

Leadership Development for Supply Chain Resilience in the Logistics Industry: A Qualitative Study

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Abstract

In the continuously changing logistics industry, competent leadership is critical to guaranteeing supply chain resilience and adaptation. This qualitative study goes deeply into the diverse topic of logistics leadership via structured interviews and thorough qualitative content analysis. The research sheds light on the problems, lessons learned, and future directions of leadership development. Participants from different professions in the logistics industry underlined important hurdles in adapting leadership development programs to fit the particular needs of individual positions, emphasizing the intricacies involved in this customization process. Employee participation emerged as a critical lesson, with active engagement promoting a feeling of ownership and passion, hence increasing the success of leadership programs. Looking forward, the report underlines the critical need for continual learning, ensuring leaders are up-to-date on the newest technology and trends, and cultivating emotional intelligence, which is essential for managing diverse teams and successfully resolving disagreements. This study adds subtle insights to the debate on leadership development, providing useful implications for industry practices and directing the creation of future programs suited especially to the logistics sector's unique needs.

Introduction

The logistics industry plays a crucial role in ensuring the smooth flow of goods and services across supply chains. However, the industry is susceptible to various disruptions, such as natural disasters, economic crises, and pandemics, which can significantly influence its operations and resilience (Michel et al., 2023). In recent years, there has been a growing recognition

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of the importance of leadership development in enhancing supply chain resilience in the logistics industry. Supply chain resilience refers to the ability of a supply chain to anticipate, respond to, and recover from disruptions, while maintaining its essential functions and performance (Pettit et al., 2019).

Leadership development is a multifaceted process that involves the cultivation of skills, knowledge, and competencies necessary for effective leadership in the logistics industry. It encompasses various dimensions, including innovation, collaboration, and the ability to navigate and adapt to complex and uncertain environments (Ndonye, 2022). Effective leadership is crucial in guiding organizations through disruptions and building resilience in supply chains (Nikookar and Yanadori, 2021). The COVID-19 pandemic has highlighted the need for leadership development for supply chain resilience in the logistics industry. The pandemic has caused unprecedented disruptions to global supply chains, exposing vulnerabilities and weaknesses in the logistics industry (Modgil et al., 2021). Organizations have had to adapt quickly to changing circumstances, implement new strategies, and make critical decisions to ensure the continuity of their operations. Effective leadership has been instrumental in navigating these challenges and building resilience in supply chains (Bag et al., 2022).

Research in the field of supply chain resilience has identified various factors and practices that contribute to the development of resilient supply chains. These include collaboration, information sharing, flexibility, and responsiveness (Scholten and Schilder, 2015). Leadership plays a crucial role in fostering these practices and creating a culture of resilience within organizations (Scholten et al., 2014). By developing leadership capabilities, organizations can enhance their ability to anticipate and mitigate risks, respond effectively to disruptions, and recover quickly from adverse events (Um and Han, 2020).

Effective leadership is critical to guaranteeing the durability and adaptation of supply chains in the changing environment of the logistics industry. Recognizing the importance of leadership development in this setting, this qualitative study digs into the many facets of leadership in the logistics sector. The research utilized a structured interview method, which allowed for in-depth conversations with experienced logistics executives from diverse professions. These interviews offered a qualitative framework for recording participants' opinions, obstacles experienced, and leadership development lessons acquired. The obtained data was subjected to a comprehensive qualitative content analysis, allowing the identification of

recurrent themes, important issues, and noteworthy strategies identified by participants.

The primary objective of this research is to comprehensively explore the impact of leadership development programs on supply chain resilience within the logistics industry. By dissecting the challenges faced during the implementation of leadership initiatives, understanding the lessons gleaned from these experiences, and forecasting the future landscape, this study aims to contribute valuable insights to the field of leadership within logistics. The research seeks to inform industry practices and guide future leadership development efforts tailored specifically to the unique demands of the logistics sector. This study addresses the following research questions:

Research Question 1. What is the impact of leadership development on supply chain resilience?

Research Question 2. What key leadership skills need to be developed to achieve supply chain resilience in the logistics industry?

Research Question 3. Which types of leadership better facilitate supply chain resilience?

Research Question 4. What are the key challenges encountered in tailoring leadership development programs to diverse roles within the logistics industry?

