

# Strategic Foresight Capability, Dynamic Capabilities, Organizational Resilience, Innovation Speed, and Firm Performance: Testing a Structural Equation Model

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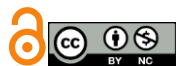
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## ABSTRACT

**Objective:** The purpose of this study was to examine the direct and indirect relationships among strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance through a comprehensive structural equation model among organizations operating in Canada.

**Methods and Materials:** This study employed a quantitative, cross-sectional design using structural equation modeling (SEM). The research population consisted of managers, executives, innovation specialists, and strategic planning professionals employed in medium-sized and large organizations across Canada. Using a stratified random sampling approach, data were collected from 542 participants representing manufacturing, technology, financial services, healthcare, logistics, and professional service sectors. Data were gathered using standardized instruments measuring strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance. The psychometric properties of the instruments were evaluated through confirmatory factor analysis, composite reliability, and convergent validity assessments. Data analysis was conducted using SPSS 29 and AMOS 29. The measurement and structural models were assessed using maximum likelihood estimation, bootstrap procedures, and multiple model-fit indices, including  $\chi^2/df$ , CFI, TLI, IFI, GFI, RMSEA, and SRMR.

**Findings:** The measurement model demonstrated excellent fit to the data ( $\chi^2/df = 2.31$ , CFI = .957, TLI = .952, IFI = .957, GFI = .924, RMSEA = .049, SRMR = .041). Structural equation modeling revealed that strategic foresight capability positively influenced dynamic capabilities ( $\beta = .73$ ,  $p < .001$ ), organizational resilience ( $\beta = .41$ ,  $p < .001$ ), and firm performance ( $\beta = .18$ ,  $p < .001$ ). Dynamic capabilities significantly affected organizational resilience ( $\beta = .48$ ,  $p < .001$ ) and innovation speed ( $\beta = .56$ ,  $p < .001$ ). Organizational resilience exerted a positive

effect on innovation speed ( $\beta = .29, p < .001$ ), while innovation speed emerged as the strongest predictor of firm performance ( $\beta = .61, p < .001$ ). The model explained 61% of the variance in dynamic capabilities, 67% of the variance in organizational resilience, 71% of the variance in innovation speed, and 74% of the variance in firm performance. Bootstrap analyses further confirmed significant indirect effects, indicating that dynamic capabilities, organizational resilience, and innovation speed jointly mediated the relationship between strategic foresight capability and firm performance.

**Conclusion:** The findings demonstrate that strategic foresight capability serves as a foundational organizational capability that enhances firm performance through the development of dynamic capabilities, organizational resilience, and innovation speed. Organizations that systematically anticipate future developments, adapt resources effectively, maintain resilience under uncertainty, and accelerate innovation processes are more likely to achieve superior performance outcomes. The study contributes to strategic management literature by providing empirical evidence for an integrated capability-based model of organizational success in dynamic and uncertain environments.

**Keywords:** *Strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, firm performance.*

## 1 Introduction

The contemporary business environment is characterized by unprecedented levels of uncertainty, technological disruption, geopolitical volatility, environmental turbulence, and rapidly evolving customer expectations. Organizations across industries are increasingly challenged to maintain competitiveness while simultaneously adapting to complex and unpredictable external conditions. Traditional strategic planning approaches, which largely rely on historical trends and linear forecasting assumptions, have become insufficient for addressing the multifaceted challenges of the modern economy. As a result, scholars and practitioners have increasingly emphasized the importance of future-oriented organizational capabilities that enable firms not merely to react to change but to anticipate and shape emerging developments. Strategic foresight has consequently emerged as a critical managerial capability that supports the systematic exploration of future possibilities, identification of emerging opportunities and threats, and development of proactive strategic responses. Strategic foresight extends beyond conventional forecasting by integrating environmental scanning, scenario planning, horizon scanning, trend analysis, and future-oriented decision-making into organizational processes. Recent research suggests that organizations capable of developing strong foresight capabilities are better positioned to identify disruptive changes, recognize emerging market opportunities, and maintain sustainable competitive advantages in turbulent environments (Nguyen et al., 2025;

Purwanto et al., 2023; Sakellariou & Vecchiato, 2022). The growing relevance of foresight has become even more pronounced in the digital transformation era, where technological advancements occur at an accelerated pace and competitive boundaries are constantly redefined. Organizations that systematically monitor technological trajectories and anticipate future developments demonstrate superior adaptability and strategic responsiveness compared to firms relying solely on traditional planning approaches (Alhajjah & Alkshali, 2023; Rafee et al., 2023; Santos, 2026). Consequently, strategic foresight is increasingly viewed as a fundamental organizational competence for achieving long-term sustainability and performance.

