

Innovation Leadership in Supply Chain Efficiency: The Role of Process Improvement and Information Technology

Purwoko¹, Muhammad Ali Fikri^{2✉}

^{1,2}Universitas Ahmad Dahlan, Yogyakarta, Indonesia

✉ email: muhammad.fikri@mgm.uad.ac.id

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ABSTRACT

Supply chain management is closely related to the operational processes in an organization. Innovation leadership plays a role in efficiently managing the improvement of supply chain processes and information technology from upstream to downstream. This study analyzes the influence of innovation leadership on supply chain efficiency mediated by process improvement and information technology. This research data was obtained from micro, small and medium enterprises in the creative economy sector in the Special Region of Yogyakarta and obtained as many as 50 respondents. This study uses Smart PLS 4.0 software as a data analysis tool. The results of the study prove that innovation leadership has a positive effect on supply chain efficiency, process improvement mediates the influence of innovation leadership on supply chain efficiency, and information technology mediates the influence of innovation leadership on supply chain efficiency.

Keywords: *Information Technology; Innovation Leadership; Process Improvement; Supply Chain Efficiency.*

INTRODUCTION

The concept of supply chain management became the center of attention when companies realized that innovation alone was not enough to produce fast, cheap and high quality products (Mangan & Lalwani, 2016). Companies need supplier participation to produce cheap, fast and high quality products, and this is ultimately summarized in the concept of supply chain management (Sanders, 2020).

Supply chain management is the process of obtaining and processing raw materials into semi-finished products and finished products which are then distributed to consumers (Ailawadi & Singh, 2021). The goal of supply chain management is to coordinate supply chain activities to maximize competitive advantage and provide benefits to end users (LeMay et al., 2017). Through effective supply chain activities, organizations and suppliers can maintain competitive advantages and improve performance in the face of competition (Qi et al., 2017). According to Fatorachian and Kazemi (2021), an efficient supply chain is the optimal utilization of resources which results in reduced operational costs and time efficiency. Bidhandi and Valmohammadi (2017) suggest that supply chain efficiency refers to profitability, flexibility and reliability for each organization to support better business processes. Supply chain

efficiency can be influenced by innovation leadership as proposed by Mazzola et al. (2015) and Goffnett and Ashita (2016).

Innovation leadership has a positive impact on supply chain efficiency. Innovative leaders are able to provide knowledge and understanding of supply chain management activities, a high work ethic, and establish open relationships to support operational processes and supply chain efficiency (Jia et al., 2019). The essence of innovation leadership is the leader's ability to encourage individual initiative and responsibility, conduct clear and inclusive work evaluations, encourage strong work orientation, and build trust within the organization (Hill et al., 2014). Mazzola et al. (2015) suggest that supply chain innovation is not a transformation, but rather a chain or network of organizations participating in the innovation process. Research conducted by Yoon et al. (2016) and Naqshbandi and Jasimuddin (2018) show that innovation leadership has a positive effect on process improvement. Leaders must develop effective processes and provide appropriate resource support to drive process improvements to improve quality services.

Process improvements also have a positive effect on supply chain efficiency. Research conducted by Lin (2014) and Yoon et al. (2016) show that process improvements have a positive effect on increasing supply chain efficiency. The higher the process improvements carried out by the organization, the more the company's supply chain efficiency will increase (Dirani et al., 2020). Process improvements can encourage supply chain efficiency by increasing the speed of communication, reducing unnecessary processes, and reducing waste costs through innovation (Lin, 2014).

Yoon et al. (2016) and Hahn (2020) state that information technology has an influence on supply chain efficiency. The application of information technology can help improve operational and management processes, as well as reduce costs, thereby impacting supply chain efficiency (Qrunfleh & Tarafdar, 2014). The use of information technology is important to improve operational performance because increasing operational effectiveness and efficiency is needed to support operational processes (Haseeb et al., 2019).

