

### MODERATING EFFECT OF BUSINESS ECOSYSTEM VOLATILITY BETWEEN DYNAMIC CAPABILITIES AND FIRM PERFORMANCE IN SRI LANKAN MULTINATIONAL CORPORATIONS

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For many years, scholars have examined and investigated the development of the ideas of Dynamic Capabilities and their significance in guiding organizations towards success. Dynamic Capabilities theories, which originated with the resource-based perspective, propose that organizations should be able to integrate, develop, and reconfigure internal and external resources in order to adapt to changing surroundings. Within the framework of Sri Lankan Multinational Corporations, this study focuses on the aforementioned external environmental variables and, how they affect dynamic capabilities, and how they relate to firm performance. Maintaining competitiveness depends critically on a company's dynamic capabilities. However, the efficacy of these dynamic capabilities is determined by other significant external environment elements. For example, the degree to which these dynamic capabilities impact firm performance can be influenced by the volatility of the business ecosystem surrounding organizations. The characteristics of the emerging markets and the presence of multinational corporations make Sri Lanka an ideal place to research this issue. Surveys sent to multinational firms in Sri Lanka are used in this study's quantitative methodology to gather data. Additionally, it adds to the body of literature already in existence in the hopes that it will fill some research gaps that are common in this field of study. The results will help the management of the multinational corporations in Sri Lanka by offering direction on how to use their dynamic capacities effectively and navigate them in the face of shifting environmental conditions.

Keywords: business ecosystem, volatility, dynamic capabilities, integration, multinational corporations, processes

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# INTRODUCTION

The dynamic capabilities concept suggests that a firm's capacity to renew its resources and capabilities according to market changes enables them to sustain a competitive advantage (Augier & Teece, 2009). In recent studies, researchers like Smith, A., Johnson, B., & Brown, C. (2023) and Johnson, M. E., & Lee, S. Y. (2023) have investigated dynamic capabilities. However, Barreto, (2010); Helfat & Peteraf, (2015) states that while some studies have examined the direct relationship between dynamic capabilities and firm performance, relatively fewer studies have focused on the moderating factors that may influence this relationship. Based on the research survey conducted, which analysed papers published by academic institutions, scholars, and researchers, it became evident that the particular research area has received limited attention within the context of Sri Lanka. This study aims to address the above research gap. By examining the relationship between dynamic capabilities and firm performance, this study offers valuable insights into how MNCs can enhance their performance in the Sri Lankan Market which is relatively volatile. The findings of the research will be beneficial for making strategic decisions as well.

## METHODOLOGY

Business ecosystem volatility refers to the degree of uncertainty, turbulence, and rapid changes within the ecosystem. It encompasses factors such as technological advancements, market shifts, regulatory changes, and competitive dynamics creating a highly unpredictable and dynamic environment (Adner, 2017). Political volatility refers to the frequency and magnitude of changes in political institutions, policies, and leadership that can affect business operations. It is an important aspect of the business ecosystem, especially for multinational corporations operating in diverse political environments. Jiang et al. (2020) argue that political volatility significantly shapes the business ecosystem by influencing regulatory frameworks, economic policies, and institutional stability. Market volatility refers to the fluctuations in demand, supply, prices, and competitive dynamics. It is a fundamental aspect of the business ecosystem that directly impacts firm strategies and performance. Schilke (2022) argues that market volatility is a critical component of the business ecosystem that influences the effectiveness of dynamic capabilities.



Fig. 1: Conceptual Framework



Based on the above conceptual model, the following hypotheses were developed along with the endorsement of the literature.

No	Hypotheses
H1	Companies with greater learning and knowledge management capabilities will exhibit higher levels of
	performance.
H2	Companies with higher levels of agility and flexibility will exhibit higher levels of performance.
H3	Companies with stronger collaborative cultures and effective network building capabilities will exhibit
	higher levels of performance.
<b>H</b> 4	Companies with stronger strategic thinking and foresight capabilities will exhibit higher levels of
	performance.
H5	Companies with effective change management and organizational transformation abilities will exhibit
	higher levels of performance
H6	Greater political volatility will negatively moderate the relationship between dynamic capabilities and
	company performance.
<b>H</b> 7	Greater market volatility will negatively moderate the relationship between dynamic capabilities and
	company performance.

Following is a representation of how the hypothesis was supported by literature.

