

Women's Leadership Characteristics Role on Agricultural Supply Chain Effectiveness: A Study of Women's Experiences and Perspectives in Vietnam

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Effective leadership has emerged as a critical determinant in enhancing supply chain (SC) performance and is increasingly recognised globally for its role in improving business outcomes. Despite its importance, further scholarly attention is warranted. This study investigates the influence of women's leadership traits—specifically, team collaboration, adaptability, and prompt responsiveness—on the effectiveness of the agricultural SC in Vietnam. Additionally, it explores the mediating function of team effectiveness in the relationship between these leadership traits and agricultural SC performance. Primary data were collected through survey questionnaires distributed to women engaged in the agricultural sector. The study assessed data reliability and the interrelationships among the variables using Smart-PLS. The findings revealed that team collaboration, adaptability, and responsiveness positively correlate with agricultural SC effectiveness in the Vietnamese context. Furthermore, team effectiveness was found to significantly mediate the relationship between these leadership characteristics and SC performance. These insights offer valuable guidance for policymakers in formulating strategies aimed at enhancing agricultural SC outcomes through the development of women's leadership capacities.

Keywords: Women's Leadership Characteristics, Team Collaboration, Flexibility, Team Effectiveness, Quickness, Agricultural SC Effectiveness.

Introduction

Agriculture remains a foundational pillar of Vietnam's economy, offering employment to a large segment of the population. The success of the country's agricultural sector hinges on the effective coordination and strategic management of its complex SC networks to achieve financial viability and remain competitive. Globally, increasing emphasis is placed on empowering women with greater decision-making authority within agricultural enterprises. Women in leadership positions contribute significantly to supply chain advancement through their collaborative competencies and strategic responsiveness (Li, 2020). This study explores the influence of female leadership attributes on agricultural SC outcomes, as well as the integrative role of team effectiveness in facilitating these impacts. A core element of women's leadership is team collaboration, which plays a decisive role in enhancing agricultural SC performance. As highlighted by Zajac et al. (2021), collaboration enables teams to achieve superior results through open communication, mutual respect, and a collective pursuit of common objectives. In food supply chain systems, close coordination among producers, suppliers, and retailers is vital. Leaders who foster cohesive team dynamics are thus indispensable. Female leaders who cultivate inclusive dialogue and champion teamwork are capable of accelerating and optimising supply chain operations by resolving challenges

efficiently and maintaining collective focus (Ruel & Fritz, 2021). Robust teamwork enables SCs to better navigate disruptions and leverage emerging opportunities. Flexibility is another crucial leadership trait among women that contributes to the success of agricultural SCs. The agricultural sector is particularly susceptible to external shocks, including fluctuating weather patterns and shifting market dynamics driven by evolving consumer demands (Escarcha et al., 2020). Leaders demonstrating adaptability are better equipped to manage uncertainty by reallocating resources, implementing contingency plans, and modifying operational strategies. Zhao et al. (2024) affirm that women occupying senior roles within SCs offer the resilience and versatility required to maintain continuity during unexpected disruptions. Their ability to adapt and execute timely decisions enhances SC efficiency amid volatile conditions.

The third key leadership dimension explored in this study is prompt decision-making, which has been identified as essential in mitigating the adverse impacts of delays within agricultural SCs (Newman, Fast, & Harmon, 2020). Timely and effective decision-making is vital, as prolonged response times can severely disrupt supply operations. Women leaders improve SC performance by swiftly addressing logistical issues, quality control challenges, and market fluctuations (Jha, Agi, & Ngai, 2020). Through rapid intervention, they prevent delays and minimise material losses, thereby strengthening SC outcomes.

Team effectiveness amplifies the positive influence of these leadership traits on SC performance. Productive teams enhance collaborative processes, improving overall performance (Black et al., 2019). Transparent communication and aligned goals enable teams to implement leadership directives efficiently. As Aksekili & Stettina (2021) observe, women who prioritise team synergy are more likely to generate favourable outcomes by aligning team capabilities with SC objectives. Effective teamwork, combined with collaborative leadership, leads to more consistent and goal-oriented SC operations.

Moreover, flexibility is most impactful when supported by effective teams. Leaders who encourage adaptability within their teams foster a culture of innovation and problem-solving in the face of unforeseen challenges (Castillo & Trinh, 2019). Functional teams act as conduits for extending the benefits of flexibility throughout the organisation. Srinivasan, Hamdani, & Ma (2021) argue that effective teams, led by adaptable leaders, respond rapidly to SC disruptions by devising alternative strategies that sustain operational flow. Women leaders, when supported by cohesive teams, enhance SC adaptability and efficiency. Decision-making speed also yields greater impact when executed within the framework of team effectiveness. Women leaders capable of rapid decision-making shape the responsiveness of their teams by delegating responsibilities and fostering shared commitment to organisational vision (Gleba et al., 2022). Teams that are guided by clear objectives and comprised of skilled members respond quickly and effectively. According to Shyaka et al. (2022), timely decision-making by women leaders translates into tangible SC improvements, such as reduced delivery times and fewer operational errors. Strong teams thus empower women leaders to enact swift decisions that produce sustainable results.

