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Subsidiary Activities: Parent Company and Local Predictors of Business Resilience

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ABSTRACT

Objective – Resilience is one of the most relevant aspects of business today. Taking action for resilience requires new ideas that embrace uncertainty and consider adaptations for absorbing environmental pressures and responding to unidentified risks. The present study empirically explores the efforts of foreign subsidiaries in the United States.
Methodology – The analysis focuses on firms' activities across states. Parent company scale and performance, local market size, labor availability, and presence of other foreign firms are investigated in their power to discriminate between resilience activities and non-resilience actions.
Findings – The results show the relative significance of overall parent performance in determining a subsidiary's resilience at a particular subnational location.
Novelty – This study's focus on resilience activities and their determinants are unique. Original outcomes guide local actions for increasing business agility and inform multinational companies' executives about the importance of generating adequate business performance in preparation for disruption and supporting affiliates' resilience at their localities.
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1. Introduction

This study aims to evaluate business resilience activities in contrast to other business activities and to identify factors that stimulate such actions. The examination separates business resilience activities from other activities based on their distinct delivery of outcomes generating the hallmark characteristics of redundancy, diversity, adaptability, and embeddedness. All resilience activities are strategic and aim to position the organization to withstand interruptions in operations and adverse events affecting the overall perpetuation of business. As strategies, resilience-oriented activities include new rationalizations of how resources are allocated, which business units are supported, and actions to reshape the external environment or reimagine business ecosystems. While such a nomenclature of resilience activities has been provided in the literature and is used in this study, few attempts have been made to recognize what determines an organization to pursue them.

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Disruption and uncertainty have been generally accepted as motivators of resilience actions. However, the specifics of an organization's situation related to its actual environment where it operates and its status of being part of a larger organization have not been explored about resilience. The present study strives to view resilience activities and their determinants comprehensively. The work answers two previously unanswered questions about business activity. First, the question of what local factors affect the proliferation of resilience has not been addressed in sufficient detail by researchers and practitioners. While there is a general understanding that companies in specific locations may have access to more resources or capabilities to pursue resilience, no study presents a deep understanding of what local characteristics present such opportunities for organizations. Second, the question of what firm factors influence the choice or ability to pursue business resilience is important for experts crafting the next iteration of business models and strategy. Not only might the local business environment provide the context for taking action towards resilience, but the company-specific environment could also offer the right levers to develop resilience actively.

The analysis presented in this paper is motivated by a need to understand business resilience as company actions. The purpose is to consider what companies and their leaders have done and the directions they took during a disruption to extrapolate what might determine resilience activities in general. Looking at specific actions and determining local and company-specific factors is valuable. The recent disruption caused by the COVID-19 pandemic has opened the opportunity to evaluate disruption effects akin to an experiment in which the strategist can observe directly how organizations are affected. Taking stock of activities in disruption times gives a view of what shapes business action when risk and uncertainty increase.

Resilience is one of the most important topics in business. Creating business models and actions resistant to external shocks has been gaining even more traction as the world confronts the COVID-19 pandemic and its ensuing effects on supply and economic systems. As a result, resilience prompts many of an organization's actions. Evaluating such activities and the reasons behind them motivates the present investigation. Two issues, in particular, gave the impetus for the analysis: the pandemic and its role in generating disruptions in the business world and the current challenges associated with globalization, pressuring companies to rethink where they operate globally.

Disruptions characterize the business world today. For instance, the 2020 "great lockdown" related to the COVID-19 pandemic has presented organizations and policymakers with an unprecedented challenge. According to analysts (Van Assche & Lundan, 2020), the policy response to the health crisis has been "remarkable in its suddenness, magnitude, and synchronicity across countries." Governments have taken steps to cope with the economic challenges resulting from containment policies by adopting a mix of fiscal, monetary, and financial policies. As always, business leaders have difficulty responding to new threats and disruptions.