The theoretical foundations of strategic foresight are closely linked to the dynamic capabilities perspective, which emphasizes the capacity of organizations to integrate, build, and reconfigure internal and external resources in response to changing environmental conditions. Dynamic capabilities have become one of the most influential frameworks for understanding how organizations sustain competitive advantage under conditions of uncertainty and disruption. Unlike operational capabilities, which focus on efficiency and routine execution, dynamic capabilities enable firms to sense environmental changes, seize emerging opportunities, and transform organizational resources to maintain strategic alignment with evolving market conditions. Recent scholarship has argued that strategic foresight serves as an important antecedent of dynamic capabilities because organizations must first recognize potential future developments before they can effectively adapt their

resources and strategic priorities (Laakkonen et al., 2025; Mohammadi, 2023). Foresight processes provide critical information and strategic insights that support managerial decision-making and organizational adaptation, thereby strengthening the sensing and opportunity-recognition dimensions of dynamic capabilities. Furthermore, the increasing prevalence of disruptive innovation and digital transformation has elevated the importance of dynamic capabilities as organizations seek to navigate technological shifts and emerging competitive landscapes. Studies examining organizational adaptation in digital environments have emphasized the role of meta-capabilities and adaptive organizational mechanisms in sustaining competitiveness under rapidly changing conditions (Razzak et al., 2022; Steiber & Teece, 2026). The interaction between foresight and dynamic capabilities therefore represents a crucial pathway through which organizations translate future-oriented knowledge into actionable strategic responses, enhancing their ability to compete and survive in increasingly uncertain markets.

Another construct that has gained considerable attention in contemporary management research is organizational resilience. While traditional management approaches frequently emphasized efficiency, optimization, and cost reduction, recent global disruptions such as pandemics, geopolitical conflicts, supply chain crises, and technological disruptions have highlighted the necessity of resilience as a strategic capability. Organizational resilience refers to the capacity of firms to withstand shocks, recover from adversity, adapt to changing conditions, and continue functioning effectively despite environmental turbulence. Rather than merely resisting disruptions, resilient organizations actively learn from challenges and use adversity as an opportunity for growth and transformation. Research has increasingly demonstrated that resilience contributes to long-term organizational sustainability, strategic flexibility, and competitive advantage. Organizations possessing higher levels of resilience are better equipped to maintain operational continuity, preserve stakeholder confidence, and sustain performance during periods of uncertainty (Husni, 2025; Ilmola-Sheppard & White, 2024). Environmental scanning and future-oriented strategic activities have been identified as important drivers of resilience because they enhance organizational awareness and preparedness for emerging threats and opportunities. By systematically monitoring environmental signals and anticipating future disruptions, organizations can develop proactive response strategies and strengthen their adaptive

capabilities (Alakaş et al., 2025; YahiaMarzouk & Jin, 2022). Similarly, dynamic capabilities contribute to resilience by enabling organizations to reconfigure resources, redesign processes, and implement strategic adjustments in response to changing conditions. Consequently, resilience can be conceptualized as an important outcome of both strategic foresight and dynamic capabilities, serving as a critical mechanism through which organizations sustain competitiveness under conditions of uncertainty.

Beyond organizational survival and adaptation, contemporary firms must also maintain innovation capabilities to achieve sustained growth and competitive differentiation. Innovation has long been recognized as a fundamental driver of organizational success; however, recent competitive dynamics have shifted attention from innovation outputs alone toward the speed with which innovations are developed, implemented, and commercialized. Innovation speed reflects an organization's ability to rapidly convert ideas into products, services, processes, and business models that create value for customers and stakeholders. In highly competitive and technology-intensive industries, delays in innovation implementation can significantly reduce market opportunities and weaken competitive positioning. Consequently, innovation speed has emerged as a critical determinant of organizational effectiveness and market success. Strategic foresight contributes to innovation speed by helping organizations identify emerging technologies, anticipate customer needs, and recognize future market trends before competitors. Through future-oriented knowledge generation and environmental scanning, foresight enhances the quality and timeliness of innovation-related decision-making (Duin et al., 2024; Santos, 2026). Similarly, dynamic capabilities facilitate innovation speed by enabling firms to mobilize resources, coordinate organizational activities, and implement strategic changes efficiently. Resilient organizations are also more likely to sustain innovation efforts during periods of disruption because they possess greater adaptive capacity and organizational flexibility. Prior research has demonstrated positive relationships among strategic agility, innovation responsiveness, and organizational performance, suggesting that adaptive and future-oriented organizations are better positioned to achieve superior innovation outcomes (Bassey et al., 2023; Manalu & Adzimatunur, 2024; Rand, 2024). Therefore, innovation speed may represent an important mediating mechanism linking strategic capabilities to organizational performance.

The growing emphasis on digital transformation has further reinforced the strategic importance of foresight, resilience, and innovation. Digital technologies are fundamentally transforming industries, business models, customer interactions, and competitive dynamics. Organizations increasingly rely on advanced analytics, artificial intelligence, automation, cloud computing, and digital ecosystems to create value and sustain competitiveness. However, successful digital transformation requires more than technological adoption; it demands strategic capabilities that enable organizations to anticipate future developments, adapt to changing environments, and innovate effectively. Recent studies have highlighted the interconnected roles of strategic foresight, digital readiness, strategic flexibility, and organizational adaptability in facilitating successful digital transformation initiatives (AbuShanab, 2024; Alqam et al., 2024). Leadership also plays a critical role in shaping organizational capabilities and fostering environments conducive to innovation and adaptation. Transformational leadership approaches encourage experimentation, strategic learning, and future-oriented thinking, thereby supporting the development of dynamic capabilities and organizational resilience (Adigwe, 2024; Elamin, 2024). Moreover, contemporary management frameworks emphasize holistic organizational alignment, integrating strategic planning, capability development, performance management, and innovation processes to achieve sustainable success (Gerlich, 2024; Hu & Ahmed Razman Bin Abdul, 2024). Supply chain complexity, procurement challenges, and global market interconnectedness further underscore the need for organizations to cultivate adaptive capabilities capable of navigating uncertainty and maintaining operational effectiveness (Cooper, 2024). Collectively, these developments suggest that organizational performance increasingly depends on a constellation of interconnected strategic capabilities rather than isolated managerial practices.

