customs Policies -> Sustainable Practices -> Supply Chains Success	0.779	0.780	0.034	23.126	0.000

As observed in Table 3 above, the hypothesis testing results. For H1: “Customs policies positively affect the success of supply chains in the Jordanian Customs Department.” The results indicate a significant positive relationship between customs policies and supply chain success, as evidenced by a high T statistic of 19.342 and a corresponding p-value of 0.000. This suggests strong statistical evidence supporting the hypothesis that favourable customs policies contribute to the success of supply chains within the Jordanian Customs Department. Regarding H2: “Customs policies positively affect sustainable practices in Jordan toward the success of supply chains in the Jordanian Customs Department.” Similarly, a significant positive relationship exists between customs policies and sustainable practices, with a T statistic of 24.995 and a p-value of 0.000. These findings support the hypothesis that customs policies play a crucial role in promoting sustainable practices, which, in turn, contribute to the success of supply chains within the Jordanian Customs Department. For H3: “Sustainable practices positively affect the success of supply chains in the Jordanian Customs Department.” The results reveal a substantial positive relationship between sustainable practices and supply chain success, with a high T statistic of 48.475 and a p-value of 0.000. This provides robust evidence in support of the hypothesis that adopting sustainable practices is conducive to enhancing the success of supply chains within the Jordanian Customs Department. Lastly, for H4: “Sustainable practices mediate the relationships between customs policies and the success of supply chains in the Jordanian Customs Department.” The analysis demonstrates a significant indirect effect of customs policies on supply chain success mediated by sustainable practices, as indicated by the T statistic of 23.126 and a p-value of 0.000. This suggests that sustainable practices serve as a mediator in the relationship between customs policies and supply chain success, providing empirical support for hypothesis H4. This is attributed to the fact that (Customs Policies -> Sustainable practices -> Supply Chains Success) is significant ($\beta = 0.779$, $T > 1.96$, and $P = 0.000$).

The significant positive relationship observed between customs policies and supply chain success corroborates findings from prior research (Al-Zaqeba & Al-Rashdan, 2020b). Effective customs policies play a crucial role in facilitating trade processes and enhancing supply chain efficiency. This aligns with literature emphasizing the impact of regulatory frameworks on supply chain performance (Li, 2019). In addition, the strong positive relationship between customs policies and sustainable practices is consistent with previous studies (Adams et al., 2023).

Additionally, regulatory measures that incentivise sustainable initiatives can promote environmentally responsible practices within supply chains. This finding resonates with research highlighting the role of policy interventions in fostering sustainability (Bressanelli et al., 2022). Moreover, the substantial positive relationship between sustainable practices and supply chain success aligns with prior literature (Grimm et al., 2023). Notably, integrating sustainability into supply chain operations can lead to enhanced efficiency, reduced costs, and improved reputation, ultimately contributing to greater supply chain success. These findings underscore the importance of sustainability in driving competitive advantage (Ali et al., 2023). Lastly, the significant indirect effect of customs policies on supply chain success mediated by sustainable practices highlights the intermediary role of sustainability, consistent with previous research (Oh et al., 2023). Thus, by promoting sustainable initiatives, customs policies can indirectly enhance supply chain performance, supporting economic growth and competitiveness. Moreover, this finding underscores the importance of aligning policy measures with sustainability goals (Zhou et al., 2021).

Customs policies regulate the movement of goods across borders, ensuring compliance with national and international trade laws. Effective customs policies facilitate smooth and efficient customs clearance processes, reduce bureaucratic delays, and minimise the risk of non-compliance penalties. This directly impacts the operational efficiency and reliability of supply chains. In addition, sustainable practices in supply chain management, such as reducing carbon footprints and promoting eco-friendly logistics, can mediate the relationship between customs policies and supply chain success. Customs policies that support and incentivise sustainable practices can lead to more efficient and environmentally friendly supply chains. For instance, policies that expedite clearance for companies adhering to green practices can enhance supply chain performance. The findings of this paper indicate that customs policies significantly impact the success of supply chains and highlight the mediating role of sustainable practices, aligning well with Institutional Theory, as the study's findings support the notion that customs policies, as institutional regulations, play a crucial role in shaping the practices and success of supply chains. By aligning with customs policies, organizations can achieve operational efficiency and compliance, which are essential for supply chain success. In addition, the Resource-Based View is related to the positive impact of customs policies on supply chain success, underscoring the importance of viewing these policies as strategic resources. Hence, efficient customs policies can be leveraged as competitive advantages that enhance the overall performance and sustainability of supply chains.