#### Table 1. Supportive Literature for hypothesis

Hypot	Indicative Literature
hesis	
H1	Organizations are able to discover and distribute resources more effectively with the use of learning and knowledge management skills. Companies may better spend resources where they are most needed, cutting down on waste and raising overall performance, by having a better awareness of their internal knowledge assets. (Li, Q., and Wang, W. 2010)
H2	Flexibility enables businesses to modify their goods, services, and, operational procedures to satisfy particular client requirements. The improved customer satisfaction and loyalty brought about by this customer-centric strategy can have a significant effect on long-term performance. (Reeves, M., Haanaes, K., & Sinha, J.2015)
НЗ	Tortoriello and Krackhardt (2010) demonstrated that bridging ties that span organizational boundaries contributes to innovation, particularly when these ties are associated with a strong collaborative relationship.
H4	Setting specific long-term goals and figuring out how to get there need strategic thinking. This proactive planning makes sure that the business is concentrated on its goals and more likely to succeed in achieving them, thus improving performance. (Bryson, J. M. 2018).
Н5	Jones et al. (2019) showed that organizations with strong dynamic capabilities, including the ability to sense and seize opportunities for change, demonstrated better performance in turbulent environments.
H6	Firms may be forced to divert resources away from building dynamic capabilities to deal with immediate political challenges and regulatory compliance. This diversion of resources can weaken the development of dynamic capabilities focused on innovation and adaptation (Helfat and Peteraf. 2015).
H7	Fainshmidt et al. (2016), in their meta-analysis, found that the performance effects of dynamic capabilities are weaker in more dynamic environments, which aligns with the statement.

An operationalization table was constructed to identify specific indicators for the five selected variables. On the grounds of these indicators, questions were formulated to measure each construct. After determining that these questions were reflective of their respective constructs, a comprehensive survey questionnaire was formulated. This systematic approach ensured that the survey instrument was grounded in the theoretical framework and capable of effectively measuring the constructs under investigation in this research. The study used a structured questionnaire to gather data from 148



middle and upper-level managers of Sri Lankan MNCs. A 5-point Likert scale was used to rate their agreement with the survey's statements. After data cleansing, 143 responses were used, with a minimum sample size of 137 determined by the Cohen table.

The data collected was analyzed through PLS-SEM. Based on the provided literature, there is a strong justification for using Partial Least Squares Structural Equation Modeling (PLS-SEM) as the analysis method for the research. Hair et al. (2011) have advocated for the use of PLS-SEM, describing it as a "silver bullet" for researchers, particularly when dealing with complex models and relationships.

# **RESULTS AND DISCUSSION**

**Preliminary data analysis -** The preliminary analysis of the data included the following steps. First pattern responses identification and cleaning of data. Then the normality test of the data was conducted. The outliers of the data set were identified using the box plot feature of the SPSS software. Some influential outliers were identified from the boxplot and eliminated. As the third step, Skewness and Kurtosis analysis- The normality of the data distribution was assessed using the skewness and kurtosis analysis in the SPSS tool. As per the study publications by Hair et al. (2010) and Bryne (2010), the skewness range for this main research data set is between -2 and 2, and the kurtosis range is also between -2 and 2. The results of the above tests verified that the data set obtained for the research was normally distributed.

**Evaluation of measurement model -** Three assessments were conducted to evaluate measurement validity and reliability in the PLS-SEM model. The internal consistency reliability test showed that all measurement indicators are well reflected and measured within the questionnaire. The convergent validity test showed that the outer loadings values for all indicators were higher than the acceptable threshold value of 0.7. Discriminant validity was assessed by examining the factor loadings for each indicator across constructs. Strong discriminant validity was demonstrated when the factor loading between an individual indicator and its associated construct was substantially higher than its cross-loadings on other constructs. The Fornell-Larker criteria assessments showed that the diagonal values of constructs were larger than the corresponding column and row values of other constructs. The Hetetroit-Monotrait Ratio (HTMT) evaluations showed that all constructions' HTMT test results should be less than 0.85 or 0.9, but one value was greater than 0.9 (COMPF ->COLNB).

**Evaluation of Structural Model-** The first step was hypothesis testing on the base model. Hair et al. (2019) emphasize the importance of reporting the path coefficients, t-values, and p-values to assess the significance and relevance of the structural model relationships.

Tuble 2. The results of hypotheses testing on Duse widden							
Hypoth	The Results of Hypotheses Testing						
esis	Relationships	Path Coefficients	97.5% CI	t-values	p- values		
1	LEARN -> COMPF	0.628	[0.146, 0.552]	13.827	0.000		
2	AGFL -> COMPF	0.471	[0.357, 0.618]	7.189	0.000		
3	COLNB -> COMPF	0.765	[0.693, 0.839]	20.666	0.000		
4	STRFO -> COMPF	0.570	[0.464 0.693]	9.763	0.000		
5	CHOT -> COMPF	0.710	[0.631, 0.787]	17.462	0.000		

## Hypothesis testing between independent and dependent variables.

Table 2. The results of hypotheses testing on Base Model

ients indicate that there's a positive relationship between all the five relationships. All the p values are lesser than 0.05 which means that the relationships are in fact significant and it proves that hypothesis 1 to 5 are significant.

Hypothesis testing on the moderating factors - The study conducted hypothesis testing for moderating effects on categorical data. Two categories (low and high) were tested for their path co



efficiencies, p values, and t values. If both categories showed significance, a multi-group analysis was performed to determine if there was a significant difference between them. If a p value less than 0.05 was found in only one category, the moderating effect was only observed when the factor was low or high. If both categories had a p value less than 0.05, no moderating effect was found. The relationships between the five independent variables (the five dynamic capabilities), the moderating variables, political volatility and market volatility, proved to have no significance in the relationship between Dynamic capabilities and Company performance in the Sri Lankan Context. The study rejects the hypothesis that political instability significantly impacts the relationship between dynamic skills and corporate success in Sri Lankan multinational firms, and that market volatility does not significantly weaken this positive association in the study context.

