The Impact of Digital Technology Adoption on Supply Chain Performance: A Case Study of Sonatrach

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Abstract:

This study rigorously examines the transformative impact of digital technology adoption on supply chain performance within the specific context of Sonatrach, Algeria. It directly addresses the pivotal question of how the strategic integration of advanced digital technologies reshapes performance outcomes. A quantitative, correlational research design is employed, analyzing survey data from 150 supply chain management professionals at Sonatrach. Pearson's correlation and regression techniques rigorously assess the relationships between adoption levels of IoT, remote sensing, Big Data analytics, and ERP systems and key performance indicators. The findings emphatically demonstrate significant, positive correlations between Big Data analytics and ERP adoption and enhanced supply chain performance. These results underscore the crucial role of data-driven decision-making and integrated systems, while also revealing vital areas for optimized IoT deployment strategies to maximize their potential.

Keywords: Digital technology adoption; Supply chain performance; IoT and remote sensing; Big Data analytics; ERP systems.

Jel Classification Codes : O33; L86; C51.

ملخص:

تدرس هذه الدراسة تأثير تبني التقنيات الرقمية على أداء سلاسل الإمداد داخل السياق الخاص بشركة Sonatrach في الجزائر بشكل دقيق وشامل. وتتطرق مباشرة إلى السؤال الأساسي حول كيفية إعادة تشكيل النتائج الأدائية من خلال التكامل الاستراتيجي للتقنيات الرقمية المتطورة. تم استخدام تصميم بحث كمي تباين، حيث تم تحليل بيانات استطلاع شملت 150 من محترفي إدارة سلاسل الإمداد في Sonatrach. وقد تم تقييم العلاقات بين مستويات تبني تقنيات الإنترنت للأشياء (IoT)، والاستشعار عن بُعد، وتحليلات البيانات الضخمة، وأنظمة تخطيط موارد المؤسسات (ERP) ومؤشرات الأداء الرئيسية باستخدام تقنيات ارتباط بيرسون والانحدار. تُظهر النتائج بشكل واضح وجود علاقات ارتباط إيجابية كبيرة بين تبني تحليلات البيانات الضخمة وأنظمة ERP وبين تحسين أداء سلاسل الإمداد. تؤكد هذه النتائج الدور الحاسم لاتخاذ القرارات المبنية على البيانات والأنظمة المتكاملة، كما تكشف عن مجالات حيوية لتحسين استراتيجيات تنفيذ تقنيات الإنترنت للأشياء لتعظيم إمكاناتها.

الكلمات المفتاح : تقنية رقمية؛ أداء سلسلة إمداد؛ إنترنت أشياء واستشعار عن بُعد؛ تحليل بيانات ضخمة؛ نظام تخطيط موارد مؤسسة.

تصنيف JEL : O33; L86; C51.

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I. Introduction:

The relentless integration of innovative technologies to enhance supply chain performance is a defining characteristic of the modern digital era. Organizations are increasingly seeking to reshape operations and achieve superior agility and strategic benefits through the adoption of advanced systems such as remote sensing, Big Data analytics, and Enterprise Resource Planning (ERP) platforms (Shahadat et al., 2023). Empirical evidence confirms that such technology adoption strengthens competitive positioning by enabling real-time monitoring and strategic decision-making, driving operational excellence, and identifying new growth opportunities(Gupta et al., 2020).

These digital technologies play distinct yet interconnected roles. Remote sensing technologies, traditionally used for environmental monitoring, now revolutionize supply chain operations through real-time tracking and optimization (Reid & Castka, 2023) Big Data analytics empowers organizations to identify trends, make strategic decisions, and proactively address potential issues through predictive analytics and improved customer demand forecasting.(Zhao et al., 2023). Concurrently, ERP systems unify diverse functions across the supply chain, simplifying workflows, enhancing data accuracy, and improving coordination, particularly through real-time data sharing to enable flexible planning and rapid responses to market fluctuations(Gupta et al., 2020).

