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RESEARCH PAPER

Influences of Digital Technologies on Sustainable Supply Chain Management relative to Project Base Organizations of America with Parallel Mediating Models

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ABSTRACT

Now a days, digitalization has seemed highly significant in innovative ways of processes optimization and efficient decision-making relative to sustainable supply chain performance. The current study examines how digital technologies influence decision-making and innovation in optimizing processes toward sustainable supply chain performance in American project-based manufacturing organizations. This current study is quantitative. The online Google survey with a closed-ended questionnaire form was used from 372 employees and managers of project-based organizations in America. The descriptive and inferential analysis is performed on collected data for results. The study results are digital technologies have significant influence on sustainable supply chain management. Efficient decision-making has a partially significant mediating relationship among digital technologies and sustainable supply chain performance. Moreover, innovativeness in process optimization has a partially significant mediating relationship among digital technologies and sustainable supply chain performance. These findings are helpful for decision-makers, researchers, and industry owners who use these technologies in their organizations to achieve sustainable development goals.

Keywords: Digital Technologies, Innovativeness Process Optimization, Efficient Decision Making and Sustainable Supply Chain Management.

INTRODUCTION

America's manufacturing industry has significant issues stemming from prevalent inefficiencies in decision-making and manufacturing processes, with profound consequences for sustainable supply chain systems (Khaskheli et al., 2023). Technological advances, insufficient digitization, and weak distribution system supervision contribute to material wastage and escalating environmental impacts (Tseng et al., 2022). The high follow-up of data due to digitalization, operational strategy, and many rules' systems have delayed sustainable and economic growth (Marda, V, 2018). The inadequacies have an unfavorable effect on the

surroundings, diminish the range of resources, and undermine the sustainability of the economy (Rogers et al., 2012). For such challenges, technology innovations, sustainable supply chain procedures, and laws to improve efficiency, decrease environmental damage, and promote an ecologically friendly industrial sector are needed (Khan et al., 2023). Digital technology has impacted manufacturing, distribution, healthcare, and the economy. Latest digital technologies have improved operations, reduced waste, and improved product and service quality (Chander et al., 2022). Digital technologies like artificial intelligence and robotics help to improve sustainable supply chain performance (Kareska, P.K., 2023; Fahad et al., 2023). Digitalization has increased the organization's productivity to move toward globalization (Tajpour et al., 2022). Furthermore, digital technologies now seem significant for organizations (Ageron et al., 2020). As (Amann et al, 2020), efficient decision with digital technology to attain sustainable supply chain management still has gaps for more studies. Furthermore, innovativeness in process optimization with digital technology to attain sustainability still has gaps. This study is helpful for many industries to improve efficiency, increase decision-making, decrease waste, and much more with the latest digital technologies. Moreover, these technological advancements help to gain sustainability in supply chain activities. The study's proposed results may drive efficient strategies to enable constraints and provide creative ways to promote sustainability. Digital advancement has optimization innovation and needs more study (Alkaraan et al., 2023). The study has included that digital technology has a positive and direct relation with sustainable supply chain management in project-based organizations in America. Efficient decision-making positively mediates between digitalization and sustainable performance. Moreover, innovativeness in process optimization mediates between digital technologies and sustainability.

LITERATURE REVIEW

Digital Technologies and Sustainable Supply Chain Performance

Darwinism digitalization shows firms adapt the technology to long-term growth (Forradellas et al., 2021). It emphasizes digitalization system to increase the operations of organization. The Toyota production system inspired Lean manufacturing, which reduces waste and boosts value in the industry (Kumar et al., 2022). Improve output, eliminate inefficiencies, and strive for continuous improvement. According to the Rational Choice Theory, people weigh their options and choose the best one (Askar et al., 2019). According to the Sustainability Transition Theory, innovation, reforms, and public pressure may change unsustainable behavior into sustainable ones (Moritz et al., 2023). Laws, technology, and social movements promote sustainability. Equipment and physical processes dominate the industry (Dalzochio et al., 2020). Technology has transformed industrial processes (Sima et al., 2020). The "fourth industry, the revolution," integrates digital technology into industrial processes" IoT promotes this technical improvement (Nakayama et al., 2020). It connects sensors and gadgets to the internet for real-time data and communication. It lets equipment communicate throughout manufacturing (Munirathinam, S., 2020). Predictive and preventive care using real-time data reduces repair time, losses, and costs (Ayvaz & Alpay, 2021). Manufacturers need digitalization to increase the production (Brem et al., 2023). Quickly identifying damaged goods reduces waste and increases quality. Digital transformation in industry is sustainable (Javaid et al., 2022). Data analytics