Existing analyses provide insights into effective decisions executives can make in uncertain times. But not many assessments look to distinguish the actions resulting from decisions and the specific circumstances that separate the resilience-oriented activities from the rest. The present study seeks to provide these kinds of understandings. A vital contribution of the undertaking is to show that some factors, more than others provide the right conditions for taking resilience action. Today, health risks and social unrest raise new questions about globalization and business resilience, with implications on global, national and subnational policy and business decisions. With a focus on the subnational level, the present work furthers the knowledge that policymakers can use to make optimal decisions about setting their locations as hotspots for business resilience. This area has previously been investigated from the perspective of local economic, market, and infrastructural factors that provide a business climate conducive to growth and profitability. Investigations on how local factors compare to other elements in their influence on business resilience actions are lacking. The present study fills this gap by considering location-specific and firm circumstances determinants of resilience activities.

Analysts recognize globalization as an avenue for development and progress and acknowledge the efficiencies of a networked world economy. Conversely, events in the past decade and a half, culminating with the COVID-19 pandemic, highlight globalization's challenges, such as economic value displacement, increasing inequality, unwanted immigration, and spreading disease. The drive for efficiency has led to a concentration of production, knowledge, and innovation in limited geographic areas (Kobrin, 2020). Also, the focus on efficiency resulted in more complex global supply chains. These two aspects lead to a situation where global events such as a pandemic or political unrest may lead to significant disruptions in production and severe supply shortages. According to McKinsey (Lund et al., 2020) (Hunt, V., Sneader, K., & Sternfels, 2020), "the previous era of globalization created intricately interconnected supply chains, data flows, financial flows, people flows, and idea flows—all of which offer more "surface area" for risk to penetrate." The new global interconnectedness reality means that places, more so than the flows of international trade and direct investments, are important considerations for business activities and performance. These aspects are particularly relevant to the multinational company. With subsidiaries at different home and international locations, the global may be challenged by disruption to reduce or focus the geographic footprint.

Conversely, a company that operates in a more global field may retain more options to create redundancy. Therefore, the pressures to become resilient are best observed in the case of the multinational company. The present study takes on the challenge of evaluating global companies' subsidiaries' actions towards resilience. Two contributions are meaningful in this endeavor: a better understanding of the multinational company's footprint when pursuing resilience and a deeper appreciation of the subsidiaries' moves and determining circumstances. In addition, this research narrows the gap in comprehending the parent company's role in generating resilience actions. The literature on the multinational company has documented many aspects of the parent role, such as the parent company's part in determining location choices and entry modes. The parent-specific factors related to subsidiaries' resilience actions are mainly unexplored.

The research presented in this paper focuses on place, i.e., subnational location, as a determinant of firm action towards success. The subnational emphasis is not new in international business literature. However, business disruption and increased uncertainty highlight a need to renew observations of how organizations act at their specific localities and what affects how they work. The consideration of the subnational location's characteristics of resilience activities is distinctive for the present analysis. What distinguishes this study from previous designs is a perspective of the subsidiary from the point of view of their resilience actions at and from their exact locations. Thus, this work adds to the recognition of subnational locations as specific areas where conditions and circumstances impact business activity more than national-level conditions.

In sum, the study is a unique exploration of foreign subsidiaries' activities at the localities. Specifically, the research evaluates whether selected local and firm-level determinants are related to activities designed to increase resilience. The implications of the findings are understanding firm-level resilience strategy while recognizing the impact of regional economies' characteristics on resilience business actions.

The context of the study is the current shift in global and international firms' actions and strategies, from global and efficient to regionalized and resilient. While this shift has been noted in business research in the past, the pandemic and disruptions in supply may represent turning points in how businesses build their supply chains and consider their markets. This is a time when many executives are re-evaluating supply chains (Gale, 2020). We expect that many business decisions are made in companies that transcend national boundaries about their operating geographical footprint. The literature has placed significant interest in the evolving links between global value and supply chains and local firm actions (Comotti et al., 2020). Companies operating and integrating into cross-border supply chains may not have to sacrifice efficiency and have options for strengthening the value chain and resilience. The present study fills a significant gap in understanding how multinational companies take action toward limiting the effects of disruption. Investigating how their activities are spurred by resilience allows for a realistic view of business realities. Evaluating resilience actions in connection with the company and local characteristics gives researchers and practitioners new insights into the global company strategy and the type of factors that affect a subsidiary's activities at a subnational location.