Existing literature outlines various strategies to address these gaps. Integration efforts focus on enabling greater flexibility in workflow, increasing the overall precision of data, and supporting stronger inter-departmental coordination. Furthermore, these integration efforts are aimed at creating environments that are more conducive to ongoing enhancements to supply chain activities, which can enhance competitive advantage(Karnik et al., 2022).

Despite these advances, current research faces several limitations. Notably, existing research struggles to comprehensively understand the synergistic effects of remote sensing, Big Data, and ERP systems on supply chain performance. Critically, industry-specific factors, particularly in sectors like energy, are frequently overlooked.

Therefore, this study addresses the following research problem: ***How does the integrated adoption of digital technologies impact supply chain performance within the specific context of Sonatrach?***

I .1. Research Hypotheses :

Building upon the research problem and the gaps identified in the literature, the following hypotheses are proposed:

- **H1:** Increased adoption of Internet of Things (IoT) and Remote Sensing technologies is positively associated with improved supply chain performance at Sonatrach.
- **H2:** Increased adoption of Big Data analytics is positively associated with improved supply chain performance at Sonatrach.
- **H3:** Increased adoption of Enterprise Resource Planning (ERP) systems is positively associated with improved supply chain performance at Sonatrach.
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I .2. Research Importance:

This study is crucial for several reasons. First, it will contribute to a deeper understanding of the impact of digital technology adoption on supply chain performance within a specific organizational context, with practical applications. Second, the study will offer valuable insights for Sonatrach, enabling them to optimize their technology investments and improve operational efficiency, cost management, responsiveness, and strategic competitiveness.

I .3. Research motivations :

The research is motivated by:

- **Contextual Motivation:** Sonatrach operates within a complex and dynamic environment, where supply chain disruptions can have significant financial and operational consequences. [Elaborate on specific challenges faced by Sonatrach, such as geographical constraints, regulatory hurdles, or the need for sustainable practices]. Understanding how digital technologies can mitigate these risks and improve supply chain resilience is, therefore, of paramount importance.
- **Theoretical Motivation:** Existing literature provides a general overview of the impact of digital technologies on supply chain performance. This research aims to contribute by focusing on a specific organizational context (Sonatrach) and examining the interplay of multiple technologies. By doing so, the study aims to refine and extend existing theoretical models.

I .4. The structure of the paper:

The remainder of this paper is organized as follows: Section 2 provides a detailed review of the relevant literature on digital technology adoption and supply chain performance. Section 3 describes the research methodology employed in this study, including the research design, data collection methods, and data analysis techniques. Section 4 presents the results of the analysis. Section 5 discusses the implications of the findings and offers recommendations for future research. Finally, Section 6 concludes the paper by summarizing the key contributions and limitations of the study.

II. Review of Literature:

Organizations in our digital era are relentlessly integrating innovative technologies to boost supply chain performance, fundamentally reshaping operations and providing firms with superior agility and strategic benefits(Wang et al., 2022). Advanced systems like remote sensing, Big Data analytics, and ERP platforms have been empirically linked to enhanced performance outcomes, (Laulita et al., 2022) serving as critical drivers of efficiency, accuracy, and responsiveness across the supply chain(Chen, 2016a). The rapid proliferation of digital tools has compelled practitioners to reconfigure traditional processes, thereby creating a dynamic, adaptive environment that supports continuous improvement.

Empirical evidence confirms that such technology adoption strengthens competitive positioning, as it enables real-time monitoring and strategic decision-making. This transformation not only drives operational excellence but also facilitates the identification of new growth opportunities. Consequently, a comprehensive examination of these technological dimensions is imperative to fully understand their collective influence on supply chain performance(Gupta et al., 2020).

Notably, remote sensing technologies long known for their role in environmental monitoring are now being harnessed in innovative ways to transform supply chain operations.(Reid & Castka, 2023) By seamlessly integrating these tools with other digital solutions, organizations can track and optimize their supply chain processes in real-time, thereby reducing inefficiencies and enhancing overall performance.(Brintrup et al., 2022) Moreover, empirical studies have demonstrated that this convergence significantly improves operational visibility and responsiveness(Moysiadis et al., 2021; Townsend et al., 2018). Consequently, remote sensing has emerged as a vital element in modern supply chain management, offering promising avenues for future integration and continued performance enhancement.