Innovation leadership can also influence information technology. Research conducted by Bag and Anand (2016) and Steude (2017) proves the positive influence of innovation leadership on information technology. The higher the value of innovation leadership, the application of information technology will also increase (Szymkowiak et al., 2021). Basheer et al. (2019) stated that innovative leaders must know how to direct the supply chain by applying information technology through supply chain innovation for maximum results.

Process improvement and the application of information technology can act as mediating variables on the influence of innovation leadership on supply chain efficiency. Research by Yoon et al. (2016) and Bag and Anand (2016) show that process improvements and information technology mediate the influence of innovation leadership on supply chain efficiency. Innovation leadership is able to encourage leaders to play a more active role in creating innovation, emphasizing performance and initiative among employees so that they are able to play a role in improving

operational processes and the use of information technology systems (Yoon et al., 2016). Innovation leadership encourages leaders to continuously innovate in improving processes through reducing costs and improving the quality of products and services to increase supply chain efficiency (Yoon et al., 2016).

The existence of micro, small and medium enterprises (UMKM) plays an important role in the Indonesian economy because it absorbs labor, contributes to foreign exchange and regional income in the form of taxes. Yogyakarta Special Region (DIY) has the potential to continue to develop into a creative industrial area because it has abundant resources and a diverse creative community. DIY is known to be strong in the creative economy in the culinary, craft and fashion sectors. Raghuvanshi et al. (2017) stated that the advantages in the form of innovation and creativity in each UMKM are different. UMKM compete in meeting consumer needs by increasing efficiency and developing innovation in supply chain management.

This research takes the context of UMKM in the creative economy sector in DIY. Researchers took the research context for several reasons. First, according to the DIY Regional Planning and Development Agency in 2024, DIY has the potential to continue to develop into a hub for Indonesia's creative industry and is known to be strong in the creative economy in the culinary, craft and fashion sectors. Second, this research takes a different context from previous research, namely on UMKM in the creative economy sector in DIY. Previous research used the context of the health industry, such as research conducted by Yoon et al. (2016) and Hong et al. (2019) uses the context of the manufacturing industry.

Literacy Study and Hypothesis Development

Organizations need a strong leadership role to achieve business effectiveness and efficiency (Hao & Yazdanifard, 2015). Kremer et al. (2019) define innovation leadership as a leadership style to influence employees to produce creative and innovative ideas. Innovation leadership is a complex concept, but this leadership style can increase innovation (Taylor et al., 2019).

Alsolami et al. (2016) suggested that innovation leadership is relevant to several leadership attributes. Charismatic and transformational attributes are pioneers of innovation leadership. This statement can provide some insight into how innovation leadership can improve organizational performance. Hill et al. (2014) argue that the essence of innovation leadership is that leaders are able to encourage initiative, responsibility, work evaluation, encourage strong work orientation and build trust in the organization.

The results of research conducted by Goffnett and Goswami (2016) and Jermisittiparsert and Srihirun (2019) prove that innovation leadership has a positive effect on supply chain efficiency. Yoon et al. (2016) stated that in order for organizations to survive in a competitive environment, innovative leadership is needed to support the development of organizational innovation. Innovative leaders are able to provide knowledge and understanding of supply chain management activities, have a

high work ethic and establish open relationships with organizations to support operational processes and supply chain efficiency (Jia et al., 2019).

Bag and Anand (2016) revealed that leaders must be able to utilize innovation leadership to carry out work activities in challenging and uncertain situations. Innovation thinking is very necessary to improve organizational performance and maintain the existence of an organization or company in the future. A leader's ability to lead an organization effectively is important for service delivery, customer satisfaction, as well as the overall success of the organization in the industry (Yoon et al., 2016).

H₁: Innovation Leadership Has a Positive Influence on Supply Chain Efficiency

Innovation leadership includes various activities, actions and behavior of leaders to produce innovative output (Cortes & Herrmann, 2021). Innovation leadership creates a safe and comfortable work environment thereby forming relationships between individuals in the organization (Jiménez et al., 2017). Innovation leadership can also increase the ability to integrate knowledge and improve innovation performance. Innovation can influence supply chain management to increase effectiveness and efficiency (Lii & Kuo, 2016). Supply chain innovation refers to the process of dealing with uncertainty to provide solutions to consumer needs using new technology (Lin, 2014).