The current investigation is timely. To limit the effects of disruption, multinational companies can shift to more domestic or geographically close production and sourcing, resulting in regionalization of production networks and a focus on proximity to customers. Locality-determined decisions are essential. With an emphasis on resilience, this study aims at uncovering how companies act at particular localities and what determines their actions. "resilience" is one of the key concepts in business literature today. The current study adds to the knowledge on this topic. The expected findings on local foreign firms' resilience-oriented activities and strategies in their local institutional contexts build knowledge about the pathways for developing the markets and industries of tomorrow (World Economic Forum, 2020a). The present exploration of regional foreign direct investment determinants and related activities will uncover actionable insights for local business and economic development professionals looking to establish optimal business strategies and the right institutions for the new financial, industry, and market realities.

The paper is organized as follows. The literature review provides the underpinnings of the theoretical background for examining firm activities and the justifications for the variables included in the study. The research methodology section contains explanations for the main research questions and hypotheses. Hypotheses are developed to test the validity of factors stimulating resilience-oriented actions. Data and the unit of analysis are then described. This section also presents the statistical methodology. A discriminant function is identified for distinguishing between resilience and non-resilience activities based on the potential factors included in the analysis. The following section on results and discussion presents findings, interpretations, and implications for practitioners and researchers in business activity and local development. The conclusion section points out how subsidiary business resilience relates to the overall multinational company's performance and strength.

2. Literature Review

The present analysis aims to verify both theoretical expectations framed by existing theories and executive-orientated outlooks prepared by prevailing data in their power to lead to resilience actions.

This study is grounded in the theory of the multinational corporation. The literature contains well-established theories on how geographical location affects firm performance (Birkinshaw et al., 2006). Theories of agglomeration are related to this perspective, asserting that proximity to specialized labor, complementary suppliers and customers, and access to knowledge spillovers are important benefits for the multinational company. The theory of the multinational corporation states that the locational choices for each business activity are a function of the combined need to create firm-specific advantages and leverage the location-specific benefits. Internalization theory shows how the firm may develop unique capabilities to internalize and monetize the advantages of going international. Contemporary internalization theory (Verbeke & Kano, 2012) investigates the choice of the multinational enterprise's boundaries, the firm's internal governance, and its interactions with external environmental factors. This theory provides relevant grounding for the current research as a framework for considering the multinational company's strategic positioning and ability to link the firm-specific advantages with host location-specific benefits.

The theory of the multinational corporation accounts for location-specific aspects and firm-specific attributes that combine to generate unique strengths that firms may gain when internalizing capabilities across borders. The present study asserts that locality-specific characteristics and firm-specific circumstances may exert predominant incentives on how multinational corporation subsidiaries act or react with resilience-oriented actions. There are also additional ways in which the current study is positioned within the multinational corporation theory. The theory addresses agglomeration aspects closely related to how the present study addresses the presence of other foreign firms at the location of the subsidiary's operations. The current analysis reports on how the presence of other foreign firms affects the business environment at the locations where resilience activities originate. A broad representation of foreign firms at a location may determine how firms react to uncertainty by creating actions designed to deliver resilience.

The subnational context affords the consideration of heterogeneity in host country environments. The location has been a critical research consideration in the past decades, such as in studies on multinational companies' regional perspectives that complement their decisions at the country and firm levels (Arregle et al., 2009). Related research focused on industrial clustering and showed that location strategies must be considered concerning the organizational and institutional reasoning of both the firm and the cluster (McCann et al., 2002). The subnational perspective of this study is supported by well-developed research emphasizing the weaknesses of using the country as the location unit of analysis when it comes to multinational companies' activities (Beugelsdijk & Mudambi, 2014) (da Cruz et al., 2020). While cross-border investments and strategies remain the main focus of the international business, placing the analysis within a special framework that recognizes subnational heterogeneity opens new avenues for research. Such findings support the present study in two distinct ways: it provides momentum for the investigation of how location-driven strategies account for the specifics of the business environment at a particular locality, and it gives supporting arguments for assessing how locality-specific characteristics determine firm actions.