supports eco-friendly practices by identifying waste and energy efficiency potential (Feroz et al., 2021). Digitization has improved industrial production efficiency, quality, and sustainability (Javaid et al., 2022). Digital transformation will help industrial companies succeed despite hurdles (Mesa et al., 2022). Today's ever-changing climate makes sustainability important to many enterprises and communities (Hobson et al., 2002). Sustainability involves carefully managing resources to protect future generations (Kovac et al., 2021; Saddique et al., 2023). The method balances economic growth, social equity, and environmental protection. Attaining sustainability comes with challenges, and trade-offs often happen between these characteristics (Pezzey & Toman, 2017). Transitioning to sustainable energy sources may require substantial upfront costs. Industries such as fossil fuels illustrate the challenge of balancing economic expansion with environmental protection. Concentrating on one dimension's growth will likely have a detrimental influence on the other three dimensions. Collaboration among many stakeholders is necessary for sustainability (Darnall et al., 2010; Saddique et al., 2023). Governments, corporations, NGOs, and individuals have significant duties to fulfill. Laws and regulations need to be established to promote sustainable behaviors. Businesses must consider social and environmental elements in their strategies, while individuals must make deliberate choices daily (Sadiq et al., 2022). In the future, changes in cultural values, laws, and technological advancements will likely impact sustainability. New technologies such as blockchain and AI promise to enhance corporate operations and promote sustainable supply chain practices. The policies targeting carbon reduction and promoting sustainable energy must be adjusted appropriately. Sustainability is a continuous process. It involves a dedication to ongoing improvement rather than a target that can be achieved. It acknowledges our shared duty to the world's welfare and its inhabitants. This study helps in sustainability by taking the necessary steps. Sustainability is a contemporary concept that society researchers use to emphasize the natural world (Fazey et al., 2020). Sustainability involves using available natural resources to maintain environmental equilibrium (Khan et al., 2022). Sustainability consistently upholds or backs an approach over time (Aldianto et al., 2021; Saddique et al, 2023). It is deprived of compromising potential for the future. This subject is presently a primary focus of social science theory (Nikolaou et al., 2021). Various variables contribute to a business's sustainability, with industrial digitization being a key element. Company operations to sustainable ones require the integration of digital technologies (Fuerst et al., 2023). The usage of the latest technologies is fastly thriving throughout sectors worldwide. Digitalization is a recent trend that lowers costs and enhances efficiency in several industries (Alzoubi et al., 2022). Industries and businesses mostly use employee's paperwork for office usage and documentation. Paper is produced from plants, which are natural resources with an important purpose (Lima et al., 2021). As companies increasingly digitize, their use of paper consumption will decrease, leading to a reduction in tree-cutting to save the ecosystem and their supply chain as well (Feng et al., 2020). As per the above discussion, the proposed hypothesis, H1: There is a significant association among digital technologies and sustainability supply chain performance.

Mediating Role of Efficient Decision Making

Digital transformation has significantly impacted decision-making. Real-time data accessibility is one of the main benefits (Sharma et al. (2022). Businesses collect and evaluate statistical data from several sources, including consumer interactions and trends, to provide