Similarly, Big Data is a game-changer for supply chains, plain and simple(Richey et al., 2016). We're talking about mountains of data from every part of the process, and with the right analytical tools, companies can make sense of it all.(Swetha et al., 2024) For example, you can get way better at predicting what customers will want, which means less waste and fewer supply chain hiccups. When you mix Big Data with things like IoT or AI, you're talking about a supply chain that's incredibly adaptable and quick on its feet(Blichfeldt & Faullant, 2021; Jabbar et al., 2020). In the end, it's not just about making things run smoother today; it's about finding completely new ways to add value and innovate in the supply chain(Leminen et al., 2020).

Likewise, ERP systems are widely acknowledged as essential tools for unifying different functions across supply chains, thereby greatly improving overall operational cohesion. These systems simplify workflows, enhance the accuracy of data, and promote better coordination across various organizational units. Moreover, ERP platforms enable real-time data sharing, which is crucial for flexible planning and swift responses to market fluctuations(Karnik et al., 2022). In addition, when ERP systems are combined with other digital technologies, they create a powerful synergy that further boosts supply chain performance. Empirical research shows that implementing ERP systems leads to significant gains in operational efficiency, reduced costs, and higher customer satisfaction(Gupta et al., 2020).Consequently, ERP systems have become indispensable for organizations aiming to achieve superior performance in today’s complex digital landscape.

Current research struggles to comprehensively understand the synergistic effects of remote sensing, Big Data, and ERP systems on supply chain performance. Studies tend to isolate these technologies, failing to capture their combined impact on operational efficiency(Brous et al., 2020). Furthermore, the context-specific nature of many studies limits the generalizability of their findings.(Konopasky et al., 2020) The rapid pace of technological advancement necessitates continuous reevaluation, a need often unmet in current literature(Jabbar et al., 2020). Critically, industry-specific factors, particularly in sectors like energy, are frequently overlooked. To address these gaps, research should adopt a blended quantitative and qualitative approach(Blichfeldt & Faullant, 2021), providing a more holistic and nuanced understanding of technology's impact on supply chains. This integration of methods is crucial for developing practically relevant and widely applicable insights in this dynamic field. The emphasis needs to shift from isolated analysis to systemic understanding.

II-1 Supply Chain Performance:

“Supply chain performance denotes the overall efficiency and effectiveness with which firms coordinate and execute their supply chain processes, including responsiveness, flexibility, cost management, and sustainability.”(Tripathi & Gupta, 2019) Moreover, it encompasses both operational and strategic outcomes, thereby reflecting improvements in logistics, procurement, and

distribution. “In addition, performance is measured by a set of indicators that capture real-time monitoring and the ability to recover from disruptions.”(Aćimović et al., 2022) Furthermore, it is influenced by the integration of advanced digital technologies and process innovations, which facilitate continuous improvement. “Consequently, enhanced supply chain performance leads to better market competitiveness and customer satisfaction.”(Govindan et al., 2022; Gupta et al., 2020).

II-2 Digital technology:

Digital technology merges physical and digital realms, enabling instantaneous data exchange and informed decision-making. This section highlights four core elements IoT, Remote Sensing, Big Data, and ERP Systems which together drive efficiency and transparency across supply chains.

II-2-1 Internet of Things (IoT):

The Internet of Things (IoT) comprises interconnected sensors and smart devices that collect and exchange real-time data to optimize processes and support decision-making. Additionally, IoT enables remote monitoring and control, thereby integrating physical assets with digital systems. Furthermore, it is fundamental in enhancing traceability and transparency across supply chains, as it facilitates data fusion and immediate feedback. Likewise, IoT fosters innovative business models and drives operational efficiencies by automating routine tasks. Hence, it plays a pivotal role in the digital transformation of supply chain operations(Brous et al., 2020; Moysiadis et al., 2021).