In addition to the subnational location considerations, this study recognizes the importance of the attributes of investment firms and how location characteristics may combine with firm-level factors to determine actions. The perspective of this investigation is aligned with extant studies suggesting that multinational companies have different characteristics and needs for complementary resources in the external environment, as well as varying abilities to draw competitive advantage (Nachum & Wymbs, 2005). Drawing from local environments to generate distinct advantages provides the basis of the current study. The present study concedes the limitations of recent research in addressing the external environment in very general ways and aims to consider more specific aspects of the locally bounded climate that directly relate to the tendency of firms to engage in resilience-oriented activities. The approach taken in the present study is to investigate in more detail how location-specific circumstances determine how firms pursue competitive advantage via resilience.

Theoretical and empirical outcomes are complemented by data drawn from practice. Less than 13% of globally traded goods are exported from low-wage to high-wage countries (Lund et al., 2020), suggesting that companies no longer seek low-cost locations for their operations. Factors such as access to a skilled workforce, access and proximity to markets, a favorable business environment, and being part of a strong supplier ecosystem may outweigh the labor and other low-cost considerations. The present study considers these newer developments by evaluating similar local aspects in their connection to the firms' choices to pursue resilience. Specifically, the analysis includes the availability of a workforce in specialized fields, market size, and presence of similar firms rather than the overall cost of doing business considerations. This approach offers an opportunity to assess how new motivators of location selection impact the choice to develop resilience.

McKinsey (Lund et al., 2020) estimated that "production of some 16 to 26 percent of global trade, worth $2.9 trillion to $4.6 trillion, could move across borders in the medium term" as a "combination of reverting to domestic production, nearshoring, and shifting to different offshore locations." Moving the physical footprint of supply chains is one of the options for building resilience. Alternatively, literature suggested little support for the idea that reshoring improves resilience, noting that highly concentrated production leads to vulnerabilities, and supplier diversification leads to costly redundancies in inventory and production capacity (Miroudot, 2020). As such, re-localization may not be the primary approach to mitigate uncertainty. Multinational companies can use their international network to relocate production, thus operating in multiple markets. Rather than rethinking supply chains, decisionmakers may consider the location advantages they need. In addition, agility, adaptation, and dynamic capabilities may be drawn from company scale and performance. To advance this literature, similar aspects are tested in the present analysis. In addition to the factors related to the physical location, the model introduced here evaluates whether parent-company strength (specifically, size and performance) is important for resilience.

In sum, data presented in recent reports and scholarly endeavors identify two phenomena: the momentum to focus business activities in locations that hold special conditions for innovation and development; and the push to utilize an international network of operations for mitigating the negative effects of external pressures. The current work furthers the knowledge identified in ongoing academic and practical inquiries and checks the interplay of the two phenomena in determining resilience action.

Findings of recent literature underscore key contributing factors to resilience. Two significant location determinants of a firm's actions are specialized labor availability and market size. While observations on these aspects exist, no predictive analysis has yet been completed on how the factors impact resilience action. To cover this limitation, the present work considers production and management labor availability as important determinants of foreign subsidiaries' activities across the U.S. states. It includes the local market size as an important factor determining foreign subsidiaries' resilience actions. Other researchers have explored the importance of domestic market size for business action and performance (Oh & Rugman, 2012). Like in this literature, gross domestic product is used in the current study to evaluate how the local market determines resilience. The McKinsey report mentioned above concludes that more companies are building redundancy into supplier networks and business partnerships. Close relationships feature highly in decision-making. This is the right time to test whether foreign firms' agglomeration at a particular location supports resilience. Hence, the present study evaluates whether foreign firms' presence relates to subsidiaries' resilience activities in that locality.

The internalization theory indicates that company-level factors influence the multinational company's activities. The present paper further asserts that company-level conditions likely support or deter activities oriented towards building resilience. Therefore, the all-encompassing firm-level variables of parent company size and performance are potential predictors of resilience. In doing so, this investigation finds its support equally in tried-and-tested theoretical frameworks that explain the motivations of the multinational location choices and actions and in existing data about the presence and outcomes of international business activity.