By meticulously examining these questions, the research endeavors to offer nuanced perspectives, shedding light on the intricacies of leadership development in the ever-evolving landscape of the logistics industry.

Conceptual Background

Supply Chain Resilience in the Logistics Industry

Supply chain resilience is crucial in the logistics industry to mitigate disruptions and ensure operational continuity. The logistics industry is susceptible to various disruptions, including natural disasters, economic crises, and pandemics, which can significantly influence the flow of goods and services across supply chains. International organizations and researchers have emphasized the importance of strengthening supply chain resilience in recent years (Goldbeck et al., 2020). The COVID-19 pandemic has further emphasized the significance of supply chain resilience in the logistics industry. The pandemic caused unprecedented disruptions to global supply chains, exposing vulnerabilities and weaknesses in the industry. Organizations had to quickly adapt, implement new strategies, and make critical decisions to maintain operations. Supply chain resilience played a crucial role in enabling

organizations to navigate these challenges and ensure the flow of essential goods and services (Altuntas-Vural et al., 2021).

Supply chain resilience in the logistics industry encompasses various dimensions. It involves the ability to anticipate, respond to, and recover from disruptions while maintaining essential functions and performance. Resilience is not only about bouncing back from disruptions but also about building adaptive capacity and thriving in the face of uncertainty (Ivanov, 2021). Collaboration, information sharing, flexibility, and responsiveness are essential for effective supply chain resilience strategies. These strategies help organizations mitigate risks, enhance operational efficiency, and maintain customer satisfaction (Pettit et al., 2010).

Leadership Development Programs

Leadership development programs are initiatives designed to enhance the knowledge, skills, and abilities of individuals in formal leadership roles. These programs aim to develop the human capital necessary for leaders to act in new ways and effectively fulfill their responsibilities (Kaufman et al., 2010). Leadership development programs can be implemented in various contexts, including business organizations, government agencies, educational institutions, and healthcare organizations (Barriere et al., 2002). The design and implementation of leadership development programs involve several essential tasks. These tasks include needs analysis, program planning, curriculum development, participant selection, program delivery, evaluation, and continuous improvement. HR professionals often play a crucial role in managing these tasks (Pernick, 2001). The evaluation of leadership development programs is an important aspect that is often overlooked. Research on the effectiveness of these programs is limited, suggesting that many organizations do not evaluate the impact of their leadership development initiatives (Collins, 2001).

Effective leadership development programs integrate individual development with organizational culture change. By aligning individual and organizational goals, these programs create a clear “line of sight” between the individual and the organization, fostering a sense of accountability for the success of organizational change initiatives. Integrated culture and leadership programs can be designed and implemented in any environment (Guidroz et al., 2010). Leadership development programs can also be tailored to specific industries or professions. For example, there are programs focused on developing leaders in the healthcare sector.

These programs cover a range of topics, including communication, team building, conflict management, and fiscal management (Taichman et al., 2012). Similarly, there are leadership development programs in the field of education, such as those aimed at preparing community college leaders to meet the challenges of the future (Eddy and Mitchell, 2017). The success of leadership development programs relies on various factors. One key factor is the alignment of the program with the organization's overall strategy. The program should be designed to develop the abilities of high-potential individuals in line with the emerging leadership needs of the organization (Fulmer et al., 2009). Additionally, a stakeholder-based approach can be beneficial in identifying critical aspects of building a successful leadership program and implementing it effectively (Bharwani et al., 2017).

Leadership development plays a crucial role in the logistics industry for several reasons. Firstly, effective leadership is essential for guiding and steering the process of organizational transformation, allocating resources, and supporting organizational learning. In a rapidly evolving industry like logistics, leaders need to be adaptable and capable of driving change to meet the challenges and opportunities presented by technological advancements, globalization, and changing customer demands. Leadership development programs can equip leaders with the necessary skills and knowledge to navigate these complexities and lead their organizations towards success (Wamba and Chatfield, 2009). Secondly, leadership development programs contribute to maximizing the efficiency of logistics teams and achieving organizational goals (Dwivedi et al., 2020). Leaders who possess strong leadership skills can effectively motivate and inspire their teams, leading to increased productivity, improved performance, and higher job satisfaction among employees. By developing leadership competencies such as communication, decision-making, problem-solving, and strategic thinking, leadership development programs enable leaders to effectively manage logistics operations, optimize processes, and drive continuous improvement (Tsepetsi et al., 2019).