efficient decision-makers with well-informed choices (Gupta et al., 2021). These judgments are more precise and prompter about the company's circumstances. Businesses may prepare for future possibilities or challenges by being informed about market trends, consumer needs, and critical performance metrics. Digital technologies enable firms to make choices based on data. Decision-makers use digital technologies such as algorithms for machine learning and sophisticated analytics to analyze large data sets rather than depending only on intuition or experience (Li et al., 2022). These tools have revealed patterns and information that conventional methods would not detect. Data-driven decisions may improve business impartiality (Venkatram et al., 2017). Digital technologies improve decision-maker cooperation and communication. Data and ideas may be shared digitally to improve teamwork (Power et al., 2007). It encourages diverse perspectives and experiences in decision-making (Roberson et al., 2022). Digital tools enable managers to collaborate remotely regardless of the time zone (Peimani et al., 2021;Saddique et al, 2023). Digital technologies enabled statistical analysis and scenario modeling. Managers may simulate scenarios, evaluate consequences, and weigh alternatives before making decisions (Maheshwari et al., 2023; Nwagwa et al., 2023). This expertise decreases risk and uncertainty, helping organizations make better decisions based on expected outcomes (Latifi et al., 2021). Digital technology cannot replace human decision-making (Hassani et al., 2023). Although analytical tools and data bring insights, human action, expertise, and intuition are crucial. For good decision-making, statistics, user perspectives, context, and strategy goals must be balanced (Modgil et al., 2021; Saddique et al., 2023). As per the above discussion Hypothesis, H2, there is a significant association among digital technology and efficient decision-making system. Hypothesis, H3. There is significant relationship among efficient decision-making and sustainable supply chain performance. Hypothesis, H4, efficient decision-making has the partial mediating role of digital technologies and sustainable performance.

Mediating Roles of Innovativeness in Process Optimization

Digital technology plays a crucial part in process improvement, with companies using it to enhance and streamline their business processes (Melesse et al., 2021). Integrating technological innovations and processes substantially boost companies' efficiency and productivity (Bagale et al., 2023). Businesses enhance efficiency by automating repetitive and manual operations, resulting in decreased delays, fewer errors, and faster process completion. Automated robotic processes and other digital technologies handle repetitive jobs, freeing people to focus on complex and strategic activities (Choi et al., 2021). it minimizes processing time and ensures consistency and precision. Digital technologies offer the benefit of real-time data analytics. Businesses may collect and analyze data from many sources to get valuable insights into their operations. The firm may identify inefficiencies, difficulties, and weak places by examining essential performance metrics and using predictive analytics (Mikalef et al., 2020; Nwagwu et al, 2023). it aids companies in making well-informed choices, optimizing resource allocation, and continuously improving procedures (Sheng et al., 2021). Digital technologies facilitate inter-team and inter-department interaction and cooperation by utilizing electronic means of communication, management of project systems, and cloud-based tools for collaboration. This results in streamlined processes, reduced delays, and improved coordination (Pan et al., 2021). A thorough plan addressing organizational and technical variables is essential for digital technology implementation for

sustainable supply chain performance. Businesses must prioritize staff training, managing disturbances and cultural aspects, and using digital technology to improve operations (Jones et al., 2021; Saddique et al, 2023). In order to optimize processes effectively through digital transformation, it is crucial to include people, provide training, and promote innovation and continuous improvement (Anand et al., 2009). However, purchasing orders inside companies have been initiated by digital transformation. Businesses enhance efficiency and optimize operations using automation, collaborative tools, immediate information analytics, and other strategies (Athaide et al., 1996; Sharif et al, 2022). Implementing decision technology requires a well-thought-out plan considering organizational transformation and technical progress (Da browser et al., 2022; Nawaz et al., 2023). As per the above discussion, hypothesis H5 shows a positive relation between digital technology and innovativeness in process optimization. Hypothesis, H6. There is a significant association among innovativeness in processes optimization and sustainable supply chain performance. Hypothesis H7, innovativeness in process optimization has the partial mediating roles of digitalization and sustainable performance.