3. Research Methodology

3.1 Research question and hypotheses

Emergent thinking recognizes that business leaders seek to improve global activities' viability and rethink their localization efforts (World Economic Forum, 2020b). The present research investigates ways foreign companies act in their localities and establish connectedness with the local environment. To provide the setting for these examinations, the study endeavors to answer the question: What factors determine the resilience activities of foreign subsidiaries at subnational locations?

Previous studies (Kornecki & Ekanayake, 2012) have found that, traditionally, several local factors determine foreign direct investment, such as per capita income, education measures, FDI-supported employment, state taxes, labor costs, manufacturing density, unionization, and unemployment rates. Recent reports (World Economic Forum, 2019) call for identifying new aspects that may attract investments and drive innovation, such as public and private sector partnering, local educational partnerships, and policies and frameworks to facilitate collaboration among firms. This study relates to this literature and aims to test some locational factors' significance in determining FDI-related actions, particularly on resilience. The concept of resilience is relatively less understood when compared to traditional ways to reduce and manage risks. This study separates resilience activities from activities designed to achieve other business outcomes per a recent nomenclature by Reeves and Whitaker (2021). Resilience activities are actions to create new structures and decision processes. These actions are aimed at producing the following outcomes: redundancy (duplicating elements or having different features achieving the same end); diversity (creating an environment that fosters multiple ways of doing things); modularity (building a loosely integrated business design); adaptability (adopting processes and structures designed for flexibility); and embeddedness (alignment with broader systems). Other types of resilience activities are strategies: migration strategies (shifting business elements across products, channels, or geographies), environmental shaping (realizing new realities in dynamic environments), and collaboration (building and reinforcing business ecosystems). As described in the literature review, this study seeks to identify how specific determinants can discriminate between resilience and non-resilience activities. Particular factors are tested: local market size, availability of labor, foreign firms' presence, and parent company's size and performance.

The first hypothesis draws directly from the main research question and poses that various predictors may represent dimensions along which resilience versus non-resilience activities can be differentiated. This is an integrative perspective and a comprehensive check that local and parent-company attributes do indeed affect resilience actions. It is hypothesized that some factors interact to provide the right circumstances for decisionmakers to pursue business resilience. These determinants could represent pressures from the local environment or the parent company, and the right conditions may determine whether the local subsidiary pursues resilience activities.

Hypothesis 1: *Foreign subsidiaries' type of business activities (resilience-focused or not) differs significantly across local and parent attributes dimensions*.

The second hypothesis focuses on the subnational location. As supported by extant findings, it is expected that a favorable local environment would likely provide the right conditions for subsidiaries to apply resilience actions. A locality conducive to building dynamic capabilities such as innovation and networking will likely incentivize the firm to build a strong foundation for the future and look for ways to reduce risk. Thus, the hypothesis stipulates that resilience activities can be predicted from local environment characteristics, such as market size, availability of labor, and other foreign firms' presence.

Hypothesis 2: *Foreign subsidiaries engage in resilience activities when the local environment for business is strong.*

The last hypothesis changes focus from external local factors to the parent company's characteristics. Local subsidiary action is always, to some extent, affected by the overall multinational company's agenda, and the company's size and performance may primarily influence the parent's directives and support. Large-size multinationals are more likely to have an intricate global value and supply chain, as well as a diversity of operations across countries. Thus, these companies are affected by worldwide disruption and uncertainties. On the other hand, large companies have the resources and capabilities to pursue new moves for business resilience. Besides, a company with good performance is almost certainly one that has valuable dynamic capabilities across its subsidiary network, and it is consequently well-positioned to leverage its strengths to become resilient at each location. Therefore, the last hypothesis states that parent firm-level predictors determine the extent to which foreign subsidiaries pursue resilience.