Despite growing scholarly interest in strategic foresight, dynamic capabilities, organizational resilience, and innovation management, several important gaps remain in the literature. Existing studies have frequently examined these constructs independently or have focused on isolated relationships among selected variables. For example, some investigations have explored the impact of strategic foresight on crisis management effectiveness, while others have examined the relationship between foresight and dynamic capabilities or between resilience and organizational

performance (Alhajajeh & Alkshali, 2023; Mohammadi, 2023; Ooi & Memon, 2025). Similarly, research has addressed the strategic value of foresight in creating competitive advantage and supporting innovation activities, yet comprehensive empirical models integrating these constructs remain relatively limited (Purwanto et al., 2023; Sakellariou & Vecchiato, 2022). Furthermore, many existing studies have adopted conceptual or qualitative approaches, creating a need for robust quantitative investigations capable of simultaneously testing multiple direct and indirect relationships. The integration of strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance within a single structural framework offers an opportunity to advance theoretical understanding and provide practical insights regarding the mechanisms through which organizations achieve superior performance in turbulent environments. Such an integrated perspective is particularly relevant in contemporary business contexts characterized by digital transformation, increasing uncertainty, and accelerated innovation cycles. Therefore, a comprehensive examination of these relationships may contribute significantly to both management theory and organizational practice.

Accordingly, the aim of this study was to test a comprehensive structural equation model examining the relationships among strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance among organizations operating in Canada.

## 2 Methods and Materials

This study employed a quantitative, cross-sectional survey design to examine the structural relationships among strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance. The research was conducted among medium-sized and large organizations operating in various industries across Canada, including manufacturing, technology, financial services, healthcare, logistics, and professional services. A structural equation modeling (SEM) approach was selected because of its suitability for simultaneously testing multiple direct and indirect relationships among latent constructs within a comprehensive theoretical framework.

The target population consisted of senior managers, middle managers, innovation directors, strategic planning specialists, and executives who possessed sufficient knowledge regarding their organizations' strategic practices,

innovation processes, and performance outcomes. A stratified random sampling approach was utilized to ensure representation from different sectors and organizational sizes. Data were collected from 542 participants employed in organizations located in major Canadian economic regions, including Ontario, British Columbia, Alberta, Quebec, and Nova Scotia. Prior to data collection, organizations were contacted through professional business networks, industry associations, and corporate directories. Participation was voluntary, and respondents were informed about the confidentiality and anonymity of their responses. Inclusion criteria required participants to have at least three years of managerial experience and active involvement in strategic decision-making processes. After screening for incomplete questionnaires, missing values, and response inconsistencies, all 542 questionnaires were retained for final analysis because they met the predefined quality criteria. The sample size exceeded the minimum recommendations for covariance-based structural equation modeling and provided adequate statistical power for testing the proposed model.

Data were collected using a structured questionnaire composed of five standardized measurement instruments adapted from established organizational and strategic management literature. All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Prior studies have consistently demonstrated satisfactory psychometric properties for all instruments, including construct validity, convergent validity, discriminant validity, and internal consistency reliability.

Strategic foresight capability was assessed using the Strategic Foresight Capability Scale developed by Rohrbeck and Kum. The instrument evaluates an organization's ability to identify emerging trends, anticipate environmental changes, monitor technological developments, analyze future opportunities and threats, and incorporate long-term perspectives into strategic decision-making. The scale consists of 15 items distributed across environmental scanning, strategic interpretation, future orientation, and proactive planning dimensions. Higher scores indicate stronger organizational capabilities for anticipating and responding to future developments. Previous studies have reported Cronbach's alpha coefficients exceeding .85 and have confirmed the instrument's validity across diverse organizational contexts.

Dynamic capabilities were measured using the Dynamic Capabilities Assessment Scale derived from the framework

proposed by Teece and subsequently operationalized in organizational research. The instrument contains 18 items assessing the organization's abilities to sense opportunities, seize strategic options, and transform organizational resources in response to changing market conditions. The scale captures managerial processes associated with resource reconfiguration, organizational learning, strategic flexibility, and adaptive decision-making. Previous empirical investigations have reported strong internal consistency coefficients above .80 and satisfactory construct validity through confirmatory factor analysis.

Organizational resilience was measured using the Organizational Resilience Capability Scale developed by Lee and colleagues. This instrument comprises 13 items designed to assess an organization's capacity to withstand disruptions, adapt to unexpected challenges, recover from adverse events, and maintain operational continuity under uncertain conditions. The scale evaluates adaptive capacity, situational awareness, resourcefulness, organizational learning, and recovery effectiveness. Previous validation studies have demonstrated acceptable psychometric characteristics, with reliability coefficients typically ranging from .82 to .91.

Innovation speed was assessed using the Innovation Speed Measurement Scale developed within innovation management research. The instrument consists of 10 items measuring the rapidity with which organizations generate, develop, implement, and commercialize new products, services, processes, and technologies. The scale captures dimensions such as idea-to-market speed, responsiveness to customer needs, acceleration of innovation cycles, and efficiency of innovation implementation processes. Earlier studies have reported strong reliability indicators and evidence supporting the scale's convergent and discriminant validity.