This study seeks to assess how female leadership, particularly through fostering collaboration and facilitating rapid decision-making, enhances agricultural SC effectiveness in Vietnam. It also examines the extent to which these leadership characteristics are directly linked to SC outcomes and how team effectiveness bridges this relationship. Using empirical data, the research aims to illustrate how women leaders enable SCs to adapt more effectively and function more efficiently. Although existing literature acknowledges the significance of women in SC leadership, substantial knowledge gaps remain. Research focusing on women's leadership in Vietnam's agricultural context is particularly limited, despite ongoing issues such as gender bias and market instability. While leadership traits have been examined, their interaction with team effectiveness and SC outcomes remains underexplored. This study contributes new insight by integrating gender and leadership perspectives within SC research. The subsequent section presents the literature review and the methodology adopted for data collection and analysis to evaluate the hypothesised relationships.

Literature Review

Numerous scholars concur that effective teamwork significantly enhances the performance of agricultural supply chains. When members of the supply chain engage in cooperative efforts, operational processes become more synchronised, thereby increasing overall efficiency. Competent teams facilitate the rapid exchange of crucial information—such as market demands, inventory levels, and delivery schedules—thereby

reducing the risk of mismatches between supply and demand (Karlsson et al., 2023). As noted by Nha Trang et al. (2022), collaboration among farmers and their supply chain partners ensures operational alignment and reduces delays in the distribution of agricultural produce. Given the sector's sensitivity to environmental variability, market fluctuations, and the perishable nature of goods, agricultural supply chains heavily rely on inter-organisational cooperation. Baah, Acquah, & Ofori (2022) argue that trust and transparent communication are essential in fostering strong partnerships across the supply network. These elements create a conducive environment for joint problem-solving and the formulation of rapid, effective solutions. The integration of advanced technologies through collaborative partnerships also enhances productivity and limits wastage. Teams that share aligned responsibilities and objectives operate more cohesively, driven by a mutual goal of improving supply chain performance. Karlsson et al. (2023) found that high-performing teams contribute to cost reductions in supply networks while optimising resource allocation to support long-term sustainability and resilience. In the context of agricultural supply chains, such teamwork not only improves process flow but also strengthens the system's ability to withstand market volatility. Thus, it can be concluded that,

H1: Team collaboration plays a significant role on agricultural supply chain effectiveness.

Agricultural supply chains must maintain a high degree of flexibility, as such adaptability enables them to function more effectively under uncertain conditions. These supply chains operate within dynamic environments shaped by climatic disturbances, market variability, seasonal demand shifts, and global political influences. As highlighted by Katsaliaki, Galetsi, & Kumar (2022), supply chains exhibit stronger performance through resilience when they possess the capacity to adjust operations and respond swiftly to external disruptions. Adaptable supply chains are better positioned to mitigate risk and sustain operational continuity. Firms that can reschedule production timelines and alter sourcing strategies—such as switching raw material suppliers—contribute to enhanced supply chain stability. The ability to modify distribution routes ensures uninterrupted product flow, even amid adverse conditions (Munirathinam, 2020). This is particularly critical in agriculture, where supply chains must accommodate the perishability of goods and the cyclical nature of production. Flexible leadership plays a pivotal role in embedding adaptability within supply chain networks. Sawyerr & Harrison (2020) found that leaders who embrace change and effectively resolve challenges guide supply chains towards appropriate responses in the aftermath of disruptions. By employing strategic shifts and judicious resource allocation, such leaders contribute to improved business outcomes. Team-level flexibility is further enhanced when leaders foster a collaborative environment in which members can identify and address issues proactively, preventing disruption to SC activities (Katsaliaki et al., 2022). Agricultural supply chains that remain responsive to evolving circumstances are more likely to secure competitive market positions and endure fluctuations in external conditions. Accordingly, we propose the following hypothesis,

H2: Flexibility plays a significant role on agricultural supply chain effectiveness.