Furthermore, leadership development programs in the logistics industry are crucial for promoting sustainability and responsible business practices. Sustainable leadership emphasizes the importance of balancing economic, social, and environmental considerations in decision-making and operations (Bulmer et al., 2021). In an industry that has a significant impact on the environment, such as logistics, leaders need to be equipped with the knowledge and skills to implement sustainable practices, reduce carbon emissions, and minimize waste. Leadership development programs can raise awareness about sustainability issues, foster ethical decision-making, and

empower leaders to drive positive change within their organizations (Li et al., 2022).

Leadership development programs in the logistics industry are essential for promoting diversity and inclusion. The logistics industry, like many other industries, has traditionally been male-dominated. However, research has shown that diverse leadership teams lead to better decision-making, innovation, and overall organizational performance (Kolasińska-Morawska et al., 2019). Leadership development programs can help identify and develop the leadership potential of individuals from underrepresented groups, including women, and provide them with the necessary support and opportunities to advance their careers in the logistics industry (Bulmer et al., 2021). Additionally, leadership development programs in the logistics industry contribute to the professionalization of the field. Logistics is a complex and multifaceted industry that requires specialized knowledge and skills. Leadership development programs can provide leaders with the industry-specific knowledge, technical expertise, and strategic thinking abilities needed to effectively manage logistics operations, navigate regulatory frameworks, and address industry-specific challenges. By investing in leadership development, organizations can enhance the overall competence and professionalism of their leaders, which ultimately benefits the entire logistics industry (Murphy and Poist, 2007).

The Impact of Leadership Development on Supply Chain Resilience

Leadership development programs have a significant impact on supply chain resilience. Several studies have highlighted the positive effects of leadership development on enhancing supply chain resilience. For instance, research by Dubey et al. (2019) emphasizes that reducing behavioral uncertainty through leadership development enhances the positive impacts of trust and cooperation on supply chain resilience. Similarly, Queiroz et al. (2022) found that alertness, which can be developed through leadership development, positively affects supply chain resilience improvement. These programs contribute to supply chain resilience by equipping leaders with the necessary skills and competencies to effectively manage disruptions and uncertainties. Ambulkar et al. (2014) highlight that resilience allows firms to manage supply chain disruptions and continue delivering products and services to customers. By developing leadership competencies such as adaptability, decision-making, and problem-solving, leadership development programs enable leaders to respond effectively to disruptions and recover quickly.

Furthermore, leadership development programs foster a culture of resilience within supply chains. As leaders develop their own resilience, they can inspire and motivate their teams to embrace resilience as well. This is particularly important in times of crisis or unexpected events. Leat and Revoredo-Giha (2013) emphasize that resilience at the supply chain level aims to develop the adaptive capability of the chain to prepare for unexpected events, respond to disruptions, and recover from them. Leadership development programs play a crucial role in cultivating this adaptive capability and fostering a resilient mindset throughout the supply chain. Moreover, leadership development programs enhance supply chain risk management strategies, which are essential for building resilience. As highlighted by Scholten et al., (2014) mitigation processes are critical in building supply chain resilience. Leadership development programs can provide leaders with the knowledge and tools to identify and mitigate risks effectively, thereby strengthening the overall resilience of the supply chain.

Additionally, leadership development programs promote collaboration and coordination within supply chains, which are key factors in enhancing resilience. Gani et al. (2022) suggest that supply chain resilience plays a mediating role in the relationship between a firm's supply chain capabilities and its sustainable supply chain performance. Leadership development programs can equip leaders with the skills to foster collaboration, build strong relationships with supply chain partners, and develop effective coordination mechanisms, all of which contribute to supply chain resilience. Overall, leadership development programs have a significant impact on supply chain resilience by developing leaders' skills and competencies, fostering a culture of resilience, enhancing risk management strategies, and promoting collaboration and coordination within supply chains. These programs play a crucial role in equipping leaders with the tools and mindset necessary to navigate disruptions, adapt to uncertainties, and ensure the continuity and success of supply chain operations.

Methodology

Research Approach

The study was carried out in line with the phenomenological research design. From the researcher's standpoint, the phenomenological technique seeks to expose different personal views of expert persons about their experiences, the circumstances they have encountered, and their observations throughout their professional lives (Bloor and Wood, 2006: 128). In accordance with the phenomenological research methodology, interviews

are appropriate for investigating and interpreting events happening in and around the participant (Sığrı, 2018: 186).