II-2-2 Remote Sensing:

Remote sensing involves gathering data from a distance through techniques like satellite and aerial imagery, playing a pivotal role in supply chain management.(Lakhtaria & Iyer, 2020) It allows for the efficient monitoring of environmental conditions and resource allocation, offering comprehensive insights into various supply chain processes.(Moysiadis et al., 2021) This data-rich approach aids in informed decision-making, which is particularly beneficial for sectors such as agriculture and logistics(Osrof et al., 2023).

II-2-3 Big Data:

Big data analytics empowers organizations to handle enormous datasets and extract meaningful insights. This capability significantly enhances forecasting, demand planning, and risk management within supply chains (Govindan et al., 2022; Townsend et al., 2018). By leveraging big data, companies can bolster their supply chain resilience and sustainability, leading to improved performance and a stronger competitive edge (Chen et al., 2025).

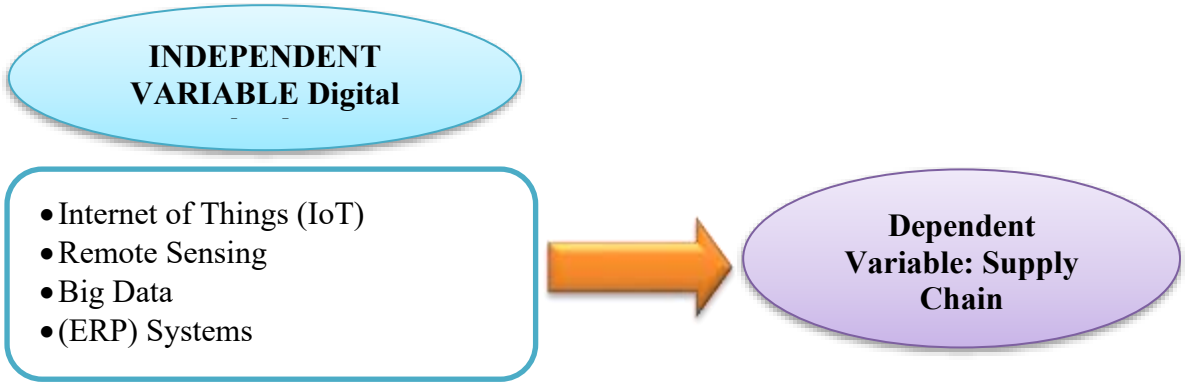
II-2-4 Enterprise Resource Planning (ERP) Systems:

ERP systems integrate various business processes, providing a unified platform for managing supply chain activities. They facilitate information flow and improve coordination among different supply chain partners(Gupta et al., 2020). ERP systems enhance operational efficiency by streamlining processes and reducing redundancies, which is essential for maintaining a competitive edge in the market (Chen et al., 2025; Govindan et al., 2022).

II-3 Conceptual Framework:

The conceptual framework of the research is depicted in Figure 1.

Figure 1. Conceptual Framework of the Research



The source: Prepared by the researchers

III. Methods and Materials:

III-1 Research Methodology:

This study adopts a quantitative research approach to assess the impact of digital technology adoption on supply chain performance, with a particular focus on a case study of Sonatrach. A correlation research design was chosen to analyze and identify the relationships between the degree of digital technology integration—encompassing the Internet of Things (IoT), remote sensing, Big Data analytics, and Enterprise Resource Planning (ERP) systems—and key performance indicators within the supply chain.

III-2 Research Design:

The research employs a correlational design, which is appropriate for examining the strength and direction of the associations between digital technology adoption and various dimensions of supply chain performance (e.g., operational efficiency, cost management, responsiveness, and strategic competitiveness). By utilizing this design, the study can effectively capture how different technological interventions contribute to performance outcomes in real time, while also offering insights into potential causal links that merit further investigation.

III-3 Population and Sampling Procedures:

The target population for this study consists of supply chain management professionals at Sonatrach, including managers, supervisors, and operational staff directly involved with digital technology implementation. Given the case study nature of the research, a purposive sampling technique was employed to ensure that only individuals with substantial experience in the digital transformation of supply chain processes were included. Although Sonatrach encompasses a diverse range of operational units, a sample size of approximately 150 respondents was targeted to secure a representative cross-section of employees knowledgeable in the subject matter. This approach balances the need for depth of insight with the generalizability of the findings.