The capacity to make prompt decisions and act efficiently is a key determinant of performance within agricultural supply chains. Timely decision-making, particularly concerning perishable produce, significantly enhances operational outcomes in the agricultural sector. According to [Sodhi & Tang \(2021\)](#), supply chains that respond swiftly are more capable of meeting market demands, mitigating risks, and capitalising on emerging opportunities. Accelerated decision-making within agricultural supply chains leads to improved efficiency and responsiveness. Effective leadership is characterised by the ability to rapidly identify problems and implement immediate solutions to issues such as delivery disruptions, quality inconsistencies, or shifts in customer requirements ([Omar, Minoufekar, & Plapper, 2019](#)). Such quick responsiveness minimises risk exposure and ensures the continuous flow of agricultural goods. During logistical challenges, such as transportation bottlenecks, leaders who act decisively enable more efficient movement of goods, safeguarding product quality and delivery timelines. In today's technologically driven environment, supply chain management increasingly relies on real-time data to facilitate rapid and informed decisions. [Oliveira & Handfield \(2019\)](#) argue that by leveraging monitoring systems and analytical platforms, decision-makers gain timely insights that allow for swift and accurate responses. These agile management practices enhance competitive advantage by reducing lead times, improving customer satisfaction, and streamlining operations. Leaders who prioritise operational efficiency and proactively resolve issues model fast-paced decision-making, which motivates their teams to replicate these practices ([Sodhi & Tang, 2021](#)). When leadership aligns with rapid supply chain execution, the entire system becomes more resilient to uncertainty. Based on this reasoning, we propose the following hypothesis,

H3: Quickness plays a significant role on agricultural supply chain effectiveness.

Agricultural supply chains demonstrate improved performance when team collaboration is strong. Open communication and mutual trust among team members are critical in ensuring coordinated decision-making within the complex processes of agricultural production and distribution. As noted by [Jimenez-Jimenez, Martínez-Costa, & Sanchez Rodriguez \(2019\)](#), team effectiveness enhances supply chain outcomes when collaborative efforts are well-established among partners. Teams become truly effective when they consistently meet their objectives and cultivate a cohesive environment built on shared positive experiences. According to [Bag et al. \(2020\)](#), effective team functioning is a prerequisite for achieving enhanced supply chain performance. Collaborative success hinges on a clear understanding of roles and responsibilities, especially in agricultural supply chains where numerous stakeholders—including producers, suppliers, and distributors—must work in concert to achieve common goals. For collaborative logistics strategies to yield meaningful improvements, teams must be well-aligned, goal-oriented, and capable of working together seamlessly ([Wankmüller & Reiner, 2020](#)). The influence of leadership is central to facilitating such team dynamics. Leaders who foster inclusive environments, promote transparent dialogue, and provide strategic guidance enable teams to reach peak performance. By fostering collaboration within an

effective team structure, supply chains can optimise resource utilisation and solve challenges more efficiently. [Bag et al. \(2020\)](#) further demonstrated that cohesive and well-coordinated teams elevate both the performance and sustainability of agricultural supply chains by adapting swiftly to operational disruptions. In this regard, effective teams serve as a conduit through which collaboration translates into tangible supply chain improvements. Consequently, we propose the following hypothesis:

H4: Team effectiveness mediates the relation between team collaboration and agricultural supply chain effectiveness.

The capacity to respond swiftly to evolving circumstances is crucial for enhancing the performance of agricultural supply chains. Flexibility enables supply chain participants to better adapt to fluctuations in market demand, weather conditions, and transportation challenges. [Singh \(2024\)](#) emphasises that effective teams function as a critical link between flexible strategies and superior supply chain outcomes within agricultural contexts. Such teams provide vital support to leadership by ensuring that adaptive measures are successfully implemented. When team members trust one another and share clear organisational objectives, they can collaboratively address problems with greater efficiency ([Agbejule, Rapo, & Saarikoski, 2021](#)). Within farming supply chains, effective teams must cooperate to execute flexible decisions, such as reallocating resources or adjusting production schedules. For instance, adapting distribution routes in response to supply disruptions requires a cohesive team that understands its role and works harmoniously to fulfil overall supply chain goals.

The synergy between team performance and flexibility is optimised under strong leadership. [Schoemaker & Day \(2021\)](#) assert that leaders who promote readiness for change cultivate teams capable of excelling amid both gradual complexities and abrupt market fluctuations. Well-functioning teams assist organisations in optimising resource utilisation and managing risks associated with flexible operational strategies. Consequently, effective teams enhance supply chain outcomes by facilitating the smooth execution of adaptive decisions, minimising disruption to performance. Such team effectiveness enables agricultural supply chains to fully leverage the advantages of flexibility. Hence, we propose the following hypothesis,

H5: Team effectiveness mediates the relation between flexibility and agricultural supply chain effectiveness.