Researchers may explore people's thoughts, feelings, perceptions, and reality about a certain issue verbally via interviews. The interview method's ultimate purpose is to collect high-quality data on the study topic (Sığrı, 2018: 237). Structured interviews are carried out in a uniform fashion, with all participants being given the same set of open-ended questions in the same sequence. Structured interviews excel at producing consistent data and allowing participants' responses to be compared (Savin-Baden and Howell Major, 2013), whereas unstructured interviews allow for greater flexibility in questioning and frequently result in more in-depth responses from participants.

Pilot interviews with subject specialists establish the validity of the interview process. Various processes, such as identifying the study framework, building the data collection technology, preparing the interview guide, and asking participants questions, should be completed in a sequential order. Following the completion of the interviews and transcription, the data is subjected to qualitative content analysis.

Data Collection and Participant Profiles

The data were gathered using online, structured interviews, and the data collecting instrument was built around questions pulled from the existing literature on leadership development and supply chain resilience. Four academics from different institutions (a professor and an associate professor from Dokuz Eylul University, an assistant professor from Bandırma Onyedi Eylul University, and an assistant professor from Ankara Science University) critically analyzed the interview form to address reliability concerns. This group of academics investigated whether the questions were relevant and thorough enough to obtain meaningful and focused data. To validate the data gathering instrument, the designed interview form was administered to five experts working in logistics businesses' supply chain divisions. The interviews were repeated one week later to evaluate whether the results were consistent. Obtaining identical responses proved that the data gathering form was genuine.

In qualitative research, the purposeful sampling approach is widely used to effectively employ limited resources and pick samples with extensive knowledge of the relevant issue. Expertise, skill, and knowledge, as well as appropriateness and desire to participate, are significant characteristics in intentional sampling (Palinkas et al., 2015: 534). For our research, we

purposefully picked 25 experts from ten different logistics companies based on their active engagement, competence, and proficiency in the industry.

The information was gathered during August and October of 2023. The interviews were done via the internet using a remote internet connection. Each interview lasted 45 minutes on average. The interviews were not recorded due to participants' and organizations' privacy concerns. As a result, the interviewer recorded the participants' comments verbatim. The participant profiles are shown in Table 1.

Table 1. Profile of the Participants

Participant ID	Position	Education Level	Years of Experience	Responsibilities
1	Logistics Manager	Bachelor's Degree	10 years	Overseeing transportation and distribution processes, optimizing logistics operations for efficiency.
2	Supply Chain Analyst	Master's Degree	7 years	Analyzing supply chain data, optimizing inventory levels, and forecasting demand for efficient operations.
3	HR Specialist	Bachelor's Degree	8 years	Organizing logistics-focused leadership development initiatives, managing HR processes for logistics teams.
4	Operations Director	MBA in Logistics Management	15 years	Directing overall logistics operations, strategic planning, and ensuring seamless supply chain management.
5	Warehouse Supervisor	Bachelor's Degree	6 years	Supervising warehouse operations, managing inventory, and ensuring efficient team performance.
6	Shipping Coordinator	Associate's Degree	4 years	Coordinating shipments, managing logistics during challenges, and ensuring timely deliveries.
7	Supply Chain Planner	Bachelor's Degree	9 years	Planning supply chain strategies, coordinating with stakeholders, and optimizing logistics processes.
8	Customer Service Manager	Bachelor's Degree	8 years	Managing customer interactions, ensuring satisfaction, and coordinating logistics for seamless service.