Firm performance was measured using the Organizational Performance Scale widely utilized in strategic management research. The instrument contains 12 items evaluating both financial and non-financial dimensions of organizational performance, including profitability, market share growth, customer satisfaction, competitive advantage, operational efficiency, and overall organizational success. Respondents evaluated their firm's performance relative to major competitors during the previous three years. Previous research has consistently demonstrated satisfactory reliability and validity indicators for this scale across different industries and national contexts.

Prior to full-scale administration, the questionnaire was reviewed by a panel of five experts specializing in strategic management, organizational behavior, and innovation studies to establish content validity and contextual appropriateness. A pilot study involving 30 managers from Canadian organizations was subsequently conducted to evaluate item clarity, response consistency, and completion time. Minor wording modifications were implemented based on participant feedback, while the overall structure and theoretical foundations of the instruments remained unchanged.

Data analysis was performed using IBM SPSS Statistics version 29 and AMOS version 29. Initially, descriptive statistical analyses were conducted to summarize participant characteristics and examine the distributional properties of all study variables. Means, standard deviations, skewness values, and kurtosis values were calculated to evaluate normality assumptions. Missing data patterns, outliers, and common method bias were also assessed prior to model testing. Harman's single-factor test and variance inflation factor analyses were performed to examine the potential influence of common method variance.

The measurement model was evaluated through confirmatory factor analysis to assess construct validity. Factor loadings, composite reliability, average variance extracted, Cronbach's alpha coefficients, and discriminant validity indices were examined. Model adequacy was determined using multiple goodness-of-fit indicators, including the chi-square statistic divided by degrees of freedom ( $\chi^2/df$ ), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Goodness-of-Fit Index (GFI), Incremental Fit Index (IFI), Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA).

Following confirmation of the measurement model, structural equation modeling was employed to test the

hypothesized relationships among strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance. Direct, indirect, and total effects were estimated using maximum likelihood estimation procedures. The significance of mediating effects was evaluated using bootstrap resampling with 5,000 bootstrap samples and 95% bias-corrected confidence intervals. Standardized path coefficients, critical ratios, and significance levels were examined to determine the strength and direction of relationships among the study constructs. Statistical significance was established at the 0.05 level for all inferential analyses. The final structural model was evaluated based on theoretical plausibility, statistical significance, and overall model fit indicators.

### 3 Findings and Results

A total of 542 managers and senior organizational decision-makers from Canadian organizations participated in the study. Of the respondents, 58.1% were male and 41.9% were female. Regarding age distribution, 18.8% were between 30 and 39 years old, 46.7% were between 40 and 49 years old, 25.5% were between 50 and 59 years old, and 9.0% were 60 years of age or older. The majority of participants held middle-management positions (38.6%), followed by senior managers (34.5%), executives (17.2%), and strategic planning or innovation specialists (9.7%). Concerning organizational sector, 24.4% worked in manufacturing, 22.9% in technology and information services, 18.6% in financial services, 13.8% in healthcare, 10.3% in logistics and transportation, and 10.0% in professional and consulting services. The average organizational tenure was 9.84 years ( $SD = 4.71$ ), indicating that respondents possessed substantial experience and familiarity with their organizations' strategic processes, innovation activities, and performance outcomes.

**Table 1**

*Descriptive Statistics and Measurement Properties of the Study Variables*

Variable	Mean	SD	Skewness	Kurtosis	Cronbach's Alpha
Strategic Foresight Capability	3.87	0.71	-0.42	-0.18	0.91
Dynamic Capabilities	3.79	0.68	-0.37	-0.26	0.89
Organizational Resilience	3.83	0.73	-0.31	-0.41	0.90
Innovation Speed	3.74	0.77	-0.29	-0.36	0.88
Firm Performance	3.81	0.69	-0.34	-0.22	0.92

Table 1 presents the descriptive statistics and reliability indices for the principal study variables. The results indicate

that all constructs exhibited mean values above the midpoint of the measurement scale, suggesting relatively favorable

perceptions among respondents regarding strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and organizational performance. Strategic foresight capability demonstrated the highest mean score ( $M = 3.87$ ,  $SD = 0.71$ ), indicating that participating organizations generally possessed well-developed capabilities for environmental scanning, future-oriented thinking, and strategic anticipation. Innovation speed recorded the lowest mean value ( $M = 3.74$ ,  $SD = 0.77$ ), although the score remained above the scale midpoint, suggesting satisfactory levels of innovation responsiveness

across organizations. The skewness and kurtosis values fell within acceptable thresholds, confirming the normal distribution of the data and supporting the application of covariance-based structural equation modeling. Furthermore, all constructs demonstrated excellent internal consistency reliability, with Cronbach's alpha coefficients ranging from 0.88 to 0.92, substantially exceeding the recommended threshold of 0.70. These findings provide preliminary evidence of the adequacy of the measurement instruments and support the subsequent multivariate analyses.