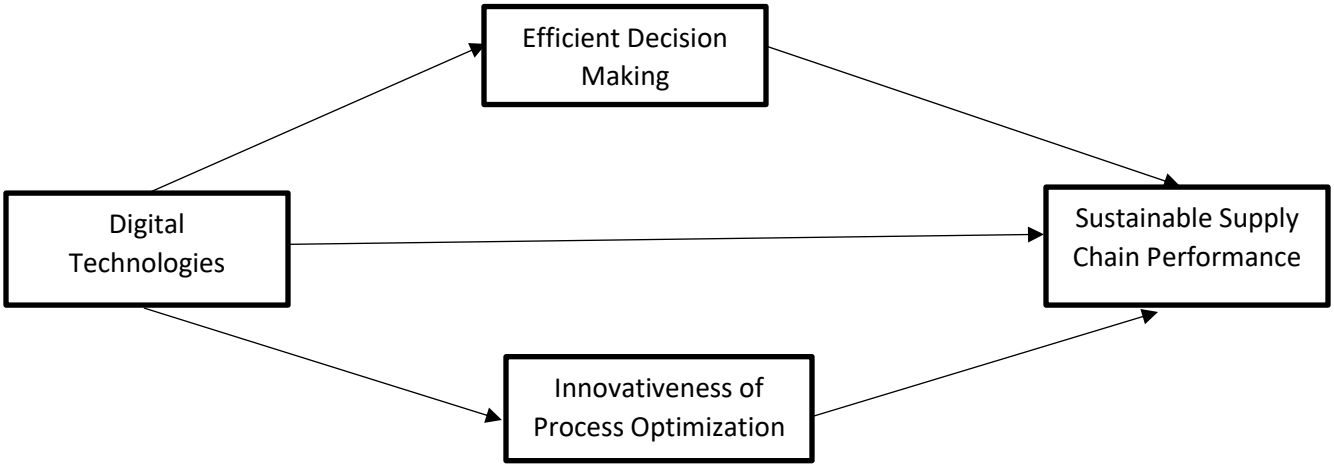
CONCEPTUAL AND THEORETICAL FRAMEWORK

The conceptual and theoretical framework of the study "Influences of Digital Technologies on Sustainable Supply Chain Management relative to Project Base Organizations of America with Parallel Mediating Models" is rooted in the acknowledgment of the pivotal role that digital technologies play in reshaping processes and decision-making for sustainable supply chain performance within project-based manufacturing organizations in America. Drawing on the resource-based view and the technology-organization-environment framework, the study explores the direct impact of digital technologies on sustainable supply chain management, highlighting their role in optimizing processes and fostering efficient decision-making. Additionally, the study integrates mediating models to examine the indirect influence of digital technologies through the mediating factors of efficient decision-making and innovativeness in process optimization on sustainable supply chain performance. By employing a quantitative approach, the study utilizes data collected through an online Google survey from 372 employees and managers. The findings contribute valuable insights, revealing the significant influence of digital technologies on sustainable supply chain management, while also uncovering the partially significant mediating relationships of efficient decision-making and innovativeness. These results have practical implications for decision-makers, researchers, and industry owners, offering guidance for leveraging digital technologies to achieve sustainable development goals in project-based organizations.

RESEARCH METHODOLOGY

This study analyses how digital transformation influence the sustainable performance of American project-based manufacturing companies with the mediating role of effective decision-making and innovativeness in process optimization. The data-collecting procedure kept the respondents' personal information confidential (Fahad et al., 2021; Saddique et al., 2023). The survey questions in English were deemed simple for Staff members, and participants with a minimum of 12 years of education were chosen to ensure easy comprehension of the questionnaire (Saddique et al., 2021). The study questionnaires were showed through Google Forms at several

manufacturing firms in America. The sample size of data received is 375 employees. The questionnaire results show demographic status. The influential results are also shown below.



Conceptual Model

Table Variables Details

Variable	Items	Reference
Digital Technologies	"8"	(Feng et al, 2022)
Efficient Decision-Making	"5"	(McRae, B.M, 2019)
Innovativeness in Process Optimization	"4"	(Chen et al., 2006)
Sustainable Supply Chain Performance	"6"	(Sardana et al, 2020)

Table: Demographic Status:

	Characters	F	%
Gender	Male	275	73.33
	Female	100	26.66
Ages level	Below 20	75	20.0
	21-30	160	42.6
	31-40	95	25.3
	41-50	26	6.9
	Above 50	19	5.0
Education level	Secondary level	71	18.9
	Intermediate level	103	27.5
	Graduation	168	44.8
	Post Graduation	33	8.8
Experience	Less than One Years	62	16.5
	One to Five Years	140	37.3
	Six to ten Years	121	32.2
	Above ten Years	52	13.8