Agricultural supply chains perform optimally when teams are capable of making rapid decisions that yield positive outcomes. [Shyaka et al. \(2022\)](#) highlight that in the fast-paced agricultural sector, swift responses enable supply chains to remain agile and meet seasonal demands before product spoilage occurs. The effectiveness of these rapid decisions is largely contingent upon the performance of the team involved. Team performance reflects the collective ability to collaborate efficiently, achieve shared goals, and ensure that expedited decisions translate into practical results. Research by [Gleba et al. \(2022\)](#) indicates that timely managerial decisions are realised only through the coordinated efforts of skilled and cohesive teams. When leaders expedite resource distribution during supply chain disruptions, they mitigate delays and reduce losses; however, this success is

dependent on the team's capability to execute these decisions in a synchronised manner. Conversely, shortcomings in team effectiveness can hinder the successful implementation of fast decisions, leading to issues such as incomplete information flow and impaired collaboration. Effective leaders foster high-performing teams by establishing accountability frameworks that build trust and enhance communication channels (Yue, Men, & Ferguson, 2019). Teams that operate efficiently are able to swiftly enact decisions and accurately carry them through the entire supply chain process. According to Gleba et al. (2022), strong team performance not only facilitates quicker operations but also improves responsiveness to disruptions and accelerates overall process efficiency. Thus, team performance serves as a vital link between leadership agility and positive supply chain results by enabling adaptation to evolving environmental conditions. Based on this, we propose the following hypothesis,

H6: Team effectiveness mediates the relation between quickness and agricultural supply chain effectiveness.

Research Methods

This study investigates the influence of women's leadership attributes—specifically team collaboration, flexibility, and quickness—on the effectiveness of the agricultural supply chain in Vietnam. Additionally, it explores the mediating function of team effectiveness in the relationships between team collaboration, flexibility, quickness, and agricultural supply chain performance within the Vietnamese context. Primary data were collected via survey questionnaires administered to women engaged in the agricultural sector. The measurement items for the variables were sourced from established scales: team collaboration was assessed using seven

items adapted from Kaya (2023); flexibility was measured through five items also derived from Kaya (2023); quickness was evaluated with six items taken from Kaya (2023); team effectiveness was measured using five items adapted from van den Adel, de Vries, and van den Adel, de Vries, & van Donk (2023); and agricultural supply chain effectiveness was assessed with six items extracted from Sundram, Chandran, & Bhatti (2016). Details of these measurement items are provided in Table 1. The study targeted women involved in the agricultural sector as respondents, employing purposive sampling for their selection. Surveys were distributed to the chosen participants both through personal visits and via email. Out of 503 questionnaires disseminated, 357 were returned, yielding a response rate of 70.97 per cent. Furthermore, data reliability and the relationships among variables were assessed using Smart-PLS, a robust analytical tool known for delivering reliable outcomes even when dealing with complex models (Hair et al., 2017). The research utilised one predictor variable, women's leadership characteristics, encompassing three dimensions: team collaboration (TC), flexibility (FLX), and quickness (QN). Additionally, the model included a mediating variable, team effectiveness (TE), and one dependent variable, agricultural supply chain effectiveness (ASCE). The conceptual framework is illustrated in Figure 1.

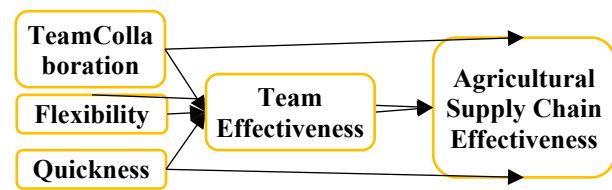


Figure 1: Theoretical Model.

Table 1: Measurements and Variables.

Items	Statements	Sources
Team Collaboration		
TC1	I pays attention in developing cooperation among our employees.	(Kaya, 2023)
TC2	I includes subordinates in the decision-making processes.	
TC3	I give rewards on team performance instead of individual performance.	
TC4	I always pays attention to team cooperation.	
TC5	I always pays attention in developing effective feedback culture.	
TC6	I allows employees to demonstrate their leadership.	
TC7	I has a high ability to persuade its subordinates.	
Flexibility		
FLX1	I makes flexible plans.	(Kaya, 2023)
FLX2	I always pays attention to the flexibility to produce different amounts of products and services.	
FLX3	I am flexible regarding personnel exchange between departments.	
FLX4	I always allows subordinates to be flexible about their working hours.	
FLX5	I do not insist on subordinates doing work they do not believe in.	
Quickness		
QN1	I always pays attention to delivering products to the customer as soon as possible.	(Kaya, 2023)
QN2	My decision-making speed is high about in production processes.	
QN3	I acts quickly to produce products that is according to the demand in the market.	
QN4	I feels environmental and technological changes.	
QN5	I has the knowledge, skills and ability to adapt new technology.	
QN6	I strives to respond quickly to changes in customers' expectations.	
Team Effectiveness		
TE1	We worked together in a well-coordinated fashion.	(van den Adel et al., 2023)
TE2	We had very few misunderstandings about what to do.	
TE3	We needed to backtrack and start over a lot.	
TE4	We accomplished the task smoothly and efficiently.	
TE5	There was much confusion about how we would accomplish the task.	
Agricultural Supply Chain Effectiveness		
ASCE1	Organization considers quality as number one criterion in selecting suppliers.	Kaliani Sundram, Chandran, & Awais Bhatti (2016)
ASCE2	Organization regularly solve problems jointly with its suppliers.	
ASCE3	Organization helps its suppliers to improve their product quality.	
ASCE4	Organization has continuous improvement programs that include its key suppliers.	
ASCE5	Organization include its key suppliers in its planning and goal setting activities.	
ASCE6	Organization actively involves its key suppliers in new product development processes.	