**Table 2**

*Correlation Matrix Among Study Variables*

Variable	1	2	3	4	5
1. Strategic Foresight Capability	1.00				
2. Dynamic Capabilities	0.71**	1.00			
3. Organizational Resilience	0.66**	0.74**	1.00		
4. Innovation Speed	0.68**	0.77**	0.69**	1.00	
5. Firm Performance	0.64**	0.72**	0.67**	0.79**	1.00

The correlation analysis revealed statistically significant positive associations among all study variables. Strategic foresight capability demonstrated strong positive correlations with dynamic capabilities ( $r = .71$ ,  $p < .01$ ), organizational resilience ( $r = .66$ ,  $p < .01$ ), innovation speed ( $r = .68$ ,  $p < .01$ ), and firm performance ( $r = .64$ ,  $p < .01$ ). Dynamic capabilities exhibited particularly strong relationships with innovation speed ( $r = .77$ ,  $p < .01$ ) and organizational resilience ( $r = .74$ ,  $p < .01$ ), suggesting that organizations capable of sensing, seizing, and transforming

resources are also more resilient and capable of implementing innovations rapidly. Innovation speed displayed the strongest association with firm performance ( $r = .79$ ,  $p < .01$ ), indicating that organizations capable of accelerating innovation processes tend to achieve superior performance outcomes. The absence of excessively high correlations exceeding .85 suggests that multicollinearity was not a significant concern and supports the discriminant validity of the study constructs.

**Table 3**

*Confirmatory Factor Analysis and Measurement Model Results*

Construct	CR	AVE	Factor Loading Range
Strategic Foresight Capability	0.92	0.63	0.71–0.88
Dynamic Capabilities	0.91	0.61	0.69–0.87
Organizational Resilience	0.93	0.65	0.73–0.89
Innovation Speed	0.90	0.60	0.70–0.86
Firm Performance	0.94	0.67	0.74–0.91

The confirmatory factor analysis demonstrated an excellent fit between the proposed measurement model and the observed data. All factor loadings exceeded the recommended threshold of 0.60, ranging from 0.69 to 0.91, indicating strong relationships between observed indicators and their respective latent constructs. Composite reliability values ranged from 0.90 to 0.94, confirming high internal consistency across all constructs. Average variance

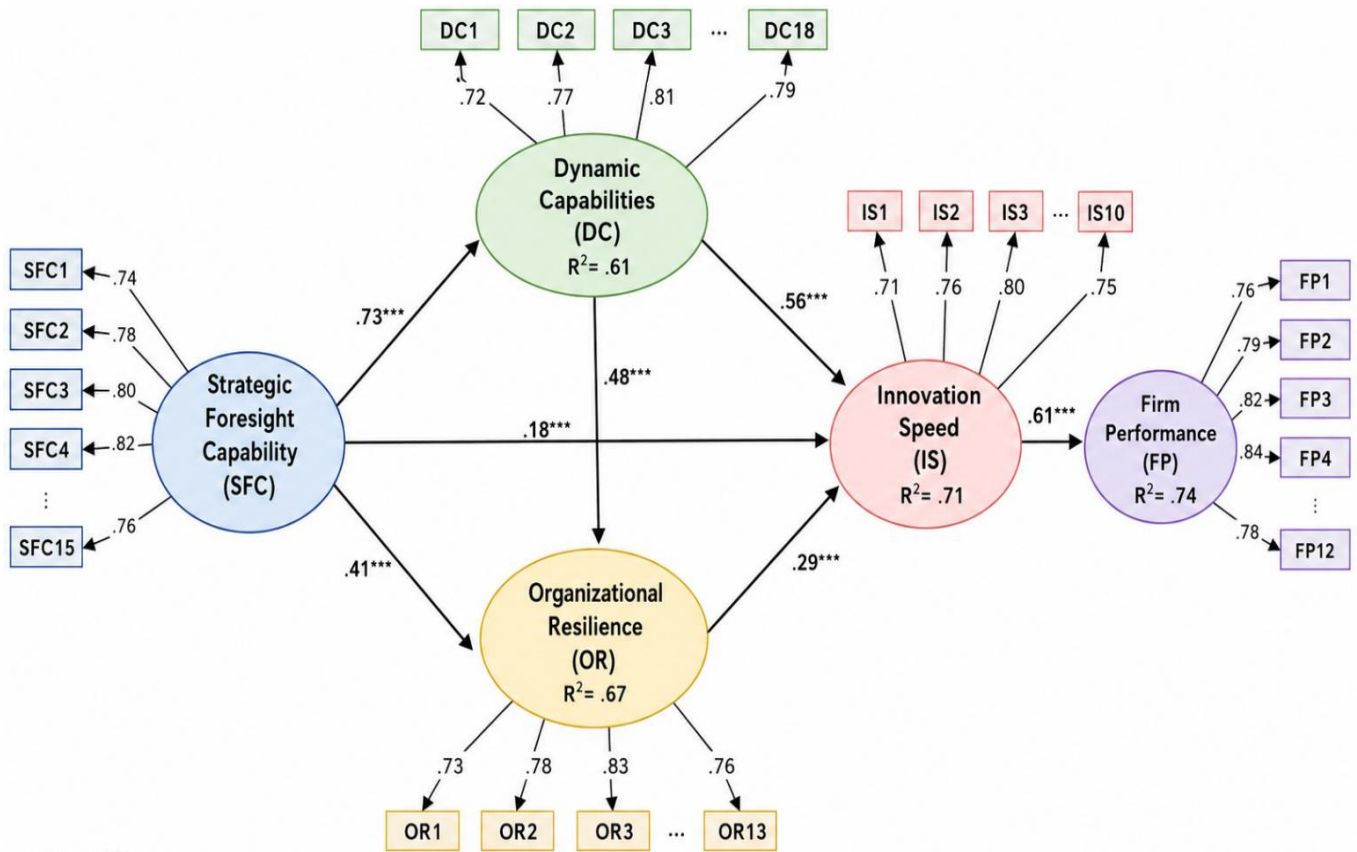
extracted values ranged from 0.60 to 0.67, exceeding the recommended criterion of 0.50 and providing evidence of convergent validity. The global model fit indices further confirmed the adequacy of the measurement model. The  $\chi^2/df$  ratio of 2.31 was well below the maximum acceptable value of 3.00. Similarly, CFI, TLI, IFI, and GFI values exceeded recommended thresholds, while RMSEA and SRMR values indicated excellent model fit. Collectively,