Explanation: Table demographic status shows the 375 respondents survey results. Amongst are 275 were Male with (73.33%) & 100 were Female with (26.66%). The respondents' ages were divided into five categories. Most respondents were between 21 and 30 old years with 42.6% and minimum respondent age is above 50 years with 5%. The qualification categories are divided into four groups, most respondents being university graduates with 44.8% and minimum respondents are post-graduation with 8.8%. From experience, it is classified into four types. The most respondent are 1 to 5 years' experience with (37.3%), while the minimum are above 10 years with (13.8%) with more than ten years of expertise.

Table# Analysis of Reliability:

"Study Variables"	**"Items"**	**"Cronbach's Alpha"**
Digital Technologies	8	0.72
Efficient Decision-Making	6	0.76
Innovativeness in Process Optimization	5	0.78
Sustainable Supply Chain Performance	4	0.89

Explanation: In table Each scale's reliability was calculated through Cronbach's alpha. The results above were above 0.70, suggesting that the measurements were show reliability of data and suitable for further analysis.

Table# Correlation:

"Variables"	1	2	3	4
1. Digital Technologies	1			
2. Efficient Decision-Making	0.135**	1		
3. Innovativeness in Process Optimization	0.221**	0.34**	1	
4. Sustainable Supply Chain Performance	0.162**	0.35**	0.28**	1

**Significant = 0.01 & * Significant = 0.05

Explanation: Table the correlation shows significant between digital technologies and efficient decision with (r=0.135, p= 0.00), the correlation shows significant between digital technologies and innovativeness in process optimization with (r=0.221, p= 0.00), whereas the correlation shows significant between digital technologies and sustainable supply chain performance with (r=0.162, p= 0.00), In addition, the correlation shows significant between efficient decision making on innovativeness in process optimization with (r=0.34, p= 0.00), (r = 0.35, p =.000), whereas the correlation shows significant between efficient decision system and sustainable supply chain with (r=0.35, p= 0.00) and the correlation shows significant between innovative in process optimization and sustainable supply chain with (r=0.28, p= 0.00),

Regression Analysis

Model between Digital Technologies and Sustainability.

"Variables"	"R^2"	"B"	"t"	"sign"
Digitalization	0.023	0.267	9.39	0.00

Sustainable Supply Chain. "*" $p < 0.05$.

Explanation: Table shows the regression analysis to evaluate how Digital technologies influence sustainable performance. The model is of statistical significance "ANOVA" p =0.05. R-square= 0.023 shows that a one-unit rise in digital technologies is linked to a 2.3% variation in sustainable supply chain. The significance = 0.00, indicating a strong relationship among digitalization and sustainability with value less than 0.05. The beta value is 0.267, suggesting that digital technologies impact sustainable supply chain performance. Hence, hypothesis 1 is accepted.

Model Between Digital Technologies and Efficient Decision-Making

"Variable"	"R^2"	"B"	"t"	"sign"
Digital Technologies	0.015	0.241	10.791	0.00

Efficient Decision-Making. "*"$p < 0.05$.

Explanation: Table displays this analysis of digitalization's effect on efficient decision-making. The ANOVA significance value is below 0.05, indicating a statistically significant model with an R-squared value of 0.015 shows digital technologies 1.5% change efficient decision-making. The significance = 0.00 which shows significant. The beta value 0.241, representing influence of digital technologies on efficient decision-making. Hence, hypothesis 2 is accepted.

Model between Efficient Decision-Making and Sustainability

"Variable"	" R^2"	"B"	"t"	"sign"
Efficient Decision-Making	0.121	0.341	9.41	0.00

Sustainability. "*" $p < 0.05$.

Explanation: The table, shows regression analysis outcomes investigating how efficient decision-making affects sustainability. The "ANOVA" is 0.00. An R-squared is 0.121 suggests one component rise in efficient decision-making is related to a 12.1% rise in sustainable supply chain performance. The coefficient's significance level is 0.000, suggesting a significant

correlation between variables since it is below the threshold of 0.05. beta value is 0.341, indicating that efficient decision-making positively impacts sustainable performance. Hypothesis H3 is accepted.