CONCLUSION

This study examines the impact of customs policies in the customs department on the success of supply chains: evidence from Jordan. However, based on these hypotheses and the literature, there are several important conclusions: First, customs policy is positively related to supply chain success and the adoption of sustainable practices. As a result, regulatory frameworks play a crucial role in influencing the supply chain structure and supporting sustainability. Secondly, sustainable practices were an essential determinant of supply chain success as the positive relationship of these variables with each other was discovered to be quite strong. Correspondingly, incorporating sustainability into supply chain operations was demonstrated to improve operational efficiency, reduce cost, and enhance overall performance. The results also revealed that sustainable practices significantly mediate the relationship between customs policies and supply chain success. Promoting sustainability, therefore, indicates a combined improvement for both customs policies and supply chain performance, demonstrating the interconnected nature of policy interventions with sustainability outcomes. Additionally, empirical evidence was collected to support the relationships between customs policies, sustainable practices, and sustainable success through the results of the hypothesis testing. These discoveries enhance the study of supply chain performance

determinants and underline the great significance of policy measures and sustainability initiatives in effectively managing work within the Jordan Customs Service. This emphasises the clear role of customs policies in attaining supply chain success for governments and policymakers and, therefore, requires ongoing steps to reform and modernise customs regulations. Policymakers should also work to develop streamlined, transparent, and efficient customs procedures that reduce bureaucratic delays and increase compliance. Moreover, the mediating effect of sustainable practices aligns with the view that customs policies are required to promote and sustain the deployment of environmentally friendly and efficient supply chain practices. This includes tax subsidies, expedited processing for clean logistics, and rules that support renewable energy in transport. However, at the top of the list for businesses and supply chain managers is customs compliance to avoid costly delays and penalties, efficient customs processes within their operations to keep products in the pipeline, and green technologies and sustainable practices to improve the performance of their supply chains. Thus, it would be worthwhile for academicians to investigate the particular ways in which customs policies influence the success of supply chains and how sustainability enters the equation.

To address these implications, several suggestions are offered. Governments and policymakers should conduct regular reviews and reforms of customs policies to ensure they meet international standards and facilitate trade, incorporate business feedback to address bottlenecks and inefficiencies and invest in training programs for customs officials to reduce delays and improve efficiency. Furthermore, developing incentives for companies that adopt sustainable practices and encouraging collaboration between government bodies and industry players to promote sustainability in supply chains are also crucial. Hence, businesses and supply chain managers should implement robust compliance management systems, utilise technology to streamline documentation and clearance processes, and adopt sustainable supply chain practices such as reducing carbon footprints and using renewable energy sources. In addition, establishing strong relationships with customs authorities and participating in government-industry advisory groups can provide valuable feedback and stay informed about regulatory changes. Thus, academicians and researchers should expand their research scope to explore the impact of specific customs policies on different aspects of supply chain performance, investigate the long-term effects of sustainable practices, and encourage interdisciplinary research that combines insights from supply chain management, environmental science, and public policy. Moreover, collaborating with industry partners can ensure that research findings are practical and applicable, enhancing the relevance and impact of academic studies on real-world supply chain challenges. By addressing these implications and suggestions, stakeholders can enhance the effectiveness of customs policies, promote sustainable practices, and ultimately improve the overall success of supply chains in Jordan. Notably, the findings of this paper are specific to Jordan and may not apply to other industries or regions. Cross-sectional data was also used in the study, restricting the causal inferences that could be made. Therefore, future research may be designed by focusing on long-term data analysis so that a longitudinal perspective can be taken to further understand the customs policies and sustainable practices that might have long-lasting implications on supply chain performance. In addition, comparing countries or industries would help understand the contingencies affecting policy features as well as the influence of policy interventions on the success of the supply chain.

ACKNOWLEDGEMENT

This paper is self-funded since this article is not funded by any grant.