Based on the information above, innovative leaders will improve the company's innovation performance. Innovative leaders will act to achieve innovation to increase process improvement. According to Hill et al. (2014), the essence of innovation leadership is that the leader is able to encourage individual initiative, responsibility, conduct work evaluations, encourage work orientation, and build trust.

Jermittiparsert and Srihirun (2019) argue that organizations need innovation leadership to increase responsibility by eliminating inefficiencies and continuing to make process improvements in the supply chain. Research conducted by Hao and Yazdanifard (2015) and Yoon et al. (2016) show that innovation leadership has a positive effect on process improvement. Leaders must develop effective processes and provide appropriate resource support to encourage process improvements to improve quality services (Alefari et al., 2017).

Research conducted by Lin (2014) and Bag et al. (2020) show that process improvements have a positive effect on supply chain efficiency. Process improvements can encourage supply chain efficiency by improving communication and production efficiency (Fatorachian & Kazemi, 2021). The higher the process improvements carried out by company management, the easier it will be to achieve supply chain efficiency. Process improvement plays a role in increasing distribution speed and developing forecasting processes so that supply chain efficiency can be achieved.

Research conducted by Yoon et al. (2016) and Bag and Anand (2016) show that process improvement results mediate the positive influence of innovation leadership on supply chain efficiency. Innovation leadership encourages leaders to innovate to improve supply chain efficiency.

H₂: The Mediating Role of Process Improvement on the Influence of Innovation Leadership on Supply Chain Efficiency

Innovation leadership influences information technology with evidence from research conducted by Bag and Anand (2016) and Steude (2017). The higher the value of innovation leadership, the application of information technology will also increase. Wang et al. (2019) stated that innovative leaders must know how to direct the supply chain by applying technology for maximum results.

Research conducted by Yoon et al. (2016) and Hahn (2020) prove that information technology has a positive effect on supply chain efficiency. The application of information technology can help supply chain efficiency (Frederico et al., 2020). The use of information technology is important for improving operational performance (Akter et al., 2016) because it supports the speed of ongoing processes. According to Yoon et al. (2016), successful supply chain management requires information from end users and connecting resources in each process using information technology systems.

Research conducted by Yoon et al. (2016) and Bag and Anand (2016) show that information technology mediates the influence of innovation leadership on supply chain efficiency. Innovation leadership can encourage leaders to play a more active role in creating innovation, improving employee performance and initiative, so that they are able to play a role in improving operations and the use of information technology systems related to supply chain management (Yoon et al., 2016).

H₃: The Mediating Role of Innovation Technology on the Influence of Innovation Leadership on Supply Chain Efficiency

This research analyzes the influence of innovation leadership on supply chain efficiency by mediating process improvements and information technology. Figure 1 shows the conceptual framework of this research.