9	Logistics Coordinator	Bachelor's Degree	5 years	Coordinating logistics tasks, fostering team communication, and ensuring smooth operations within the team.
10	Senior Logistics Analyst	Master's Degree	12 years	Analyzing real-time data during supply chain crises, making informed decisions, and optimizing logistics processes.
11	Operations Manager	Bachelor's Degree	11 years	Managing overall logistics operations, focusing on team collaboration, efficiency, and customer satisfaction.
12	Logistics Planner	Bachelor's Degree	7 years	Planning and adjusting logistics strategies, ensuring adaptability, and optimizing supply chain operations.
13	Logistics Supervisor	Bachelor's Degree	14 years	Supervising logistics team, addressing challenges, and ensuring efficient and timely delivery of goods.
14	Supply Chain Manager	Master's Degree	10 years	Managing end-to-end supply chain, optimizing processes, and ensuring efficient coordination with stakeholders.
15	Transportation Coordinator	Bachelor's Degree	6 years	Coordinating transportation logistics, ensuring timely deliveries, and optimizing routes for efficiency.
16	Logistics Consultant	MBA in Supply Chain Management	20 years	Providing consultancy on logistics strategies, crisis management, and optimizing supply chain for clients.
17	Supply Chain Strategist	MBA in Logistics Management	18 years	Developing strategic supply chain plans, focusing on future trends, and optimizing operations for efficiency.
18	Warehouse Manager	Bachelor's Degree	9 years	Managing warehouse operations, ensuring efficient inventory management, and optimizing storage and distribution.

19	Procurement Specialist	Bachelor's Degree	8 years	Managing procurement processes, negotiating with suppliers, and ensuring timely acquisition of materials.
20	Inventory Control Analyst	Bachelor's Degree	5 years	Analyzing inventory data, ensuring optimal stock levels, and coordinating with supply chain teams for efficiency.
21	Distribution Supervisor	Bachelor's Degree	7 years	Supervising distribution processes, ensuring timely deliveries, and optimizing routes for efficient distribution.
22	Fleet Manager	Bachelor's Degree	12 years	Managing logistics fleet, ensuring vehicle maintenance, coordinating transportation, and optimizing routes.
23	Quality Assurance Specialist	Bachelor's Degree	8 years	Monitoring quality in logistics processes, ensuring adherence to standards, and optimizing operations for quality.
24	Compliance Officer	Master's Degree	10 years	Ensuring logistics operations comply with regulations, managing compliance processes, and optimizing for adherence.
25	Sustainability Coordinator	Master's Degree	6 years	Focusing on sustainable logistics practices, managing environmental impact, and optimizing operations for sustainability.

Findings

Based on the replies of the participants, the following primary categories illustrate the study's purpose of evaluating the influence of leadership development on supply chain resilience in the logistics industry. Figure 1. demonstrates the hierarchy of the main categories and the identified codes (notions) under them :

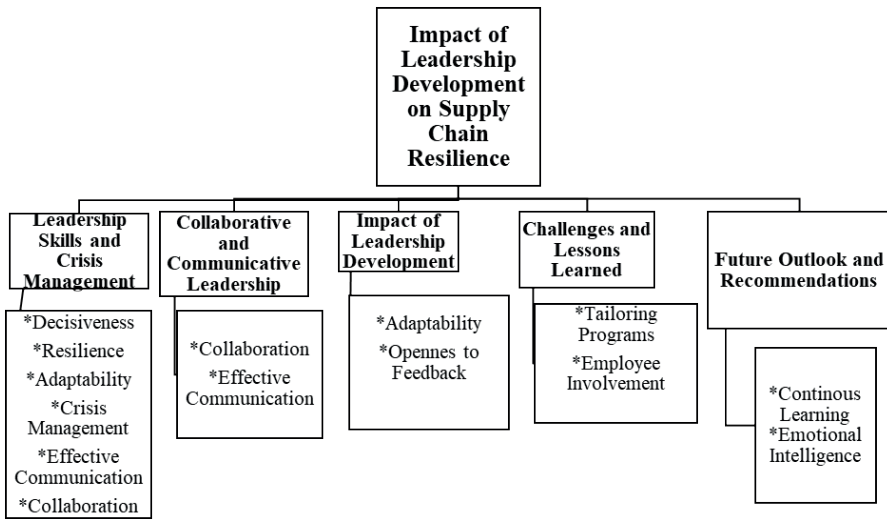


Figure 1. Code Hierarchy

1. Leadership Skills and Crisis Management:

This category encompasses essential skills such as decisiveness, resilience, adaptability, crisis management, effective communication, and collaboration. These skills are crucial for leaders to navigate challenging situations and ensure the smooth functioning of logistics operations during disruptions.

2. Collaborative and Communicative Leadership:

This category focuses on collaboration among team members and effective communication both internally and externally. Collaborative and communicative leadership fosters teamwork, coordination, and positive relationships, which are vital for the logistics industry's complex network of stakeholders.