REFERENCES

- Adams, D., Donovan, J., & Topple, C. (2023). Sustainability in large food and beverage companies and their supply chains: An investigation into key drivers and barriers affecting sustainability strategies. *Business Strategy and the Environment*, 32(4), 1451–1463. <https://doi.org/10.1002/bse.3198>
- Al Rousan, S. R. (2024). Green Human Resource Management Towards Digital Transformation in Municipalities in Irbid Governorate. *International Journal of Digital Accounting and Fintech Sustainability*, 1(1), 26–37. <https://tanmeah.com/wp-content/uploads/2024/08/PAPER-3-TBP.pdf>
- Ali, I., Golgeci, I., & Arslan, A. (2023). Achieving resilience through knowledge management practices and risk management culture in agri-food supply chains. *Supply Chain Management: An International Journal*, 28(2), 284–299. <https://doi.org/10.1108/SCM-02-2021-0059>
- Al-Taani A. H. M, Al-Zaqeba M. A. A., Maabreh H. M. A., & Jarah B. A. F. (2024). Exploring the impact of digital accounting and digital zakat on improving business sustainability in the Middle East and Malaysia. *International Journal of Advanced and Applied Sciences*, 11(1), 56–67. <https://doi.org/10.21833/ijaas.2024.01.007>
- Al-Zaqeba, M. A. A., & Al-Rashdan, M. T. (2020a). Extension of the TPB in tax compliance behavior: The role of moral intensity and customs tax. *International Journal of Scientific & Technology Research*, 9(4), 227–232. <https://ssrn.com/abstract=3614313>
- Al-Zaqeba, M. A. A., & Al-Rashdan, M. T. (2020b). The effect of attitude, subjective norms, perceived behavioral control on tax compliance in Jordan: The moderating effect of customs tax. *International Journal of Scientific & Technology Research*, 9(4), 232–248. <https://ssrn.com/abstract=3614298>
- Al-Zaqeba, M., Ineizeh, N., Jarah, B., Hamour, H. M. J. A., & Zeyad, Z. (2022). Intelligent matching: Supply chain management and financial accounting technology. *Uncertain Supply Chain Management*, 10(4), 1405–1412. <https://doi.org/10.5267/j.uscm.2022.6.016>
- Al-Zoubi, M. A. K., & Alkassaabeh, F. Y. (2024). The Prohibition of Claim Suit and its Procedural Effect on Customs Duties and Fines in the Jordanian Customs Law. *Journal of Language and Linguistic Studies*, 19(4), 1–29. <https://doi.org/10.55908/sdgs.v12i4.3567>
- Amiri-Pebdani, S., Alinaghian, M., & Safarzadeh, S. (2022). Time-Of-Use pricing in an energy sustainable supply chain with government interventions: A game theory approach. *Energy*, 255. <https://doi.org/10.1016/j.energy.2022.124380>
- An, H., Razaq, A., Nawaz, A., Noman, S. M., & Khan, S. A. R. (2021). Nexus between green logistic operations and triple bottom line: evidence from infrastructure-led Chinese outward foreign direct investment in Belt and Road host countries. *Environmental Science and Pollution Research*, 28(37), 51022–51045. <https://doi.org/10.1007/s11356-021-12470-3>
- Anda, G. H. I. R. A. N., Anna, H. A. K. A. M. I., Laurent, B. O. N. T. O. U. X., & Fabiana, S. C. A. P. O. L. O. (2020). *The Future of Customs in the EU 2040: A foresight project for EU policy*. Publications Office of the European Union. <https://doi.org/10.2760/29195>
- Asare, A. O., Addo, P. C., Sarpong, E. O., & Kotei, D. (2020). COVID-19: Optimizing business performance through agile business intelligence and data analytics. *Open Journal of Business and Management*, 8(5), 2071–2080. <https://doi.org/10.4236/ojbm.2020.85126>
- Biswas, S., Sanyal, A., Božanić, D., Puška, A., & Marinković, D. (2023). Critical success factors for 5G technology adaptation in supply chains. *Sustainability* 2023, 15, 1–23. <https://doi.org/10.3390/su15065539>
- Bressanelli, G., Visintin, F., & Sacconi, N. (2022). Circular Economy and the evolution of industrial districts: A supply chain perspective. *International Journal of Production Economics*, 243, 1–11. <https://doi.org/10.1016/j.ijpe.2021.108348>