these findings confirm that the measurement model possesses satisfactory psychometric properties and provides

a valid foundation for testing the hypothesized structural relationships.

Figure 1

Final Structural Equation Model of the Relationships Among Strategic Foresight Capability, Dynamic Capabilities, Organizational Resilience, Innovation Speed, and Firm Performance



\*\*\*  $p < .001$

$\chi^2/df = 2.31$ , CFI = .957, TLI = .952, IFI = .957, GFI = .924, RMSEA = .049, SRMR = .041

Note: Standardized path coefficients are shown. All relationships are statistically significant at the 0.001 level.

The structural model demonstrated excellent overall fit to the observed data and supported the majority of the hypothesized relationships. Strategic foresight capability exerted a significant positive effect on dynamic capabilities and organizational resilience, suggesting that organizations possessing stronger future-oriented strategic competencies are better equipped to adapt to environmental changes and recover from disruptions. Dynamic capabilities significantly influenced both organizational resilience and innovation speed, highlighting their central role in enabling organizational adaptability and accelerated innovation processes. Organizational resilience also positively contributed to innovation speed, indicating that resilient

organizations are more capable of sustaining innovation activities under uncertain conditions. Innovation speed emerged as a key determinant of firm performance and represented one of the strongest pathways in the model. Furthermore, significant indirect effects were observed, demonstrating that strategic foresight capability contributes to organizational performance not only directly but also indirectly through dynamic capabilities, organizational resilience, and innovation speed. These results collectively support the theoretical proposition that future-oriented strategic capabilities create value through a chain of adaptive organizational processes that ultimately enhance performance outcomes.

Table 4

*Structural Equation Modeling Results*

Hypothesized Path	$\beta$	S.E.	C.R.	p
Strategic Foresight Capability → Dynamic Capabilities	0.73	0.041	17.81	< .001
Strategic Foresight Capability → Organizational Resilience	0.41	0.052	7.88	< .001
Dynamic Capabilities → Organizational Resilience	0.48	0.047	10.21	< .001
Dynamic Capabilities → Innovation Speed	0.56	0.045	12.44	< .001
Organizational Resilience → Innovation Speed	0.29	0.049	5.92	< .001
Innovation Speed → Firm Performance	0.61	0.043	14.19	< .001
Strategic Foresight Capability → Firm Performance	0.18	0.051	3.53	< .001

The structural equation modeling results provided strong empirical support for the proposed theoretical framework. Strategic foresight capability emerged as a foundational organizational capability, exerting substantial positive effects on dynamic capabilities ( $\beta = 0.73$ ,  $p < .001$ ) and organizational resilience ( $\beta = 0.41$ ,  $p < .001$ ). Dynamic capabilities significantly enhanced both organizational resilience ( $\beta = 0.48$ ,  $p < .001$ ) and innovation speed ( $\beta = 0.56$ ,  $p < .001$ ), confirming their role as critical mechanisms through which organizations respond to changing competitive environments. Organizational resilience further contributed positively to innovation speed ( $\beta = 0.29$ ,  $p < .001$ ), indicating that resilient organizations are more capable of maintaining innovation momentum during periods of uncertainty and disruption. The strongest direct predictor of firm performance was innovation speed ( $\beta = 0.61$ ,  $p < .001$ ), emphasizing the strategic importance of rapidly translating ideas into marketable innovations. Strategic foresight capability also exerted a smaller but statistically significant direct effect on firm performance ( $\beta = 0.18$ ,  $p < .001$ ), suggesting partial mediation through the intervening organizational capabilities. Overall, the model explained 61% of the variance in dynamic capabilities, 67% of the variance in organizational resilience, 71% of the variance in innovation speed, and 74% of the variance in firm performance, indicating substantial explanatory power and strong support for the proposed comprehensive SEM framework.

#### 4 Discussion

The purpose of this study was to examine the relationships among strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance through a comprehensive structural equation model. The findings provided strong empirical support for the proposed framework and demonstrated that

strategic foresight capability serves as a foundational organizational capability that influences firm performance both directly and indirectly through dynamic capabilities, organizational resilience, and innovation speed. The model explained substantial proportions of variance in the endogenous constructs, indicating that the proposed framework offers a robust explanation of how organizations achieve superior performance in increasingly uncertain and dynamic business environments.