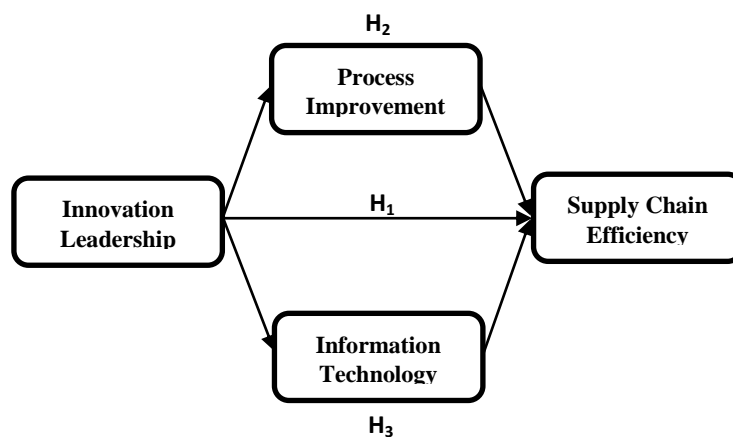


Figure 1. Research Model

METHOD

This research takes data on UMKM actors in the creative economy sector in DIY. The criteria for UMKM that are eligible to be research respondents are UMKM that are registered with the Yogyakarta Cooperatives and Small and Medium Enterprises Service and have participated in outreach activities related to operational management or supply chain management. The next criterion is UMKM that have been operating for more than three years, assuming that the UMKM owner already understands supply chain management in the business they manage. The sample used in this research was 50 respondents.

This research questionnaire was prepared by adopting several reference sources. The innovation leadership (KI) variable contains four questions adopted from Lovelace et al. (2001). The process improvement (PP) and information technology (IT) variables each consist of three questions adopted from Lee et al. (2011). The supply chain efficiency variable contains six questions adopted from Lee et al. (2011).

This research data processing uses Smart PLS 4.0 software. The first stage is testing the validity of the data by measuring the outer loading value for each indicator that represents each variable. The criteria used in validity testing are if the outer loading value is greater than 0.7, then the indicator is declared valid (Hair et al., 2014). The second stage is testing the reliability of each variable used in the research. Reliability testing is determined based on composite reliability and Cronbach's alpha values which are greater than 0.7 and 0.6 to be considered reliable (Hair et al., 2014). The final stage is hypothesis testing which is seen based on the p-value of each hypothesis. If the p-value shows a value of less than 0.05, then the hypothesis is supported or accepted (Ghozali & Latan, 2015).

FINDINGS AND DISCUSSION

Table 1 shows the outer loading value for each indicator for each variable is greater than 0.7. This shows that each indicator representing the research variable can be concluded as valid. Figure 2 shows the structural model of the processing process using Smart PLS 4.0.

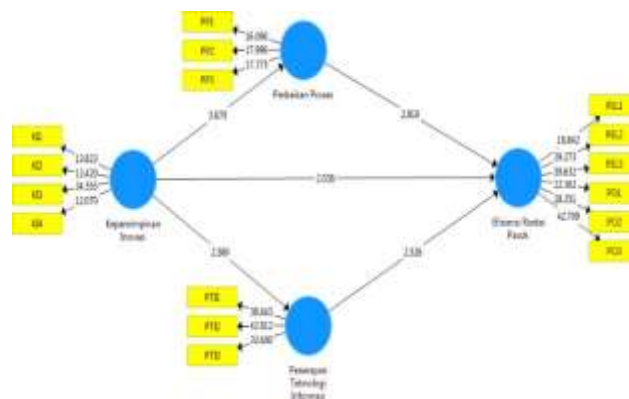


Figure 2. Structural Model

Table 1. Validity Test Results

Indicator	Innovation Leadership	Process Improvement	Information Technology	Supply Chain Efficiency
KI 1	0,853			
KI 2	0,847			
KI 3	0,916			
KI 4	0,848			
PP 1		0,850		
PP 2		0,856		
PP 3		0,873		
TI 1			0,925	
TI 2			0,931	
TI 3			0,914	
ERP 1				0,862
ERP 2				0,902
ERP 3				0,924
ERP 4				0,881
ERP 5				0,897
ERP 6				0,936

Source: Processed Primary Data

Table 2 shows that the composite reliability and Cronbach's alpha values are greater than 0.7 and 0.5. Based on these results, it can be concluded that the variables of innovation leadership, process improvement, information technology, and supply chain efficiency are reliable.

Table 2. Reliability Test Results

Variabel	Composite Reliability	Cronbach's Alpha
Innovation Leadership	0,889	0,923
Process Improvement	0,824	0,895
Information Technology	0,914	0,946
Supply Chain Efficiency	0,953	0,963

Source: Processed Primary Data

Table 3 shows the results of hypothesis testing, both direct and indirect (mediation hypothesis). Innovation leadership is proven to have a positive influence on supply chain efficiency, process improvement mediates the influence of innovation leadership on supply chain efficiency, information technology mediates the influence of innovation leadership on supply chain efficiency.