Hypothesis 3: *Foreign subsidiary's engagement in resilience activities depends on parent company characteristics.*

3.2 Data and methodology

The conceptual framework of this study connects a foreign subsidiary's activity as a category (resilience oriented or non-resilience-oriented) to factors defining the external environment of the location where the business activity originates and to elements describing the characteristics of the parent company. The research model is designed with variables that operationalize the following: the activity category with coding distinguishing resilience-oriented activities from the rest; the host environment factors with selected local economic measures; and the parent-company characteristics as measures of scale and performance. The assumed relationship is one of cause and effect. The external and parent-company variables represent the cause and effect of resilience activity type. Specifically, high values of the variables describing a favorable local environment are expected to be more associated with resilience activities than with any other types of activities. For parent-level variables, the expectation is that such variables cause a resilience orientation. The conceptual model aims to uncover the actual effect of positive or negative parent-level variables. The research model reflects the objectives of the research process to identify the factors that cause resilience action. Together, the conceptual framework elements allow for conclusions on whether, and particularly what, external or company circumstances are predominantly motivating resilience action. These conclusions have meaningful consequences on how subsidiaries build resilience, where the multinational company can create value and focus on local economic development about business resiliency. The model is conceptualized to test the relationship between resilience-oriented activity and its determining factors during disruption. The overarching theme of disruption is reflected in the data collection timeline.

Data on foreign subsidiaries' activities across U.S. states were collected during the time interval between January 2020 and October 2021. The information on each foreign subsidiary's activities was accumulated from the "Regional Business News" EBSCO database. The information on activities was separated into two categories. The data were coded as representing resilience activities if the actions described fit the categories described in the main research question and hypotheses section. Activities that did not include the resilience descriptions were considered to be non-resilience activities.

The market size of each U.S. state where foreign subsidiaries' activities are taking place has been evaluated as the state gross domestic product. Data for Gross Domestic Product (GDP) of the United States in 2020, by state (in billion current U.S. dollars), were collected from the Bureau of Economic Analysis (available at https://www.bea.gov/data/gdp/gdp-state). Data on labor availability predictors were of two kinds: employment in production occupations by state, and employment in management occupations, by state. The source was the SelectUSA Workforce Data Analysis platform (available at https://www.selectusa.gov/workforce_data_analysis). The presence of foreign subsidiaries by the state was operationalized as U.S. jobs directly supported by foreign direct investment, by state, from SelectUSA state and territory factsheets (available at https://www.selectusa.gov/FDI-global-market/states-territories). The parent company's size was evaluated as the number of employees at all locations, and the parent company's performance was appraised as total revenues. Both data series for parent companies were collected from Dun and Bradstreet Business Directory (available at https://www.dnb.com/business-directory.html).

A total of 196 complete observations were gathered. The resilience was set as a binary nominal variable, with two categories: resilience activities and non-resilience activities. The rest of the variables were included in the statistical model as independent scale variables. Most of the observed foreign subsidiaries' state-level activities were not focused on building resilience (72%). The total size and revenue performance vary across the parent companies of subsidiaries engaged in the resilience and non-resilience activities assembled, with a majority of large multinational companies represented in the sample. Table 1 shows descriptive statistics for the variables.

Table 1. Descriptive Statistics for Resilience and Predictors Data

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Resilience	196	1.00	0.00	1.00	0.28	0.45
State GDP	196	3059.07	32.80	3091.87	413.29	686.62
State employment in production occupations	196	807680.00	29100.00	836780.00	267342.09	169813.49
State employment in management occupations	196	1057810.00	12310.00	1070120.00	264599.08	225579.45
State jobs directly supported by foreign direct investment	196	829600.00	14300.00	843900.00	282187.75	190861.27
Parent company number of employees	196	271686.00	200.00	271886.00	65185.90	77150.48
Parent company revenue	196	11100.00	0.01	11100.00	547.45	1739.03

Source: Author's Own

Discriminant analysis was used to process the data. The model identifies discriminant functions and equations that differentiate across values of the dependent variable. Each position provides a discriminant score from the weighted combination of the independent variables. To solve for the discriminant function score, the following equation is used:

$$D = a + b1 * MS + b2 * EP + b3 * EM + b4 * FS + b5 * PS + b6 * PP,$$

Where: D is the predicted score on the activity variable, and bi is the coefficients associated with the predictors. The predictors included represent M.S. is the market size, and E.P. is employment in production occupations. E.M. is employment in management occupations, F.S. reflects the presence of other foreign subsidiaries, P.S. is the parent company's size, and P.P. is the parent company's performance.