3. Impact of Leadership Development:

This category delves into the impact of leadership development programs. It includes subcategories like adaptability (enhanced through training), openness to feedback (critical for continuous improvement), shift in approach (indicating a change in leadership mindset), problem-solving skills, and communication skills honed through development initiatives.

4. Challenges and Lessons Learned:

This category addresses challenges faced during leadership development, including tailoring programs to diverse roles, convincing management

of their value, involving employees actively, and designing personalized initiatives. Lessons learned from these challenges inform future strategies for effective leadership development.

5. Future Outlook and Recommendations:

This category explores future trends and recommendations. It includes subcategories such as VR-Based Simulations (indicating the integration of technology in training), continuous learning (highlighting the need for ongoing education), and emotional intelligence (emphasizing the importance of soft skills for future leaders). These aspects reflect the evolving landscape and the skills leaders should cultivate for future success in the logistics industry.

These categories capture the important themes drawn from the replies of the participants and are consistent with the study's purpose of investigating the influence of leadership development on supply chain resilience in the logistics sector. More in-depth analysis and debate within these categories may give deeper insights into the study results.

Leadership Skills and Crisis Management

Decisiveness: The capacity to make rapid and effective choices, particularly during crises, guarantees that the supply chain can react to changing situations quickly and avoid interruptions. Participants emphasized the significance of making timely decisions amid supply chain interruptions. Decisive leaders were praised for their ability to make quick and efficient judgments while preserving operational continuity and customer satisfaction.

Resilience: Leaders that display resilience may steer their teams through adversity while preserving morale and concentration. This trait is necessary for dealing with unexpected occurrences and uncertainty. Resilience in the face of adversity appeared as an important characteristic. Resilient leaders were recognized for their ability to recover from failures, adapt to changing conditions, and successfully lead their teams through crises.

Adaptability: The ability to modify tactics, procedures, and plans in response to changing circumstances is critical. Adaptable executives may effectively restructure supply chain processes, adjusting changes and ensuring continuity. Adaptability was highlighted as an important leadership attribute. Leaders in the logistics industry who were able to modify their plans, operations, and communication tactics in reaction to unanticipated occurrences were acknowledged for their success in crisis management.

Crisis Management and Problem-Solving: Leaders with strong crisis management and problem-solving abilities can recognize challenges, evaluate core causes, and execute effective remedies quickly. This proactive approach is critical for addressing disturbances and preventing them from worsening. Participants discussed situations in which excellent crisis management and problem-solving abilities were critical. Leaders who are capable of assessing events, finding fundamental causes, and implementing solutions were praised for their capacity to manage risks and ensure the supply chain runs smoothly.

Effective Communication: Communication must be clear, open, and confident, both inside the company and with external stakeholders. Leaders who can maintain open lines of communication promote teamwork, problem-solving, and trust even in difficult situations. The need for effective communication during emergencies was emphasized. Leaders who could communicate effectively, honestly, and confidently with internal teams as well as external stakeholders were seen as critical for controlling disruptions and sustaining trust and cooperation within the supply chain network.

Collaboration and Team Building: Leaders that value cooperation and establish a cohesive team atmosphere encourage group problem-solving. Team cohesion and cooperation among stakeholders greatly contribute to resilience by improving the capacity to adapt and react to problems collectively. Participants agreed that leaders' collaborative abilities might boost and spread team spirit, as well as foster harmony among workers, allowing them to work together to combat a crisis scenario.

These notions emphasized the need for unique leadership abilities and crisis management strategies to manage the complexity of the logistics business, especially during crisis times. These abilities help to develop a resilient supply chain by allowing executives to react to disruptions efficiently, mitigate risks, and ensure operational continuity. By combining these talents with strategic planning and inventive thinking, the logistics sector can build a solid basis for supply chain resilience.

Collaborative and Communicative Leadership

The following concepts were emphasized more significantly by participants, in the Collaborative and Communicative Leadership category:

Collaboration: Participants stressed the need for coordination among supply chain players. Collaborative leaders promote cooperation, departmental coordination, and a feeling of joint responsibility.

Effective Communication: Clear and honest communication is identified as a critical aspect of retaining team members' confidence and understanding.

Leaders who can effectively both internally and externally enable issue solutions and avoid misconceptions.