Table 3. Hypothesis Test Results

	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
Innovation Leadership → Supply Chain Efficiency	0,326	0,349	0,160	2,038	0,042
Innovation Leadership → Process Improvement → Supply Chain Efficiency	0,192	0,188	0,089	2,145	0,032
Innovation Leadership →	0,133	0,120	0,059	2,239	0,026

Information
Technology
→ Supply
Chain
Efficiency

Source: Processed Primary Data

The results of testing the first hypothesis prove that innovation leadership has a positive effect on supply chain efficiency. Innovative leadership will encourage efficient supply chain management (Gattorna, 2017). Supply chain efficiency must be complemented by innovation leadership (Bag et al., 2020). The results of this research are supported by research conducted by Mazzola et al. (2015), Goffnett and Goswami (2016), and Jermsittiparsert and Shihirun (2019) that innovation leadership has a positive effect on supply chain efficiency. Innovative leaders are able to provide knowledge and understanding of supply chain management activities, a high work ethic, and establish relationships with organizations to support operational processes (Jia et al., 2019).

The results of research conducted by Yoon et al. (2016) and Jermsittiparsert and Shihirun (2019) support the positive influence of innovation leadership on process improvement. The results of research conducted by Lin (2014) and Yoon et al. (2016) explained that process improvements have a positive effect on increasing supply chain efficiency. According to Bag et al. (2020), process improvement plays an important role in supply chain efficiency. Process improvements can encourage supply chain efficiency by improving communication and production efficiency (Fatorachian & Kazemi, 2021).

The results of the mediation test show that process improvement can mediate the effect of innovation leadership on supply chain efficiency. Research conducted by Yoon et al. (2016) and Bag and Anand (2016) show that process improvement results mediate the influence of innovation leadership on supply chain efficiency. Innovation leadership encourages leaders to continue to innovate by implementing process improvements to achieve supply chain efficiency (Mokhber et al., 2018).

The results of research conducted by Bag and Anand (2016) and Steude (2017) explain the positive influence of innovation leadership on information technology. Gunasekaran et al. (2017) stated that innovative leaders must know how to direct the organization's supply chain by applying information technology for maximum results.

Research by Gunasekaran et al. (2017) and Hahn (2020) explain that information technology has a positive effect on supply chain efficiency. According to Yoon et al. (2016), successful supply chain management requires information from end users and connecting resources in each process using information technology to achieve supply chain efficiency.

CONCLUSION

This research proves that process improvements and information technology mediate the influence of innovation leadership on supply chain efficiency. By implementing innovation leadership, this will encourage organizations to achieve supply chain efficiency. The role of process improvement and information technology encourages the application of innovation leadership in increasing supply chain efficiency. Based on the results obtained, it is best for every leader to apply an innovation leadership style to encourage the implementation of process improvements and information technology so that ultimately they can increase supply chain efficiency.