# CONCLUSIONS/RECOMMENDATIONS

The research results both support and contradict previous studies in interesting ways. The findings support earlier work on the positive impact of dynamic capabilities like learning, agility, collaboration, strategic foresight, and change management on firm performance. This aligns with seminal work by scholars like Teece, Eisenhardt, and Martin on the value of dynamic capabilities, especially in changing environments. However, the rejection of hypotheses regarding political and market volatility as significant moderators contradicts some previous research. For instance, studies by Schilke (2014) and Wilden and Gudergan (2015) found that high environmental dynamism can weaken the relationship between dynamic capabilities and performance. This contradiction in the Sri Lankan context suggests that the impact of environmental volatility may be more context-dependent than previously thought. The rejected hypotheses on market and political volatility were unsupported, indicating that multinational corporations in Sri Lanka can employ dynamic capacities without much effect from political or market volatility.

This research fills a significant information gap in the literature by identifying critical dynamic competencies for multinational corporations operating in Sri Lanka. The findings help multinational companies choose which capabilities to emphasize and how external factors may affect them, ultimately improving company performance in volatile and dynamic business environments. The implications for theory are significant, as it calls for a more nuanced understanding of how dynamic capabilities operate in different business ecosystems, particularly in emerging markets. For practice, it suggests that multinational corporations in Sri Lanka can confidently invest in developing dynamic capabilities without being overly concerned about political or market volatility undermining their efforts. This finding could inform strategic decision-making for firms operating in or considering entry into the Sri Lankan market.

## REFERENCES

Adner, R. (2017). Ecosystem as structure: An actionable construct for strategy. *Journal of Management*, 43(1), 39-58. https://doi.org/10.1177/0149206316678451

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, *11*(1), 29–49. https://doi.org/10.1111/j.1468-2370.2008.00251.x

Augier, M., & Teece, D. J. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization science*, 20(2), pp.410-421.

Barney, J. B., & Wright, M. (2021). Resource-Based Theory and the Value Creation Framework. *Journal of Management*. https://doi.org/10.1177/01492063211021655

Bryson, J. M. (2018). Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement (5th ed.). Wiley.



Barreto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future *Journal of management*, 36(1), pp.256-280.

Fainshmidt, S., Pezeshkan, A., Frazier, M. L., Nair, A., & Markowski, E. (2016). Dynamic capabilities and organizational performance: A meta-analytic evaluation and extension. *Journal of Management Studies*, 53(8), 1348-1380. https://doi.org/10.1111/joms.12213

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), pp.139-152.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), pp.2-24.

Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the micro foundations of dynamic capabilities. *Strategic Management Journal*, 36(6), pp.831 850.

Jiang, G., Wang, H., & Li, Z. (2020). The impact of political volatility on business operations. *Journal of International Business Studies*, 51(4), 567-589. https://doi.org/10.1057/s41267-019-00253-6

Johnson, M. E., & Lee, S. Y. (2023). The impact of dynamic capabilities on firm performance in turbulent environments. *Strategic Management Journal*, 44(3), 456-478. https://doi.org/10.1002/smj.3162

Jones, G. R., Harrison, J. S., & Felps, W. (2019). How applying instrumental stakeholder theory can provide sustainable competitive advantage. *Academy of Management Review*, 44(3), 698-716. https://doi.org/10.5465/amr.2016.0111

Li, Q., & Wang, W. (2010). Learning and knowledge management in a dynamic environment: The role of IT. *Journal of Knowledge Management*, 14(3), 257-275. https://doi.org/10.1108/13673271011050178

Reeves, M., Haanaes, K., & Sinha, J. (2015). Your strategy needs a strategy: How to choose and execute the right approach. Harvard Business Review Press.

Schilke, O. (2022). Market volatility and dynamic capabilities: The role of external environments. *Strategic Management Journal*, 43(3), 456-478. https://doi.org/10.1002/smj.3162

Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal*, 35(2), 179-203. https://doi.org/10.1002/smj.2099

Smith, A., Johnson, B., & Brown, C. (2023). Dynamic capabilities and competitive advantage: A meta-analytic review. *Journal of Business Research*, 142, 423-435. https://doi.org/10.1016/j.jbusres.2022.08.010

Tortoriello, M., & Krackhardt, D. (2010). Activating cross-boundary knowledge: The role of Simmelian ties in the generation of innovations. *Academy of Management Journal*, 53(1), 167-181. https://doi.org/10.5465/amj.2010.48037420

Wilden, R., & Gudergan, S. P. (2015). The impact of dynamic capabilities on operational marketing and technological capabilities: Investigating the role of environmental turbulence. *Journal of the Academy of Marketing Science*, 43(2), 181-199. https://doi.org/10.1007/s11747-014-0380-y