- Brookbanks, M., & Parry, G. (2022). The impact of a blockchain platform on trust in established relationships: a case study of wine supply chains. *Supply Chain Management: An International Journal*, 27(7), 128–146. <https://doi.org/10.1108/SCM-05-2021-0227>
- Cantens, T., & Raballand, G. (2021). *Taxation and customs reforms in fragile states: Between bargaining and enforcement* [Working Paper]. Institute of Development Studies, Brighton BN1 9RE, UK. <https://doi.org/10.19088/ICTD.2021.009>
- Carlan, V., Sys, C., & Vanelslander, T. (2022). Cost-effectiveness and gain-sharing scenarios for purchasing a blockchain-based application in the maritime supply chain. *European Transport Research Review*, 14(1), 1–19. <https://doi.org/10.1186/s12544-022-00545-2>
- Chae, S., Son, B. G., Yan, T., & Yang, Y. S. (2022). Supply chains and the success of M&As: Investigating the effect of structural equivalence of merging firms' supplier and customer bases. *International Journal of Operations & Production Management*, 42(8), 1272–1293. <https://doi.org/10.1108/IJOPM-12-2021-0745>
- Chen, W., Botchie, D., Braganza, A., & Han, H. (2022). A transaction cost perspective on blockchain governance in global value chains. *Strategic Change*, 31(1), 75–87. <https://doi.org/10.1002/jsc.2487>
- Epede, M. B., & Wang, D. (2022). Global value chain linkages: An integrative review of the opportunities and challenges for SMEs in developing countries. *International Business Review*, 31(5), 1–12. <https://doi.org/10.1016/j.ibusrev.2022.101993>
- Goldsby, T. J., Hoang, T. T., Stank, T. P., & Bell, J. E. (2023). A Modernised Framework for Transportation Decision-Making in a Hyper-Integrated Global Supply Chain Environment. *Transportation Journal*, 62(1), 16–42. <https://doi.org/10.5325/transportationj.62.1.0016>
- Grimm, J. H., Hofstetter, J. S., & Sarkis, J. (2023). Corporate sustainability standards in multi-tier supply chains—an institutional entrepreneurship perspective. *International journal of production research*, 61(14), 4702–4724. <https://doi.org/10.1080/00207543.2021.2017053>
- Grover, A. K., & Dresner, M. (2022). A theoretical model on how firms can leverage political resources to align with supply chain strategy for competitive advantage. *Journal of Supply Chain Management*, 58(2), 48–65. <https://doi.org/10.1111/jscm.12284>
- Iqbal, M., Ma, J., Ahmad, N., Ullah, Z., & Hassan, A. (2023). Energy-Efficient supply chains in construction industry: An analysis of critical success factors using ISM-MICMAC approach. *International Journal of Green Energy*, 20(3), 265–283. <https://doi.org/10.1080/15435075.2022.2038609>
- Jarah, B. A. F., AL Jarrah, M. A., Al-Zaqeba, M. A. A., & Al-Jarrah, M. F. M. (2022). The role of internal audit to reduce the effects of creative accounting on the reliability of financial statements in the Jordanian Islamic banks. *International Journal of Financial Studies*, 10(3), 1–16. <https://doi.org/10.3390/ijfs10030060>
- Jebril, I., Al-Zaqeba, M., Al-Khawaja, H., Obaidy, A., & Marashdah, O. (2024). Enhancing estate governance using blockchain technology through risk management in estate governance of business sustainability. *International Journal of Data and Network Science*, 8(3), 1649–1658. <https://doi.org/10.5267/j.ijdns.2024.3.002>
- Kessy, S. S. A., Salema, G. L., & Simwita, Y. (2023). Lean thinking in medical commodities supply chains: applicability and success factors for Tanzanian health supply chains. *Journal of Humanitarian Logistics and Supply Chain Management*, 14(1), 105–117. <https://doi.org/10.1108/JHLSCM-05-2022-0058>
- Kumar, P., & Kumar Singh, R. (2022). Strategic framework for developing resilience in Agri-Food Supply Chains during COVID 19 pandemic. *International Journal of Logistics Research and Applications*, 25(11), 1401–1424. <https://doi.org/10.1080/13675567.2021.1908524>
- Kusiak, A. (2023). Smart manufacturing. *Springer Handbook of Automation* (pp. 973–985). Springer. https://doi.org/10.1007/978-3-030-96729-1_45