Participants identified collaboration and effective communication as two key concepts within the Collaborative and Communicative Leadership category. Collaboration was identified as a critical factor, with participants emphasizing the significance of cohesive collaboration and coordination across diverse supply chain players. Collaboration leaders allow fluid interactions across departments, assuring a united effort toward common objectives. Another key topic was effective communication, with participants emphasizing the need for clear and transparent communication lines. Leaders that were able to articulate their vision, goals, and strategies promoted mutual understanding among team members, resulting in more efficient problem-solving and fewer misunderstandings. The focus on teamwork as well as effective communication emphasizes the importance of interpersonal skills in building a peaceful and productive work environment within the logistics business. These results emphasize the crucial necessity for leaders to not only encourage team cooperation but also to communicate clearly and freely, therefore improving the overall efficacy of collaborative and communicative leadership in the logistics industry.

Impact of Leadership Development

According to the submitted answers, the participants, under the Impact of Leadership Development category, emphasized the following notions more strongly:

Adaptability: Participants stressed the importance of adaptability, stating that leadership development programs improved their capacity to modify plans and operations in response to changing conditions. Adaptable leaders can successfully adapt to unanticipated obstacles and change their tactics, assuring the supply chain's robustness.

Openness to Feedback: As a result of leadership development activities, openness to feedback has emerged as a critical factor. Leaders who are open to feedback foster an environment in which ideas flow easily, allowing for continual development and innovation in logistics operations.

Participants in the study on the impact of leadership development stressed two key concepts: adaptability and openness to feedback. Participants emphasized the transforming influence of leadership development programs on their capacity to quickly alter strategy and operations in response to developing difficulties as a prominent topic. Leaders who embraced flexibility were better positioned to overcome unforeseen interruptions,

ensuring the supply chain's resilience and continuity. Another important factor was openness to feedback, which reflected the influence of leadership training on leaders' receptivity to new ideas and constructive criticism. Participants agreed that creating an atmosphere in which input is embraced and appreciated fostered a culture of continuous improvement and innovation in logistics operations. These findings highlight the significant impact of leadership development initiatives not only in improving leaders' adaptability to changing market conditions but also in cultivating an open culture in which feedback serves as a catalyst for positive change and growth in the logistics industry.

Challenges and Lessons Learned

Based on the provided responses, the participants highlighted the following ideas more prominently within the Challenges and Lessons Learned category:

Tailoring Programs: Participants emphasized the challenge of tailoring leadership development programs to suit diverse roles within the logistics industry. Designing programs that address the specific needs of various positions, from logistics managers to coordinators, emerged as a significant challenge in the implementation of effective leadership initiatives.

Employee Involvement: The importance of involving employees in the design and implementation of leadership programs was underscored. Participants noted that the active engagement and participation of employees in these programs played a crucial role in their success, ensuring ownership and enthusiasm among the workforce.

Within the domain of challenges and lessons learned, the participants placed significant emphasis on two key concepts: the customization of programs and the active engagement of employees. The task of developing tailoring programs has been a notable obstacle, underscoring the intricate nature of crafting leadership development efforts that effectively address the many responsibilities found within the logistics sector. Ensuring the success and relevance of these programs presented a significant challenge in meeting the distinct requirements of different roles, ranging from logistics managers to coordinators. The importance of employee involvement emerged as a significant lesson that was learned. The significance of including workers in the development and execution of leadership programs was emphasized by the participants. The inclusion of the workforce in these projects not only cultivated a feeling of ownership but also engendered excitement and dedication, resulting in enhanced levels of achievement. The results of

this study emphasize the delicate equilibrium between customization and employee involvement in leadership development initiatives, underscoring the necessity for personalized strategies that actively engage the workforce in order to effectively address the challenges and maximize the effectiveness of these programs in the logistics sector.

Future Outlook and Recommendations

Based on the gathered responses, the participants highlighted the following subjects more prominently within the Future Outlook and Recommendations category:

Continuous Learning: Participants emphasized the importance of continuous learning, indicating the need for ongoing education and skill development to keep up with evolving technologies and industry trends. Continuous learning ensures that leaders stay updated with the latest advancements, enabling them to make informed decisions and adapt strategies in a rapidly changing logistics landscape.