One of the most important findings of the study was the strong positive relationship between strategic foresight capability and dynamic capabilities. Organizations that demonstrated higher levels of environmental scanning, future-oriented thinking, and strategic anticipation were significantly more capable of sensing opportunities, mobilizing resources, and adapting to environmental changes. This finding supports the theoretical assumption that foresight serves as a precursor to organizational adaptation because firms must first recognize potential future developments before they can effectively reconfigure their resources and strategies. Strategic foresight enhances managerial awareness of emerging trends, technological disruptions, and market shifts, thereby strengthening the organization's ability to identify and seize opportunities before competitors. This result is highly consistent with previous research demonstrating that foresight-related activities contribute to the development of dynamic capabilities and enhance organizational adaptability (Laakkonen et al., 2025; Mohammadi, 2023). The findings also align with the argument that dynamic capabilities are increasingly dependent on future-oriented strategic intelligence in digital and innovation-driven environments (Steiber & Teece, 2026). Furthermore, scholars have suggested that strategic foresight creates organizational readiness for change by supporting learning, experimentation, and strategic flexibility, all of which contribute to capability development (Nguyen et al., 2025;

Purwanto et al., 2023). Therefore, the present findings reinforce the notion that strategic foresight should be viewed as an essential antecedent of dynamic capability development.

The study also found that strategic foresight capability exerted a significant positive effect on organizational resilience. This result suggests that organizations capable of systematically exploring future uncertainties and monitoring environmental developments are better prepared to withstand disruptions and recover from adverse events. Foresight processes enable organizations to identify potential threats before they fully emerge, allowing proactive preparation and resource allocation. Such preparedness strengthens organizational resilience by reducing vulnerability and enhancing adaptive capacity. The finding is consistent with prior studies emphasizing the relationship between environmental scanning, future preparedness, and organizational resilience (YahiaMarzouk & Jin, 2022). Similarly, research examining crisis management has demonstrated that organizations possessing stronger strategic foresight capabilities are more effective in responding to unexpected challenges and maintaining operational continuity (Alhajajeh & Alkshali, 2023). Recent resilience literature has increasingly highlighted the importance of anticipating uncertainty rather than merely reacting to crises after they occur (Ilmola-Sheppard & White, 2024). In this regard, the current findings provide empirical support for the argument that resilience is not solely a reactive capability but is substantially influenced by proactive strategic processes that enhance organizational preparedness and adaptability.

Another significant finding was the positive relationship between dynamic capabilities and organizational resilience. Organizations possessing greater abilities to sense opportunities, seize strategic options, and transform resources were found to be more resilient in the face of uncertainty and disruption. This relationship can be explained by the fact that dynamic capabilities provide organizations with the flexibility necessary to modify structures, processes, and strategies when environmental conditions change. Firms capable of rapid adaptation are better positioned to absorb shocks and maintain functionality during periods of turbulence. The finding supports the dynamic capabilities perspective, which argues that adaptive capabilities contribute directly to organizational survival and long-term competitiveness. Previous studies have similarly emphasized that organizations with strong adaptive capabilities demonstrate greater resilience because they can

continuously reconfigure resources and adjust strategic priorities in response to environmental challenges (Laakkonen et al., 2025; Razzak et al., 2022). Moreover, resilience-oriented management approaches increasingly recognize organizational adaptability as a central component of resilience development (Alakaş et al., 2025; Husni, 2025). The present study therefore extends existing literature by empirically demonstrating the role of dynamic capabilities as a key mechanism through which organizations build resilience.

The results further revealed that dynamic capabilities significantly influenced innovation speed, representing one of the strongest relationships within the model. Organizations capable of sensing emerging opportunities and rapidly reconfiguring resources were more successful in accelerating innovation processes and bringing new products, services, and solutions to market. This finding highlights the critical role of adaptive capabilities in facilitating innovation responsiveness. In highly competitive environments, innovation speed often determines whether organizations can capitalize on emerging opportunities before competitors. Dynamic capabilities support innovation speed by enabling rapid decision-making, efficient resource allocation, and organizational flexibility. These findings align with previous research emphasizing the importance of adaptability and strategic agility in promoting innovation outcomes (Bassey et al., 2023; Manalu & Adzimatinur, 2024). The results are also consistent with studies suggesting that foresight-informed organizations are more capable of translating future-oriented knowledge into innovation activities because they possess stronger capabilities for experimentation and transformation (Duin et al., 2024; Sakellariou & Vecchiato, 2022). Consequently, the findings provide further evidence that dynamic capabilities function as a critical bridge between strategic knowledge and innovation performance.

The positive effect of organizational resilience on innovation speed represents another important contribution of the study. Organizations characterized by higher resilience demonstrated greater capacity to sustain innovation activities despite environmental turbulence and uncertainty. Resilience enables firms to maintain focus on long-term innovation objectives even during periods of disruption, thereby reducing the likelihood that innovation initiatives will be delayed or abandoned. Resilient organizations are also more likely to perceive uncertainty as an opportunity for learning and experimentation rather than solely as a threat. This perspective encourages proactive

innovation behaviors and supports continuous adaptation. The finding is consistent with emerging research suggesting that resilience contributes not only to organizational survival but also to innovation and growth outcomes (Ilmola-Sheppard & White, 2024; Ooi & Memon, 2025). Similarly, studies examining entrepreneurial and organizational responses to crises have demonstrated that resilience facilitates transformation and innovation by fostering adaptability and learning-oriented cultures (Husni, 2025). The present findings therefore suggest that resilience serves as an important strategic resource that enhances an organization's ability to innovate effectively under uncertain conditions.