III-4 Data Collection Method:

Data were primarily collected using structured questionnaires designed to quantitatively measure both the extent of digital technology adoption and its perceived impact on supply chain performance. The questionnaire items were developed based on a thorough review of existing literature and were subsequently validated through a pilot study and expert feedback to ensure reliability and content validity. In addition to the questionnaire, semi-structured interviews were conducted with key informants to provide supplementary qualitative insights and contextualize the quantitative findings.

The questionnaire was disseminated electronically to the selected respondents to facilitate a broader reach within the organization and to ensure efficient data collection. The collected data were then subjected to statistical analysis, including correlation and regression techniques, to examine the relationship between the independent variable (digital technology adoption) and the dependent variable (supply chain performance).

V. Results and discussion :

The data analysis process involved rigorous statistical procedures to test the hypothesized relationships. Descriptive statistics were first employed to summarize the data, followed by inferential statistics such as Pearson's correlation coefficient to quantify the strength of the relationships among the variables. Regression analysis was further utilized to explore the predictive power of digital technology adoption on supply chain performance. These analyses provide a comprehensive understanding of how digital initiatives translate into measurable performance enhancements within Sonatrach's supply chain operations.

V-1 Reliability Assessment of the Measurement Scale:

Table 1. Values of Cronbach's alpha

Cronbach's Alpha	Number of elements
0.863	**22**

Source: the preparation of researchers and the adoption of the spss19

Table 1 reports the results of a reliability analysis using Cronbach's alpha, a widely recognized measure of internal consistency for multi-item scales. The Cronbach's alpha of **0.863** across 22 items indicates a strong level of reliability, reflecting substantial intercorrelations among the items and suggesting that they collectively measure a coherent underlying construct. In general, a Cronbach's alpha exceeding 0.70 is considered acceptable, values above 0.80 indicate good reliability, and those surpassing 0.90 suggest excellent reliability (Hayes & Coutts, 2020). This high reliability strengthens the credibility of the measurement instrument used in this study, ensuring that the findings regarding digital technology adoption and supply chain performance are based on a methodologically sound and consistent dataset.

V-2 Correlation Analysis:

Table 2. Correlation with Supply Chain Performance

Independent Variable	Pearson Correlation with Supply Chain Performance	Sig. (2-tailed)	N
IoT	0.217**	0.008	150
Remote Sensing	0.284**	0.000	150
Big Data	0.516**	0.000	150
ERP Systems	0.363**	0.000	150

The Source: the preparation of researchers and the adoption of the spss25**.**

The correlation matrix reveals significant associations between the adoption of various digital technologies and supply chain performance within the sample of 150 observations. Notably, all four independent variables—Internet of Things (IoT), Remote Sensing, Big Data analytics, and Enterprise Resource Planning (ERP) systems—demonstrate statistically significant, positive correlations with supply chain performance at the 0.01 significance level. This suggests that increased utilization of these technologies is associated with improvements in overall supply chain outcomes.

The strength of the correlations varies across the technologies. Big Data analytics exhibits the strongest positive correlation (r = 0.516), indicating a relatively substantial relationship with supply chain performance. This finding aligns with the growing recognition of Big Data's potential to enhance supply chain visibility, optimize inventory management, improve demand forecasting, and enable more effective risk mitigation. The substantial correlation underscores the crucial role of data-driven decision-making in modern supply chain management.

ERP systems (r = 0.363) and Remote Sensing (r = 0.284) also show notable positive correlations, albeit somewhat weaker than that of Big Data. The significant correlation with ERP Systems indicates that integrated information systems facilitate better coordination and communication across the supply chain, leading to efficiency gains and improved performance. The significant correlation with Remote Sensing likely reflects that real-time data about location and conditions along the supply chain allows for better monitoring and resource allocation.