REFERENCES

- Ailawadi, S. C., & Singh, P. R. (2021). *Logistics and Supply Chain Management*. PHI Learning Pvt. Ltd..
- Akter, S., Wamba, S. F., Gunasekaran, A., Dubey, R., & Childe, S. J. (2016). How to improve firm performance using big data analytics capability and business strategy alignment?. *International Journal of Production Economics*, 182, 113-131.
- Alefari, M., Salonitis, K., & Xu, Y. (2017). The role of leadership in implementing lean manufacturing. *Procedia Cirp*, 63, 756-761.
- Alsolami, H. A., Cheng, K. T. G., & Twalh, A. A. M. I. (2016). Revisiting innovation leadership. *Open Journal of Leadership*, 5(2), 31-38.
- Bag, S., & Anand, N. (2016). The importance of innovation leadership in cultivating sustainable supply chain management and enhancing organisation performance. *International Journal of Process Management and Benchmarking*, 6(4), 469-490.
- Bag, S., Wood, L. C., Xu, L., Dhamija, P., & Kayikci, Y. (2020). Big data analytics as an operational excellence approach to enhance sustainable supply chain performance. *Resources, conservation and recycling*, 153, 104559.
- Basheer, M., Siam, M., Awn, A., & Hassan, S. J. U. S. C. M. (2019). Exploring the role of TQM and supply chain practices for firm supply performance in the presence of information technology capabilities and supply chain technology adoption: A case of textile firms in Pakistan. *Uncertain Supply Chain Management*, 7(2), 275-288.
- Bidhandi, R. A., & Valmohammadi, C. (2017). Effects of supply chain agility on profitability. *Business Process Management Journal*, 23(5), 1064-1082.
- Cortes, A. F., & Herrmann, P. (2021). Strategic leadership of innovation: a framework for future research. *International Journal of Management Reviews*, 23(2), 224-243.
- Dirani, K. M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R. C., Gunasekara, N., ... & Majzun, Z. (2020). Leadership competencies and the essential role of human resource development in times of crisis: a response to Covid-19 pandemic. *Human resource development international*, 23(4), 380-394.

- Fatorachian, H., & Kazemi, H. (2021). Impact of Industry 4.0 on supply chain performance. *Production Planning & Control*, 32(1), 63-81.
- Frederico, G. F., Garza-Reyes, J. A., Anosike, A., & Kumar, V. (2020). Supply Chain 4.0: concepts, maturity and research agenda. *Supply Chain Management: An International Journal*, 25(2), 262-282.
- Gattorna, J. (2017). *Strategic supply chain alignment: best practice in supply chain management*. Routledge.
- Ghozali, I., & Latan, H. (2015). Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris. Semarang: Badan Penerbit UNDIP, 4(1).
- Goffnett, S. P., & Goswami, A. (2016). Supply chain transformational leadership, supply chain innovation performance, and satisfaction with relationships and results: moderating role of supply chain innovativeness. *International Journal of Logistics Systems and Management*, 24(3), 356-382.
- Gunasekaran, A., Subramanian, N., & Papadopoulos, T. (2017). Information technology for competitive advantage within logistics and supply chains: A review. *Transportation Research Part E: Logistics and Transportation Review*, 99, 14-33.
- Hahn, G. J. (2020). Industry 4.0: a supply chain innovation perspective. *International Journal of Production Research*, 58(5), 1425-1441.
- Hair, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European business review*, 26(2), 106-121.
- Hao, M. J., & Yazdanifard, R. (2015). How effective leadership can facilitate change in organizations through improvement and innovation. *Global journal of management and business research*, 15(9), 1-6.
- Haseeb, M., Hussain, H. I., Ślusarczyk, B., & Jermisittiparsert, K. (2019). Industry 4.0: A solution towards technology challenges of sustainable business performance. *Social Sciences*, 8(5), 154.
- Hill, L. A., Brandeau, G., Truelove, E., & Lineback, K. (2014). *Collective genius: The art and practice of leading innovation*. Harvard Business Review Press.
- Hong, J., Liao, Y., Zhang, Y., & Yu, Z. (2019). The effect of supply chain quality management practices and capabilities on operational and innovation performance: Evidence from Chinese manufacturers. *International Journal of Production Economics*, 212, 227-235.
- Jermisittiparsert, K., & Srihirun, W. (2019). Leadership in supply chain management: Role of gender as moderator. *International Journal of Innovation, Creativity and Change*, 5(2), 448-466.
- Jia, F., Gong, Y., & Brown, S. (2019). Multi-tier sustainable supply chain management: The role of supply chain leadership. *International Journal of Production Economics*, 217, 44-63.
- Jiang, Y., & Chen, C. C. (2018). Integrating knowledge activities for team innovation: Effects of transformational leadership. *Journal of Management*, 44(5), 1819-1847.