The discriminant function is appropriate for predicting the grouping of the two categorizations of business activities (resilience-oriented or non-resilience oriented) from the set of local and parent-company predictors. The discriminant function provides the best linear combination among the independent variables that maximally discriminate between the two groups of activities. The discriminant function also allows the researcher to find the classification algorithm. The multivariate normality and absence of outliers characterize the data considered for this study. The variables are correlated, but the multicollinearity is not excessive.

4. Results and Discussion

4.1 Findings and interpretations

The results indicate that only the parent revenues influence resilience-oriented activities. From the statistical model application, the Canonical Discriminant Function identifies the parent company's revenues as the only significant variable, with a Wilks' Lambda significance below 5 %. The structure matrix separates parents' revenues as the predominant predictor in the discriminant function that highly differentiates between resilience and non-resilience activities. The statistical findings indicate that local statewide characteristics (market size and availability of labor) do not discriminate on whether foreign subsidiaries pursue resilience activities or not. Therefore, the parent's performance gives the subsidiary the strength and ability to pursue resilience activities at the chosen locality. Selected results are presented in Table 2. The statistical measures shown correspond to a stepwise procedure, which identified the parent revenues as the only factor with a significant loading into the discriminant function. Although the canonical correlation is low, the significance is acceptable. As displayed in Table 3, the ordered variables by the total correlation size within the discriminant function also show the parent revenues as the meaningful predictor of resilience versus non-resilience distinction.

Table 2. Summary of Discriminant Analysis on Variables Associated with Foreign Subsidiary Subnational Resilience Activities

Test of function:	Chi-square = 4.814	Wilks' Lambda= 0.975	Sig= 0.028
Eigenvalues:	Eigen value= 025	Cumulative %= 100	Canonical Correlation = 0.157

Source: Author's Own

Table 3. Structure Matrix Identifying Predictor Loadings in the Discriminant Function

	Function
	1
PP	1.000
EM	-.126
F.S.	-.103
M.S.	.039
P.S.	.038
E.P.	-.030

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions are shown. Variables are ordered by the absolute size of correlation within the function.
Source: Author's Own

The first hypothesis expected a variety of combined dimensions to determine whether foreign subsidiaries' activities are classified as resilience-oriented or not. Applying the discriminant function finds no support for this hypothesis. The results also do not find evidence in favor of the second hypothesis. The characteristics of the local environment do not enhance the propensity of foreign subsidiaries to pursue resilience. The statistical outcomes back the last hypothesis: the parent company's overall revenues determine the subsidiary's inclination for resilience actions. The statistical solutions are noteworthy in the context of subnational locations. States with a presence of or that attract the interests of foreign companies that enjoy strong performance are the locations where business resilience actions originate.

The results identify two phenomena. First, the host environment of business, shown by the literature to attract or discourage foreign direct investment, does not make a difference regarding resilience-building. Despite expectations by researchers and practitioners that a robust external environment encourages actions to generate resilience, the key finding of the present study contradicts extant work by showing a result that favors an alternative explanation. It appears that when the local host environment is favorable to business in terms of market size, access to labor, and agglomeration effects, it may provide the subsidiary no incentive to produce resiliency more so than other desirable business outcomes. Conversely, subsidiaries in such locations may draw from the local factors in general and use the opportunities that arise from a favorable business climate for all their business activity, not just the activity designed for resilience. The external environment becomes irrelevant for distinguishing resilience versus non-resilience action. A larger market, superior availability of labor, and the presence of similar firms make no difference when seeking resilience. These vital elements of the business climate will likely benefit the subsidiary regardless of its activities.

The second phenomenon uncovered by testing the conceptual model represents the connection between the parent-company strength and resilience action. The subsidiary with enhanced revenue-producing parents is well positioned to develop resiliency. This finding fits the literature that draws from the theory of the multinational corporation. Strong international companies create unique strengths and advantages by leveraging benefits in different locations. It is not the location-specific advantages per se that produce the right circumstances for resilience but rather the capabilities to leverage, combine and deploy benefits across the network of subsidiaries.