Finally, IoT exhibits the weakest, though still statistically significant, positive correlation (r = 0.217). While still impactful and worthwhile to implement, this lower correlation does suggest that, in this particular sample, the direct impact of IoT on overall supply chain performance may be less pronounced than that of Big Data, ERP systems, and Remote Sensing. This could be due to a variety of factors, including the specific nature of IoT implementations, the integration of IoT data with other systems, and the presence of complementary resources.

Thus, the findings provide empirical support for the proposition that digital technology adoption positively influences supply chain performance. The varying degrees of correlation suggest that different technologies may have distinct pathways and magnitudes of impact. Further research is warranted to investigate the complex interplay between these technologies, identify mediating mechanisms, and assess the contingent factors that moderate their effectiveness in diverse supply chain contexts.

V.3. Multiple Linear Regression Analysis:

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.621[a]	.386	.369	.53618

a. Predictors: (Constant), ERP_Systems, Remote_Sensing, Big_Data, IoT

Table 4. Coefficients of the Dependent and Independent Variables

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.414	0.433	-	3.267	0.001	-	-
IoT	-0.319	0.129	-0.212	-2.470	0.015	0.576	1.735
Remote_Sensing	0.136	0.099	0.111	1.370	0.173	0.641	1.560
Big_Data	0.562	0.084	0.515	6.718	0.000	0.720	1.390
ERP_Systems	0.233	0.045	0.368	5.216	0.000	0.851	1.176

Dependent Variable: Supply_Chain_Performance

Table 3 presents the results of the model summary reveal that the R-value is 0.621, indicating a reasonably strong correlation between the set of predictors and supply chain performance. The R Square value of 0.386 suggests that 38.6% of the variation in supply chain performance can be explained by the four independent variables included in the model. After adjusting for the number of predictors, the adjusted R Square remains at 0.369, implying that the model maintains much of its explanatory power. The standard error of the estimate is 0.53618, indicating a moderate level of prediction accuracy for supply chain performance.

Table 4 presents the standardized coefficients, which capture the effect of each independent variable on supply chain performance. Big_Data has the largest standardized coefficient (Beta = 0.515), signifying that greater adoption of big data solutions has a substantial and positive effect on supply chain performance. This relationship is highly significant ($p < 0.001$), suggesting that big data initiatives may yield tangible operational or strategic benefits. ERP_Systems also shows a positive and significant impact on supply chain performance, with a standardized coefficient of 0.368 and a p-value < 0.001. This finding highlights the importance of integrated resource planning in streamlining processes and enhancing organizational efficiency.

IoT, on the other hand, has a negative and significant coefficient (Beta = -0.212, $p = 0.015$), indicating that higher levels of IoT adoption at least under current conditions may introduce complexities or costs that slightly hinder overall performance in the short run. Remote_Sensing shows a positive but statistically insignificant coefficient (Beta = 0.111, $p = 0.172$), suggesting that its role is not strong enough to be detected in this sample.

The collinearity diagnostics, as indicated by Tolerance and VIF values, confirm that multicollinearity is not a concern in this model. All VIF values are well below the conventional threshold of 10, ensuring that the estimates of each predictor's effect remain stable. Overall, these findings point to the critical role of advanced data analytics and enterprise systems in enhancing supply chain outcomes, while also underscoring the need to address possible challenges associated with IoT implementations.

V.4. Discussion :

The analysis revealed significant positive correlations between Big Data analytics, ERP systems, Remote Sensing, and overall supply chain performance. Notably, Big Data analytics demonstrated the strongest association, underscoring its crucial role in enhancing visibility, optimizing inventory, and facilitating data-driven decision-making. ERP systems also exhibited a substantial positive correlation, indicating that integrated information systems contribute significantly to improved coordination, communication, and efficiency across the supply chain. Remote Sensing also contributed positively. The unexpected negative impact of IoT adoption indicates the potential for improved deployment strategies.