- Jiménez, P., Winkler, B., & Dunkl, A. (2017). Creating a healthy working environment with leadership: the concept of health-promoting leadership. *The International Journal of Human Resource Management*, 28(17), 2430-2448.
- Kremer, H., Villamor, I., & Aguinis, H. (2019). Innovation leadership: Best-practice recommendations for promoting employee creativity, voice, and knowledge sharing. *Business horizons*, 62(1), 65-74.
- Lee, J., Palekar, U. S., & Qualls, W. (2011). Supply chain efficiency and security: Coordination for collaborative investment in technology. *European Journal of Operational Research*, 210(3), 568-578.
- Lee, Y. H., Hsieh, Y. C., & Hsu, C. N. (2011). Adding innovation diffusion theory to the technology acceptance model: Supporting employees' intentions to use e-learning systems. *Journal of Educational Technology & Society*, 14(4), 124-137.
- LeMay, S., Helms, M. M., Kimball, B., & McMahan, D. (2017). Supply chain management: the elusive concept and definition. *The International Journal of Logistics Management*, 28(4), 1425-1453.
- Lii, P., & Kuo, F. I. (2016). Innovation-oriented supply chain integration for combined competitiveness and firm performance. *International Journal of Production Economics*, 174, 142-155.
- Lin, H. F. (2014). Understanding the determinants of electronic supply chain management system adoption: Using the technology–organization–environment framework. *Technological Forecasting and Social Change*, 86, 80-92.
- Lovelace, K., Shapiro, D. L., & Weingart, L. R. (2001). Maximizing cross-functional new product teams' innovativeness and constraint adherence: A conflict communications perspective. *Academy of management journal*, 44(4), 779-793.
- Mangan, J., & Lalwani, C. (2016). *Global logistics and supply chain management*. John Wiley & Sons.
- Mazzola, E., Bruccoleri, M., & Perrone, G. (2015). Supply chain of innovation and new product development. *Journal of purchasing and supply management*, 21(4), 273-284.
- Mokhber, M., Khairuzzaman, W., & Vakilbashi, A. (2018). Leadership and innovation: The moderator role of organization support for innovative behaviors. *Journal of Management & Organization*, 24(1), 108-128.
- Naqshbandi, M. M., & Jasimuddin, S. M. (2018). Knowledge-oriented leadership and open innovation: Role of knowledge management capability in France-based multinationals. *International Business Review*, 27(3), 701-713.
- Qi, Y., Huo, B., Wang, Z., & Yeung, H. Y. J. (2017). The impact of operations and supply chain strategies on integration and performance. *International Journal of Production Economics*, 185, 162-174.
- Qrunfleh, S., & Tarafdar, M. (2014). Supply chain information systems strategy: Impacts on supply chain performance and firm performance. *International journal of production economics*, 147, 340-350.

- Raghuvanshi, J., Ghosh, P. K., Agrawal, R., & Gupta, H. (2017). Hierarchical structure for enhancing the innovation in the MSME sector of India. *International Journal of Business Excellence*, 13(2), 181-199.
- Sanders, N. R. (2020). *Supply chain management: A global perspective*. John Wiley & Sons.
- Steude, D. H. (2017). Change and innovation leadership in an industrial digital environment. *Management of Organizations: Systematic Research*, 78(1), 95-107.
- Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, 65, 101565.
- Taylor, A., Santiago, F., Hauer, J., Hynes, R., & Mickahail, B. K. (2019). Leadership, Growth, and the Future. *Effective and Creative Leadership in Diverse Workforces: Improving Organizational Performance and Culture in the Workplace*, 101-153.
- Wang, Y., Singgih, M., Wang, J., & Rit, M. (2019). Making sense of blockchain technology: How will it transform supply chains?. *International Journal of Production Economics*, 211, 221-236.
- Yoon, S. N., Lee, D., & Schniederjans, M. (2016). Effects of innovation leadership and supply chain innovation on supply chain efficiency: Focusing on hospital size. *Technological Forecasting and Social Change*, 113, 412-421.