Mediation Examination:

Table "Mediation through Bootstrap technique"

"Relationships"	*"β"*	*"P"*	Bootstraps @ 95%		"Hypotheses"
			"LL"	"UL"	
DL→EDM→SSCP					
Direct effect	0.187	***	0.12	0.365	
Indirect effect	0.306	***	0.22	0.417	

DT=Digital Technologies, EDM=Efficient Decision-Making, SSCP=Sustainable Supply Chain. "**" $p<0.01$.

Explanation: The results shows that efficient decision-making roles a mediator between digital technologies and sustainable supply chain. The indirect results are (0.306, UL = 0.417, LL = 0.22, P=0.01) was direct effect of smaller once (β = 0.187, P=0.01), and it has no zero values in between lower and upper limit. Hypothesis, H4 is accepted: efficient decision-making system partially mediates the association between digitalization and sustainability.

Model Between Digital Technologies and Innovativeness in Process Optimization

Variable	"R^2"	"B"	"t"	"sign"
Digital Technologies	0.028	0.27	9.161	0.00

Innovativeness in Process Optimization, *$p < 0.05$.

Explanation: Table shows the regression analysis conducted to assess the influence of digital technologies on innovativeness in process optimization. The ANOVA's significance value is less than 0.05, suggesting the model is suitable. The R-squared = 0.028 specifies that 1 unit change digital technologies will lead to a 2.8% change in innovativeness in process optimization. The coefficient's significance value is 0.000, below the threshold of 0.05, showing a meaningful relationship. The beta value of 0.27 indicates the impact of digital technologies on innovativeness in process optimization. Therefore, Hypothesis H5 is accepted.

Model between Innovativeness in Process Optimization and Sustainable Supply Chain Performance

Variable	R^2	B	t	sig
Innovativeness in Process Optimization	0.89	0.241	9.51	0.000

Dependent Variable: Sustainable Supply Chain Performance, *p < 0.05.

Explanation: Table shows that regression impacts innovativeness in process optimization on sustainable supply chain performance. The ANOVA's significance value is less than 0.05, suggesting its suitable. The R-squared = 0.89, indicating that a one-unit shift in innovativeness in process optimization will lead to an 89% variation in sustainable supply chain. The significance= 0.000, below the threshold of 0.05, showing a meaningful relationship. The beta value shows 0.241, indicating a positive correlation between innovativeness in process optimization and sustainable supply chain performance. Hypothesis H6 has been accepted.

Mediation Examination:

Table: Mediation through Bootstrap Analysis:

"Relationships"	*"β"*	*'P"*	"Bootstraps @ 95%"		"Hypotheses"
			"LL"	"UL"	
DT→IPO→SSCP					
Direct effect	0.123	***	0.032	0.341	
Indirect effect	0.289	***	0.031	0.431	

DT=Digital Technologies, IPO=, Innovativeness in Process Optimizations, SSCP =Sustainable Supply Chain "**" p<0.01

Explanation: The innovativeness in process optimizations is a mediator among digitalization and sustainability, showing an indirect influence with a coefficient of 0.289, a limit lower of 0.031, a limit upper of 0.431, and an implication level of 0.01. The direct impact is significant, through beta = 0.123 and p = 0.01. Hypothesis H7 is accepted. The study concludes that a partial positive mediates innovativeness in process optimizations between digital technologies and sustainable performance.