Research Findings

The study results initially present the correlation among items, which reflects convergent validity. This was assessed through composite reliability (CR) and Cronbach's Alpha, both yielding values exceeding the

threshold of 0.70. Furthermore, average variance extracted (AVE) and factor loadings were examined, with both measures showing values above 0.50. These findings indicate strong correlations among the items, thereby confirming the presence of convergent validity. The detailed results are presented in [Table 2](#) and [Figure 2](#).

Table 2: Convergent Validity.

Constructs	Items	Loadings	Alpha	CR	AVE
Agricultural SC Effectiveness	ASCE1	0.714	0.845	0.886	0.564
	ASCE2	0.708			
	ASCE3	0.764			
	ASCE4	0.778			
	ASCE5	0.750			
	ASCE6	0.789			
Flexibility	FLX1	0.801	0.901	0.927	0.718
	FLX2	0.878			
	FLX3	0.853			
	FLX4	0.891			
	FLX5	0.810			
Quickness	QN1	0.884	0.922	0.939	0.720
	QN2	0.866			
	QN3	0.798			
	QN4	0.806			
	QN5	0.873			
	QN6	0.859			
Team Collaboration	TC1	0.853	0.896	0.918	0.617
	TC2	0.814			
	TC3	0.810			
	TC4	0.704			
	TC5	0.738			
	TC6	0.790			
	TC7	0.780			
Team Effectiveness	TE1	0.873	0.857	0.898	0.641
	TE2	0.808			
	TE3	0.859			
	TE4	0.799			
	TE5	0.644			

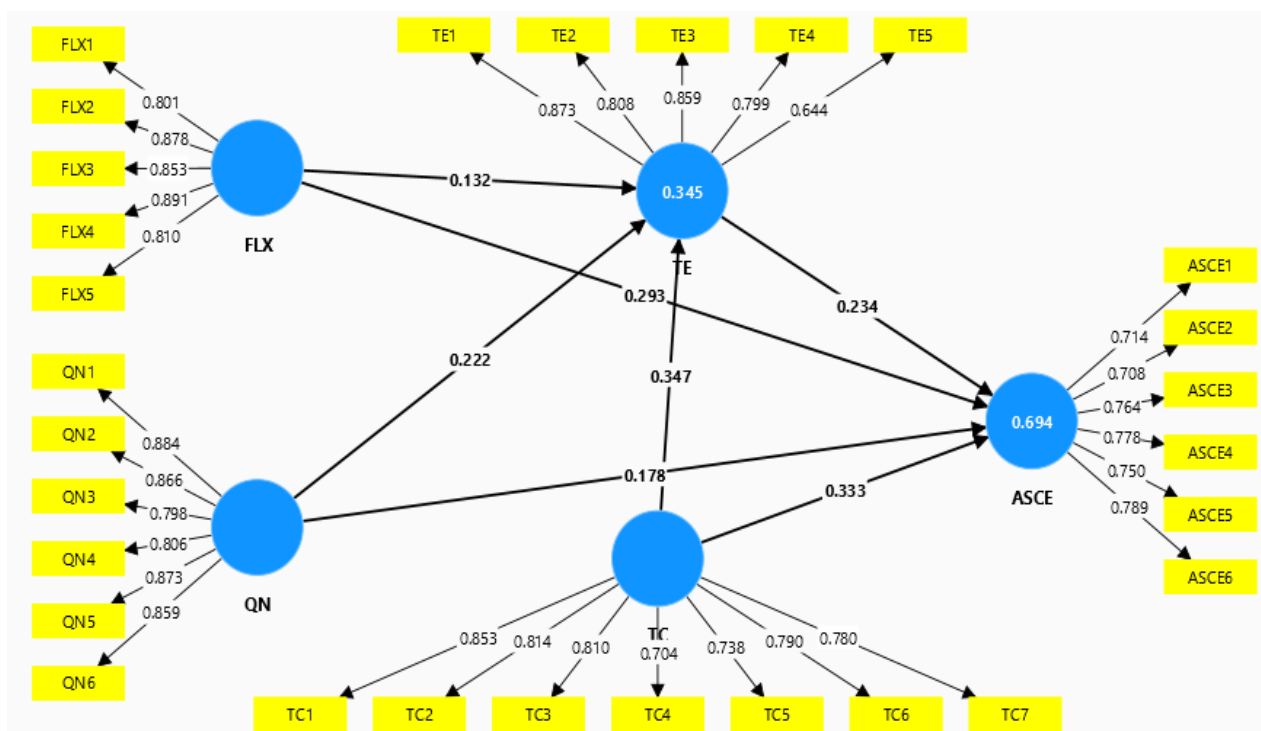


Figure 2: Measurement Model Assessment.