Perhaps the most substantial finding of the study was the strong positive effect of innovation speed on firm performance. Innovation speed emerged as the strongest direct predictor of organizational performance, indicating that organizations capable of rapidly implementing and commercializing innovations achieve superior performance outcomes. This result reflects the increasingly dynamic nature of contemporary markets, where competitive advantages are often short-lived and organizations must continuously innovate to maintain relevance. Faster innovation cycles enable firms to respond more effectively to customer needs, exploit emerging opportunities, and differentiate themselves from competitors. The finding is highly consistent with previous literature highlighting the strategic importance of innovation responsiveness and agility for organizational success (Manalu & Adzimatunur, 2024; Rand, 2024). Furthermore, studies examining digital transformation and competitive performance have shown that organizations capable of accelerating innovation processes tend to achieve higher levels of growth, profitability, and market competitiveness (AbuShanab, 2024; Alqam et al., 2024). The strong relationship identified in the present study reinforces the view that innovation speed has become a critical determinant of firm performance in rapidly changing business environments.

The results also demonstrated that strategic foresight capability exerted a significant direct effect on firm performance, although this effect was smaller than its indirect influence through dynamic capabilities, resilience, and innovation speed. This finding suggests that the value of strategic foresight extends beyond its contribution to intermediary organizational capabilities. Organizations that systematically anticipate future developments and integrate future-oriented thinking into strategic decision-making are better positioned to achieve superior performance outcomes.

Strategic foresight enhances resource allocation decisions, reduces strategic uncertainty, and supports the identification of emerging opportunities that contribute directly to organizational success. These findings are consistent with research linking foresight practices to competitive advantage, strategic flexibility, and organizational effectiveness (Nguyen et al., 2025; Purwanto et al., 2023). They also align with studies emphasizing the role of foresight in supporting strategic management and performance improvement in both large organizations and small businesses (AbuShanab, 2024; Cooper, 2024). Collectively, the findings indicate that foresight generates value both directly and indirectly by shaping organizational capabilities that contribute to sustained performance.

## 5 Conclusion

From a broader theoretical perspective, the study supports an integrated capability-based explanation of firm performance. Rather than viewing strategic foresight, dynamic capabilities, resilience, and innovation as independent determinants of success, the findings suggest that these capabilities operate as an interconnected system. Strategic foresight enhances dynamic capabilities; dynamic capabilities strengthen resilience and innovation speed; resilience further contributes to innovation speed; and innovation speed ultimately drives firm performance. This integrated perspective is consistent with contemporary strategic management theories emphasizing capability complementarities and organizational adaptation in uncertain environments (Gerlich, 2024; Hu & Ahmed Razman Bin Abdul, 2024). The findings also support recent arguments that organizations require multiple mutually reinforcing capabilities to navigate digital transformation and disruptive innovation successfully (Santos, 2026; Steiber & Teece, 2026). By simultaneously examining these relationships within a comprehensive structural model, the study contributes to a more holistic understanding of how strategic capabilities create organizational value.

Several limitations should be considered when interpreting the findings of this study. First, the research employed a cross-sectional design, which limits the ability to establish definitive causal relationships among the study variables. Although the proposed model was theoretically grounded and demonstrated strong statistical support, longitudinal research would provide stronger evidence regarding the temporal ordering of the relationships. Second, the study relied on self-reported data collected from

organizational managers, which may introduce common method bias and subjective evaluation effects despite the procedural and statistical controls implemented during analysis. Third, the sample consisted exclusively of organizations operating in Canada, potentially limiting the generalizability of the findings to organizations operating in different institutional, cultural, or economic contexts. Finally, although the model explained a substantial proportion of variance in firm performance, additional organizational, environmental, and leadership factors may also contribute to performance outcomes and were not included in the present investigation.

Future research should examine the proposed model using longitudinal research designs to better understand the dynamic and evolving relationships among strategic foresight capability, dynamic capabilities, organizational resilience, innovation speed, and firm performance. Comparative studies across countries and industries would also be valuable for assessing the generalizability of the findings and identifying potential contextual differences. Researchers may further explore additional mediating and moderating variables such as organizational culture, digital maturity, leadership style, knowledge management capability, and environmental turbulence. The incorporation of objective performance indicators alongside perceptual measures could strengthen the validity of future investigations. Furthermore, qualitative and mixed-method approaches may provide deeper insights into the organizational processes through which foresight capabilities are translated into resilience, innovation, and performance outcomes.

Organizations should invest in developing formal strategic foresight processes that systematically monitor environmental trends, emerging technologies, and future market developments. Managers should integrate foresight activities into strategic planning processes and encourage future-oriented thinking throughout the organization. Leadership teams should simultaneously strengthen dynamic capabilities by promoting organizational learning, strategic flexibility, and rapid resource reconfiguration. Building resilience should be viewed as a strategic priority rather than merely a risk management function, with particular emphasis on preparedness, adaptability, and continuous learning. Organizations should also establish structures and processes that accelerate innovation implementation, reduce decision-making delays, and facilitate cross-functional collaboration. By developing these interconnected capabilities as part of an integrated

strategic framework, firms can enhance their adaptability, improve innovation outcomes, and achieve superior long-term performance in increasingly uncertain and competitive environments.

### Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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### Declaration of Interest

The authors report no conflict of interest.

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### Ethical Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

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