Emotional Intelligence: Emotional intelligence was underscored as a crucial skill for future leaders. Participants noted the significance of emotional intelligence in managing diverse teams, fostering strong relationships, and resolving conflicts effectively, all of which are essential in the evolving and complex dynamics of the logistics industry.

In the category of Future Outlook and Recommendations, participants placed significant emphasis on two essential concepts: continuous learning and emotional intelligence. Continuous learning has become a fundamental aspect of future leadership, illustrating the rapid change in the sector. The participants emphasized the need for leaders to actively participate in continuous education and skill enhancement, therefore guaranteeing their up-to-date knowledge of the most recent technology and industry trends. Continuous learning provides leaders with the information and insights required to make educated choices and modify tactics, enabling flexibility in the face of changing logistical difficulties. The significance of emotional intelligence was underscored as a crucial attribute for prospective leaders. Recognized for its crucial function in overseeing heterogeneous teams, the participants emphasized the importance of emotional intelligence in cultivating robust interpersonal connections, efficiently addressing disagreements, and promoting a favorable professional atmosphere. The aforementioned results indicate a prospective scenario in which individuals in leadership positions within the logistics sector must exhibit not just technical expertise but also a considerable degree of emotional intelligence. This

combination of skills would allow them to effectively traverse the intricate challenges of the business by demonstrating empathy, understanding, and resilience. Continuous learning and emotional intelligence emerge as crucial suggestions, guaranteeing that forthcoming leaders possess the necessary skills to effectively guide their employees within a constantly evolving environment.

Conclusion

This research conducted an in-depth exploration of leadership in the logistics sector, revealing valuable findings that have substantial implications for both scholarly comprehension and real-world implementation. The significance of possessing proficient leadership abilities, such as the capacity to make sound decisions, display perseverance, and demonstrate flexibility, was emphasized as crucial for effectively managing the complexities associated with the logistics industry. The research underscored the pivotal importance of collaborative and communicative leadership, placing emphasis on the value of cooperation and transparent communication in guaranteeing operational effectiveness. Furthermore, the influence of leadership development programs, namely in augmenting flexibility and receptiveness to criticism, has emerged as a catalytic force that is molding the future leaders of the industry.

The significance of this study lies in its concentration on the logistics industry, an area where proficient leadership is not only essential but also a strategic need. The distinctiveness of this work is in its meticulous examination of leadership obstacles, acquired knowledge, and forthcoming suggestions, especially those adapted to the logistics sector. These focused insights have the potential to foster organizational superiority.

This research makes a valuable contribution to the existing body of literature on leadership by offering empirical facts and real-world illustrations specifically within the context of the logistics business. This study enhances leadership theories by situating them inside the actual domain of supply chain management, thus augmenting the breadth and precision of current scholarly understanding. Furthermore, this research contributes to the advancement of knowledge on the impact of leadership development programs on essential competencies such as adaptability and receptiveness to criticism, thereby facilitating the integration of theoretical concepts with real-world implementation.

Professionals in the field may use the practical insights provided by this study. Organizational leaders, HR managers, and logistic experts may use the

study's findings to create targeted leadership development programs. These programs aim to cultivate essential abilities that are crucial for enhancing resilience and maintaining competitiveness. The suggestions provided by the research serve as a valuable resource for developing successful strategies, eventually leading to improved performance within logistics companies.

Notwithstanding its valuable contributions, this research is not exempt from some limitations. The results are contingent upon the exact environment and may differ depending on factors such as corporate culture and geographic location. The sample size, although exhibiting diversity, may not fully represent the whole of the logistics business. Additionally, the qualitative character of the research imposes constraints on the extent to which the results may be generalized. In order to overcome these constraints, future research attempts may consider using bigger and more diversified samples, encompassing a wider range of geographies and sub-sectors within the logistics business. Longitudinal studies have the potential to monitor and assess the efficacy of leadership development activities over an extended period, therefore offering significant insights into their enduring effects. Furthermore, conducting comparison studies across several industries may provide a more comprehensive perspective, therefore enriching our comprehension of leadership dynamics in the logistics field in relation to other sectors.

In conclusion, this study significantly advances our knowledge of leadership in the logistics industry, offering a rich tapestry of insights that can inform both academia and industry practice. By continuously refining our understanding and strategies related to leadership, the logistics sector can pave the way for resilient, adaptable, and visionary leaders, ensuring a robust future in the face of ever-evolving challenges.

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