The study findings also present the correlations among variables, which assess discriminant validity. This was evaluated using the Fornell-Larcker criterion and cross-loadings. Both tests demonstrated that the correlations of each construct with itself were higher than those with other variables. These results indicate low correlations between distinct variables, thereby confirming the validity of discriminant validity. The corresponding data are

displayed in [Tables 3 and 4](#).

Table 3: Fornell Larcker.

	ASCE	FLX	QN	TC	TE
ASCE	0.751				
FLX	0.695	0.847			
QN	0.595	0.537	0.848		
TC	0.714	0.599	0.462	0.786	
TE	0.625	0.459	0.454	0.529	0.801

Table 4: Cross-Loadings.

	ASCE	FLX	QN	TC	TE
ASCE1	0.714	0.541	0.444	0.510	0.540
ASCE2	0.708	0.541	0.459	0.407	0.668
ASCE3	0.764	0.461	0.522	0.555	0.440
ASCE4	0.778	0.489	0.464	0.549	0.422
ASCE5	0.750	0.545	0.385	0.608	0.331
ASCE6	0.789	0.550	0.405	0.592	0.403
FLX1	0.523	0.801	0.458	0.492	0.291
FLX2	0.628	0.878	0.450	0.533	0.382
FLX3	0.632	0.853	0.456	0.525	0.372
FLX4	0.605	0.891	0.494	0.521	0.458
FLX5	0.549	0.810	0.421	0.465	0.427
QN1	0.552	0.481	0.884	0.393	0.416
QN2	0.537	0.457	0.866	0.393	0.429
QN3	0.504	0.431	0.798	0.389	0.389
QN4	0.472	0.457	0.806	0.436	0.336
QN5	0.489	0.466	0.873	0.378	0.372
QN6	0.463	0.442	0.859	0.366	0.355
TC1	0.636	0.601	0.428	0.853	0.430
TC2	0.563	0.510	0.433	0.814	0.383
TC3	0.476	0.379	0.309	0.810	0.469
TC4	0.541	0.384	0.327	0.704	0.396
TC5	0.668	0.505	0.393	0.738	0.439
TC6	0.560	0.524	0.359	0.790	0.350
TC7	0.436	0.348	0.263	0.780	0.433
TE1	0.569	0.443	0.374	0.499	0.873
TE2	0.469	0.358	0.289	0.428	0.808
TE3	0.497	0.319	0.374	0.380	0.859
TE4	0.436	0.259	0.298	0.338	0.799
TE5	0.498	0.417	0.452	0.435	0.644

The study results further assess the correlations among variables, referred to as discriminant validity. This was evaluated using the Heterotrait-Monotrait (HTMT) ratio, with the test yielding values below 0.85. These findings indicate low correlations between variables, thereby confirming the validity of discriminant validity. The outcomes are presented in [Table 5](#). Moreover, the findings reveal that team collaboration, flexibility, and quickness are positively associated with agricultural supply chain effectiveness in Vietnam, thereby supporting hypotheses H1, H2, and H3. Additionally, the results demonstrate that team effectiveness significantly mediates the relationships

between team collaboration, flexibility, quickness, and agricultural supply chain effectiveness, confirming hypotheses H4, H5, and H6. These relationships are detailed in [Table 6](#) and illustrated in [Figure 3](#).

Table 5: Heterotrait-Monotrait Ratio.

	ASCE	FLX	QN	TC	TE
ASCE					
FLX	0.794				
QN	0.671	0.590			
TC	0.813	0.659	0.504		
TE	0.725	0.509	0.502	0.595	

Table 6: Path Analysis.

Relationships	Beta	Standard Deviation	T Statistics	P Values
FLX -> ASCE	0.293	0.048	6.090	0.000
FLX -> TE	0.132	0.063	2.107	0.036
QN -> ASCE	0.178	0.037	4.797	0.000
QN -> TE	0.222	0.059	3.774	0.000
TC -> ASCE	0.333	0.050	6.641	0.000
TC -> TE	0.347	0.068	5.108	0.000
TE -> ASCE	0.234	0.048	4.920	0.000
FLX -> TE -> ASCE	0.031	0.014	2.214	0.034
QN -> TE -> ASCE	0.052	0.017	2.997	0.003
TC -> TE -> ASCE	0.081	0.025	3.204	0.001