These findings largely align with existing literature, which emphasizes the transformative potential of digital technologies in supply chain management(Chen, 2016b; Dutta et al., 2020; Laulita et al., 2022). Our results support previous research that identifies Big Data analytics as a game-changer for supply chains(Swetha et al., 2024; Zhao et al., 2023). Similarly, the positive impact of ERP systems corroborates prior studies that acknowledge their essential role in unifying different functions and improving operational cohesion(Gupta et al., 2020). The initial unexpected negative effect of IoT adoption contrasts with the findings by(Brous et al., 2020; Moysiadis et al., 2021), indicating a need for investigation. The findings of the positive and significant effect of remote sensing corroborate prior research(Lakhtaria & Iyer, 2020) It allows for the efficient monitoring of environmental conditions and resource allocation, offering comprehensive insights into various supply chain processes.

However, the study also revealed surprising results. Specifically, the multiple regression analysis suggested a negative correlation between IoT adoption and supply chain performance. This may suggest that implementation strategies are not optimized for use within the organization.

The unexpected negative coefficient for IoT in the regression analysis warrants further explanation. This result may indicate that, under current conditions within Sonatrach, higher levels of IoT adoption are associated with complexities or costs that slightly hinder overall supply chain performance in the short run. Potential explanations include:

- *Implementation challenges:* The integration of IoT devices might be facing challenges such as data overload, interoperability issues, or insufficient infrastructure.
- *Lack of strategic alignment:* IoT deployments may not be fully aligned with the strategic goals of the supply chain, leading to misdirected efforts and inefficiencies.
- *Skills gap:* A lack of skilled personnel to manage and analyze the data generated by IoT devices could be hindering their effective utilization.

Future research should address these limitations by:

- Conducting similar studies in other organizations and industries to assess the generalizability of the findings.
- Employing longitudinal research designs to examine causal relationships over time.
- Exploring the specific challenges associated with IoT implementation and identifying strategies to overcome them.

VI. Conclusion:

This study investigated how digital tech reshapes Sonatrach's supply chain, finding that Big Data and ERP systems boost performance by improving visibility, decision-making, and coordination, which agrees with existing research(Chen, 2016a; Laulita et al., 2022; Shahadat et al., 2023); while remote sensing is beneficial, our unexpected finding regarding the negative coefficient of the IoT suggests that its current implementation strategies should be improved,(Brous et al., 2020) it leads to partially accepting Hypothesis H1 and fully supporting Hypotheses H2 and H3. This research contributes a context-specific analysis within the energy sector, refining theoretical models and providing practical insights for optimizing tech investments at Sonatrach and enhancing operational efficiency, cost management, and responsiveness.

- Appendices:

Appendices for SPSS Outputs

Reliability Statistics

Cronbach's Alpha	N of Items
,863	22

Correlations

Correlations

		IoT	Remote_Sensing	Big_Data	ERP_Systems	Supply_Chain_Performance
IoT	Pearson Correlation	1	,533**	,451**	,372**	,217**
	Sig. (2-tailed)		,000	,000	,000	,008
	N	150	150	150	150	150
Remote_Sensing	Pearson Correlation	,533**	1	,474**	,112	,284**
	Sig. (2-tailed)	,000		,000	,173	,000
	N	150	150	150	150	150
Big_Data	Pearson Correlation	,451**	,474**	1	,118	,516**
	Sig. (2-tailed)	,000	,000		,149	,000
	N	150	150	150	150	150
ERP_Systems	Pearson Correlation	,372**	,112	,118	1	,363**
	Sig. (2-tailed)	,000	,173	,149		,000
	N	150	150	150	150	150
Supply_Chain_Performance	Pearson Correlation	,217**	,284**	,516**	,363**	1
	Sig. (2-tailed)	,008	,000	,000	,000	
	N	150	150	150	150	150

**. Correlation is significant at the 0.01 level (2-tailed).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,621[a]	,386	,369	,53618

a. Predictors: (Constant), ERP_Systems, Remote_Sensing, Big_Data, IoT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1,414	,433		3,267	,001		
	IoT	-,319	,129	-,212	-2,470	,015	,576	1,735
	Remote_Sensing	,136	,099	,111	1,370	,173	,641	1,560
	Big_Data	,562	,084	,515	6,718	,000	,720	1,390
	ERP_Systems	,233	,045	,368	5,216	,000	,851	1,176

a. Dependent Variable: Supply_Chain_Performance

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