DISCUSSION

This study's enhances digitalization understanding. The approach considers digital technologies as an independent variable, influencing sustainable supply chain performance as a dependent, with procedure innovativeness in process efficiency and efficient decision as mediators. This research analyzes how digital technologies affect sustainable development practices in America's industrial sector. It also examines how it can enhance this process more effectively. According to this methodology, research has formulated seven hypotheses. It is

focused on the connections between digital technologies and innovativeness in process optimization, efficient decision-making, and sustainable supply chain performance. In America's industrial sector, digital transformation may increase process optimization. The research shows that digital transformation in America's industrial sector improves procedures. According to research in several sectors and regions, automating industrial processes via digitalization improves process optimization (Arey et al., 2021; Karnik et al., 2022). The latest revolution in American industry would dramatically impact decision-making. The research shows that digital production in the US will improve decision-making. This study's findings are supported by previous studies in diverse settings (Stahl et al., 2021; Kou, 2020). The digital transformation optimizes industrial processes, resulting in sustainable practices. More manufacturing techniques lead to more sustainable practices. Digital technologies will promote direct influence on decision-making (Mergel et al., 2019). Efficient decisions would maintain America's manufacturing project base organization for sustainability. The research found that better decision-making improves sustainable behaviors. Environmental regulations on the industry would boost digital transformation and process optimization without regulation (Kunkel & Matthess, 2020). Studies show that regulatory authorities' rules help industries comply with their practices, compared to no regulation. Digitization promotes sustainability by optimizing processes and informing decisions. Technology improves efficiency, reduces resource use, and reduces waste, boosting sustainability (Li et al., 2023; Cheng et al., 2023). Data-driven insights with real-time monitoring help organizations and governments make sustainable development decisions with digitization (Yusuf & Lytras, 2023). Sustainability is promoted by improving operational efficiency, which allows sustainable practices.

Impact on Sustainable Development Goals

It indirectly promotes the UN's 2030 sustainable development goals by impacting sustainable goal development, emphasizing that investing in industrial infrastructure and innovation is crucial in driving economic expansion. It focuses on sustainable growth and potential influence of digitalization on it. Industry must embrace innovation and have an infrastructure accommodating digital technologies for the sector to transform digitally. In the transition of digital technologies, the sector must guarantee the integrity of its structure and infrastructure. In 2050, much of the population will be relocated to cities and metropolitan regions based on their analysis of historical data and anticipated technological advancements (Derdouri et al., 2021). Most industries are often situated in major urban centers within a nation. Cities experiencing fast expansion from massive immigration need to establish sustainable communities. The industry's transition to sustainable practices contributes to developing a sustainable community, impacting the city's overall sustainability. It asserts that to attain sustainable development and foster economic growth, we must alter our production and consumption methods of products and resources (Bengtsson et al., 2018). This study digitizes the industrial process to help the industry become sustainable. It claims the earth's climate has changed lately. Since 1990, greenhouse gases, the primary factors contributing to climate change, have risen by 50% (Thapa et al., 2023). This study encourages enterprises to transition their industrial process to eco-friendly practices to minimize greenhouse gas emissions and other adverse environmental impacts, establishing sustainability and supply chain performance.

CONCLUSION

The present study investigates how digital technologies might enhance the sustainability practices of America's manufacturing sector. This research will investigate the influence of digitalization on innovative decision system and efficient procedure optimization in America's manufacturing sector and how these practices might contribute to sustainability. The present study helpful for rules of the environment across whole procedures. The study results shows that direct optimistic association among digital technology and sustainable performance. Furthermore, it will enhance its procedures, process innovations, and decision-making, leading to sustainable supply chain performance. Findings indicate that implementing rules of the environment in the sector stimulates the transition towards sustainable performance. In short, this study will help the project-based manufacturing sector change with digital technologies to gain organizational sustainability and improve decision and process systems.

Implications of theoretical aspects

The study significantly contributes to project-based base manufacturing organizations with the latest digital technologies for gaining sustainability. It contributes to existing knowledge through environmental aspects—this influence of regulations from a specific regulatory body on implementing digitalization and sustainable practices. Future researchers can apply this theoretical model to various industries to analyze how each industry responds to sustainability and digitalization.

Applications of Practical Aspects

This research presents various implications for existing knowledge. The study also assists industry professionals in making decisions on digitalization and sustainability. This research will guide managers in the manufacturing and associated industries in America and internationally on integrating digitalization in their organizations. It will also help in how digital technologies are implemented in various ways toward organization sustainability. The study also helpful for regulatory regulations of environment’s will impact the sector and its involvement in digital transformation.

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