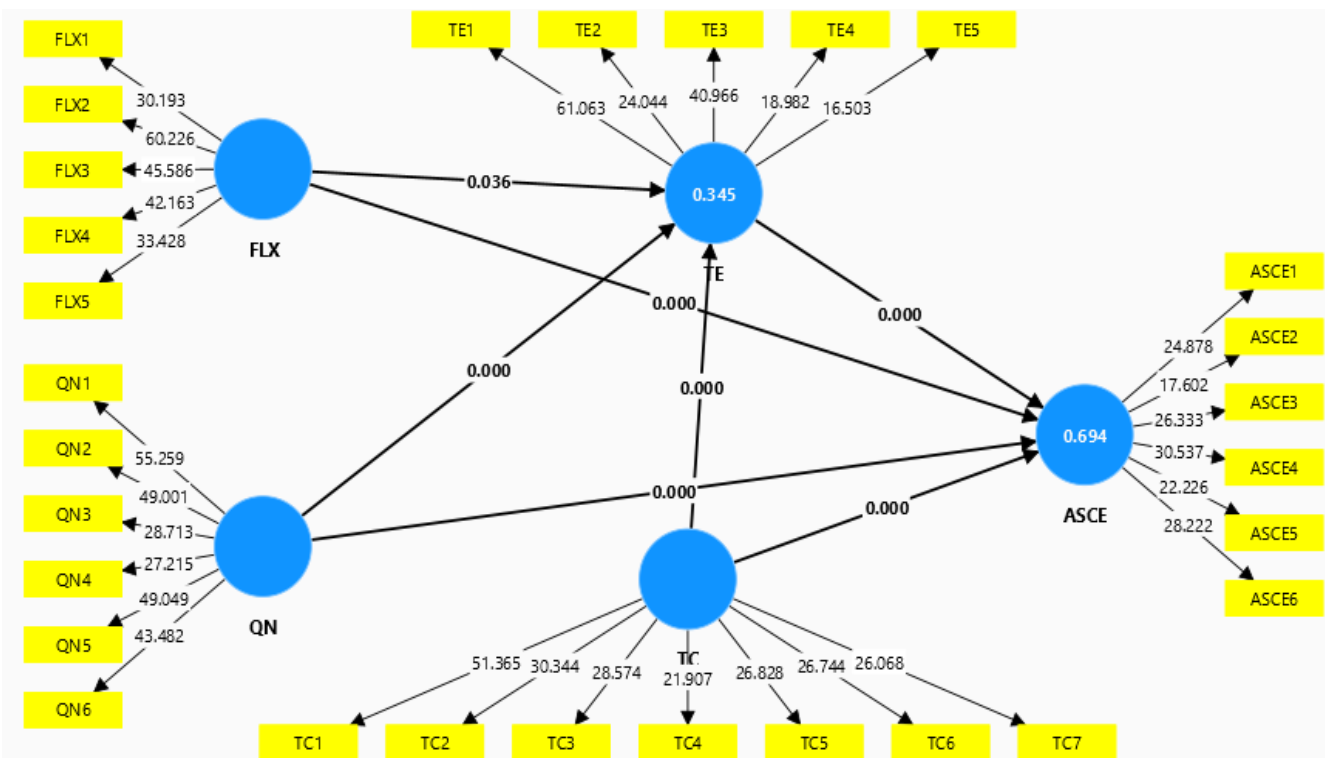


Figure 3: Structural Model Assessment.

Discussion

This study investigates the influence of women leaders on agricultural supply chains in Vietnam, focusing on their collaborative team approach as well as their agility and adaptability in the workplace. The findings illustrate how these leadership attributes collectively contribute to enhancing the efficiency of farming supply chains. Evidence from the research indicates that team collaboration generates direct positive impacts on agricultural supply chain operations. Female leaders foster connections that encourage inclusive dialogue and joint decision-making throughout the supply chain. By strengthening cooperation between producers, suppliers, and retailers, women leaders facilitate improved supply chain outcomes. Existing literature, such as Wang & Hu (2020), supports the notion that collaboration within supply chains enhances operational performance. Given the complexity of logistics and market demands involving multiple agricultural stakeholders, robust teamwork is essential (Pietrantonio et al., 2024). Women leaders promote better supply chain results through effective resource utilisation and streamlined processes. Moreover, agricultural supply chain performance is significantly bolstered by management's capacity for swift adaptation. Female leaders demonstrate strong problem-solving and decision-making skills, enabling them to respond effectively to challenges posed by weather fluctuations and market variability. Their adaptive strategies help maintain seamless supply chain operations with minimal disruption. Research by Katsaliaki et al. (2022) highlights that flexible supply chain practices foster resilience, enabling faster recovery from disruptions while maintaining superior performance. In the face of volatility inherent in agricultural operations, organisations must adjust growing season schedules and maintain diverse supplier networks. Women leaders who

embrace change cultivate an innovative and responsive environment, thereby enhancing agricultural supply chain effectiveness.