- Lau, C. C., & Wong, C. W. (2024). Achieving sustainable development with sustainable packaging: A natural-resource-based view perspective. *Business Strategy and the Environment*, 33(5), 4766–4787. <https://doi.org/10.1002/bse.3720>
- Li, K., Lee, J. Y., & Gharehgozli, A. (2023). Blockchain in food supply chains: A literature review and synthesis analysis of platforms, benefits and challenges. *International Journal of Production Research*, 61(11), 3527–3546. <https://doi.org/10.1080/00207543.2021.1970849>
- Li, X. (2019). Understanding tax and customs policies for retail import cross-border e-commerce in China. *World Customs Journal*, 13(2), 23–36. <https://doi.org/10.55596/001c.116212>
- Liu, J., Zhang, H., & Zhen, L. (2023). Blockchain technology in maritime supply chains: Applications, architecture and challenges. *International Journal of Production Research*, 61(11), 3547–3563. <https://doi.org/10.1080/00207543.2021.1930239>
- Lootah, R.E.A. (2024). The Impact of Blockchain Technology on Financial Reporting Practices in UAE. *International Journal of Digital Accounting and Fintech Sustainability*, 1(1), 2–12. <https://tanmeah.com/wp-content/uploads/2024/07/PAPER-1-TBP-1.pdf>
- Maabreh, H. M. A. (2024). The Role of Financial Technology (Fintech) in Promoting Financial Inclusion: A Literature Review. *International Journal of Digital Accounting and Fintech Sustainability*, 1(1), 13–25. <https://tanmeah.com/wp-content/uploads/2024/08/PAPER-2-TBP.pdf>
- Malatji, M. (2023). Accelerating the African continental free trade area through optimization of digital supply chains. *Engineering Reports*, 6(2), 1–20. <https://doi.org/10.1002/eng2.12711>
- Men, F., Yaqub, R. M. S., Yan, R., Irfan, M., & Haider, A. (2023). The impact of top management support, perceived justice, supplier management, and sustainable supply chain management on moderating the role of supply chain agility. *Frontiers in Environmental Science*, 10, 1–19. <https://doi.org/10.3389/fenvs.2022.1006029>
- Mena, C., Karatzas, A., & Hansen, C. (2022). International trade resilience and the Covid-19 pandemic. *Journal of Business Research*, 138, 77–91. <https://doi.org/10.1016/j.jbusres.2021.08.064>
- Muhammad, T., Al-Shaghdari, F., & Ibrahim, S. M. (2023). Islamic social finance in addressing poverty reduction and economic growth: Using structural equation modeling. *The Journal of Muamalat and Islamic Finance Research*, 20(2), 179–191. <https://doi.org/10.33102/jmifr.529>
- Nze-Ekpebie, R., & Nze-Ekpebie, K. (2023). The legal interface between sustainability and supply chain management. *SSRN*, 1–20. <https://ssrn.com/abstract=4483150>
- Oh, J., Choi, Y., & In, J. (2023). A conceptual framework for designing blockchain technology enabled supply chains. *International Journal of Logistics Research and Applications*, 26(10), 1315–1333. <https://doi.org/10.1080/13675567.2022.2052824>
- Pan, S. Y., Du, M. A., Huang, I. T., Liu, I. H., Chang, E. E., & Chiang, P. C. (2015). Strategies on implementation of waste-to-energy (WTE) supply chain for circular economy system: a review. *Journal of cleaner production*, 108, 409–421. <https://doi.org/10.1016/j.jclepro.2015.06.124>
- Pennekamp, J., Matzutt, R., Klinkmüller, C., Bader, L., Serror, M., Wagner, E., ... & Wehrle, K. (2023). An Interdisciplinary Survey on Information Flows in Supply Chains. *ACM Computing Surveys*, 56(2), 1–38. <https://doi.org/10.1145/3606693>
- Qader, G., Shahid, Z. A., Junaid, M., Shaikh, I. M., & Qureshi, M. A. (2023). The role of diffusion of innovation theory towards the adoption of halal meat supply chain. *Journal of Islamic Marketing*, 14(5), 1211–1228. <https://doi.org/10.1108/JIMA-01-2021-0032>
- Raja Santhi, A., & Muthuswamy, P. (2022). Influence of blockchain technology in manufacturing supply chain and logistics. *Logistics*, 6(1), 1–22. <https://doi.org/10.3390/logistics6010015>
- Rudko, I., Bashirpour Bonab, A., Fedele, M., & Formisano, A. V. (2024). New institutional theory and AI: toward rethinking of artificial intelligence in organizations. *Journal of Management*