The speed at which a leader makes decisions directly impacts agricultural supply chain performance. Women leaders who act swiftly enable supply chains to respond promptly to emerging issues. Rapid responses are crucial as agricultural products spoil quickly if delayed. Research by Goshime, Kitaw, & Jilcha (2019) demonstrates that faster processes reduce delivery times, increase customer satisfaction, and minimise waste. This study indicates that early decisions on transport and inventory improve product flow. Similarly, Reardon et al. (2019) found that decisive women leaders foster positive operational changes, enhancing supply chain efficiency. Team effectiveness strengthens supply chain outcomes through improved collaboration. Efficient teams achieve results by defining roles clearly, fostering trust, and ensuring accountability. Chauhan et al. (2022) highlight that successful teams align collaborative efforts with business goals to enhance performance. Given the complex stakeholder involvement in agricultural supply chains, effective teams promote joint planning and resource sharing, which improve resilience and overall results (Allaoui, Guo, & Sarkis, 2019). Women leaders who build strong team cohesion drive better supply chain success.

Team effectiveness is crucial for organisations to adapt their agricultural supply chains and achieve better results. Successful supply chains require both flexible strategies and well-performing teams to manage shifting market conditions. Businesses with strong problem-solving teams that communicate effectively ensure smooth transitions during periods of change. Research by Sudan et al. (2023) shows that effective teams enable quicker decision-making in response to unpredictable customer demands and supplier disruptions,

resolving workflow issues efficiently. Kumar & Sharma (2021) emphasise that teams must collaborate closely to make timely decisions about resource allocation and partner selection to succeed. Women leaders who foster cohesive teams integrate flexibility into their strategic planning, enhancing supply chain performance. Team effectiveness acts as the bridge between swift decision-making and improved agricultural supply chain outcomes. Rapid decisions rely on effective teams to implement plans promptly, addressing time-sensitive challenges. Hohenstein (2022) notes that teams making quick, coordinated decisions enhance efficiency by reducing delays and managing risks. When facing transport delays or supply shortages, teams led by women execute fast, coordinated responses (Zhao et al., 2024). Such teams deliver measurable performance improvements, boosting adaptability and strengthening supply chain resilience. This analysis highlights how diverse female leadership qualities influence the success of agricultural supply chains. Through effective collaboration with skilled, agile teams, women leaders foster innovative solutions within Vietnam's complex agricultural sector. These findings demonstrate how women leaders contribute to building resilient and efficient supply chain systems.

Conclusion

The research reveals that women leaders enhance agricultural supply chains in Vietnam by fostering teamwork and swiftly adapting to change. These leadership qualities directly improve supply chain efficiency and responsiveness. Additionally, the study shows that well-performing teams amplify the impact of individual leadership traits. By promoting collaboration and rapid decision-making, women leaders cultivate flexible teams that deliver superior supply chain outcomes. Effective leadership helps mitigate risks such as market volatility and distribution challenges in the agricultural sector. This research demonstrates how strong leadership and supply chain performance combine to drive better business results in Vietnamese agricultural firms. Women leaders play a crucial role in building resilient networks that effectively manage change.

Implications

The research outcomes offer important practical and theoretical insights for Vietnam's agricultural supply chain sector. This study contributes to leadership theory by illustrating how women's skills in team-building, combined with adaptability and rapid decision-making, drive strong supply chain performance. The findings reveal that team effectiveness serves as a vital link between leadership qualities and supply chain success, highlighting improved approaches to leadership development centred on teamwork to enhance supply chain resilience. Agricultural organisations should implement initiatives that support female leadership, such as team planning exercises and training programmes focused on agility and speed. By investing in such development, the sector can better respond to market fluctuations and environmental risks through effective women's leadership. The results underline the importance for policy-makers and industry leaders to embrace gender-inclusive leadership strategies that strengthen the efficiency and sustainability of Vietnam's agricultural supply chains. These insights will assist decision-makers in refining

leadership practices to better support the agricultural industry.

Limitations and Future Directions

This research has certain limitations that require careful consideration when interpreting the findings. The exclusive focus on Vietnam's agricultural sector may restrict the generalisability of the results to other industries. The sample, consisting solely of women leaders within Vietnamese agricultural supply chains, limits the representation of diverse regional leadership experiences. Furthermore, reliance on self-reported data from leaders introduces the potential for bias regarding women's leadership in supply chains. The cross-sectional design, examining data at a single point in time, prevents assessment of how female leadership influences agricultural supply chain development longitudinally. Future studies should expand the sample size, include multiple industries, and adopt longitudinal approaches to better capture changes in supply chain performance over time.

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