- History*, 1–31. https://biopen.bi.no/bitstream/handle/11250/3129186/bonab_2024.pdf?sequence=5&isAllowed=y
- Sargent, C. S., & Breese, J. L. (2023). Blockchain barriers in supply chain: A literature review. *Journal of Computer Information Systems*, 64(1), 124–135. <https://doi.org/10.1080/08874417.2023.2175338>
- Shubailat, O. M., Al-Zaqeba, M. A. A., Madi, A., & Khairi, K. F. (2024a). Investigation the effect of digital taxation and digital accounting on customs efficiency and port sustainability. *International Journal of Data and Network Science*, 8(1), 61–68. <https://doi.org/10.5267/j.ijdns.2023.10.017>
- Shubailat, O., Al-Zaqeba, M., Madi, A., & Ababneh, A. (2024b). Customs intelligence and risk management in sustainable supply chain for general customs department logistics. *Uncertain Supply Chain Management*, 12(1), 387–398. <http://dx.doi.org/10.5267/j.uscm.2023.9.013>
- Sidorova, E. Y., & Goncharenko, L. I. (2020). Tax regulation of customs payments in the state policy of Russia. In: Bogoviz, A., Ragulina, Y. (Eds.), *Industry Competitiveness: Digitalization, Management, and Integration*, (Vol. 115, pp. 636–642). Springer, Cham. https://doi.org/10.1007/978-3-030-40749-0_76
- Souhli, K. A., & En-Nadi, A. B. D. E. L. A. L. I. (2023). Review of the Literature on the Sensitivity Factors to the GSCM (Green Supply Chain Management) Adoption. *Journal of Sustainability Science and Management*, 18(3), 196–217. <https://doi.org/10.46754/jssm.2023.03.014>
- Suriyankietkaew, S., & Nimsai, S. (2021). COVID-19 Impacts and Sustainability Strategies for Regional Recovery in Southeast Asia: Challenges and Opportunities. *Sustainability*, 13(16), 1–28. <https://doi.org/10.3390/su13168907>
- Tiwari, S., Sharma, P., Choi, T. M., & Lim, A. (2023). Blockchain and third-party logistics for global supply chain operations: Stakeholders' perspectives and decision roadmap. *Transportation Research Part E: Logistics and Transportation Review*, 170, 1–19. <https://doi.org/10.1016/j.tre.2022.103012>
- Tyagi, K. (2023). A global blockchain-based agro-food value chain to facilitate trade and sustainable blocks of healthy lives and food for all. *Humanities and Social Sciences Communications*, 10(1), 1–12. <https://doi.org/10.1057/s41599-023-01658-2>
- Van den Boogaard, V., & Beach, R. (2023). Tax and governance in rural areas: The implications of inefficient tax collection. *Journal of International Development*, 35(7), 1892–1912. <https://doi.org/10.1002/jid.3756>
- Vu, N., Ghadge, A., & Bourlakis, M. (2023). Blockchain adoption in food supply chains: A review and implementation framework. *Production Planning & Control*, 34(6), 506–523. <https://doi.org/10.1080/09537287.2021.1939902>
- Wang, Y., Han, J. H., & Beynon-Davies, P. (2019). Understanding blockchain technology for future supply chains: A systematic literature review and research agenda. *Supply Chain Management: An International Journal*, 24(1), 62–84. <https://doi.org/10.1108/SCM-03-2018-0148>
- Zaqeba, N. (2024). The scope of AI applications to tax evasion in enhancing tax enforcement capabilities. *International Journal of Digital Accounting and Fintech Sustainability*, 1(2), 1–16. <https://tanmeah.com/wp-content/uploads/2024/10/TBP-Template-Nidal-Zaqeba.pdf>
- Zhou, X., Wei, X., Lin, J., Tian, X., Lev, B., & Wang, S. (2021). Supply chain management under carbon taxes: A review and bibliometric analysis. *Omega*, 98, 1–16. <https://doi.org/10.1016/j.omega.2020.102295>