The results of the present paper also add evidence for the workings of the internalization theory. Multinational companies draw higher revenues and performance from their abilities to internalize and monetize the advantages of going international. The evidence here thus supports existing studies that draw from contemporary internalization theory. However, the findings also show nuances of how the effects of internalization materialize in the firm actions: rather than an interplay of external and firm-level advantages leading to different activities, the outcome of the benefits and how the organization exploits them, the overall performance, is reflected in movements of resiliency.

Validation is found for the nomenclature that separates resilience activities from other business activities. Using an existing framework that lists the actions that suit resiliency outcomes (as described in the methodology section) proves beneficial for defining resilience and investigating what determines it. Upon application, the nomenclature fits the actual data well and reflects the realities of how firms seek resilience.

The application of the research model also supports the choice of the subnational location as a good and valuable place of analysis. The subnational spatial consideration brings specificity and practicality to the current study's findings. The work does not generalize the external environment at the national level and accounts for the heterogeneity of the market, labor, and business presence across host localities. This approach acknowledges the importance of subnational applications of theories of the multinational, recently taken on by researchers. The statistical strength of the testing model gives this view corroborating evidence.

Finally, the present results support scholarly work noting that simply considering location when pursuing resilience may be ineffective. As shown in the literature review, recent research indicated that concentrating activity at a location leads to vulnerabilities and that expanding the geographic space of the business increases costs. Like in this study, existing works posited that multinational companies could leverage their competitive advantages across their international networks to deploy resiliency effectively. The results here give support to such claims. When company performance is shown to distinguish resilience-oriented activities, it can be seen how the subsidiaries' agility, adaptation, and dynamic capabilities can be pulled from the parent.

4.2 Contributions to current understanding of resilience and practical implications

Business resilience is a famous and new research avenue in business. Analysts have identified that the interdependency between the multinational company's development and the broader development of the subnational location is a highly relevant aspect of international business theory and practice (Lorenzen et al., 2020). Notably, analysts' insights at this moment remain conceptual. The present study takes this research agenda further with data and empirical findings. This article offers a better understanding of the subnational foreign companies' activities. The normative model relates resilience activities with local determinants and firm-level characteristics. The application and results give unique insights on how to encourage and expand foreign businesses' activities at a subnational location as an engine for growth and local development.

Investigations of firm activities in the context of disruption, like in this study, give an updated perspective of what global business looks like after a significant disturbance and the level of connectedness between global and local businesses. These findings are pertinent to several business fields: business strategy and management; operations management (sourcing and supply chain management); and economic areas: economic development; public policy. New data, a renewed focus on firm activities and supply chains, and a localized perspective are all unique features of the current study, warranting attention from researchers and local economic development professionals.

The statistical results show that the local market size and labor characteristics are not in play for determining the foreign subsidiaries' moves towards resilience. Instead, the parent's performance may determine whether subsidiaries pursue stability at their subnational locations. The literature review showed a plurality of possibilities given the recent vulnerabilities of international supply chains and the current state of globalization. The findings here suggest that the resilience activities of the multinational company may not be stimulated by the opportunities its subsidiaries find in their respective locations. Parent-level overall performance is the source of such activities. This phenomenon may be related to how successful multinationals build and rely on dynamic capabilities to remain lucrative. Thus, the results of this analysis suggest that the generation of flexibility and agility as dynamic capabilities should become priorities for global and international companies. This situation may not necessarily mean that local business development activities should be discounted. Local policymakers can create the right environment for attracting multinational companies. A platform for dialogue between foreign firms and public institutions could serve as a space where dynamic capabilities can be explored and developed. Such an outlet could be a place for networking, communication, and collaborations among foreign firms and local entities, encouraging firms to exchange ideas for resilience. Dialogue would allow firms and local governments to cooperate and prepare better for risks. Support for this type of networking can be found in business literature, advocating for subnational governments to increase their profile and level of cooperative activity (Lundan & Cantwell, 2020).

Although this study finds that solid parent performance is the predominant force promoting resilience activities, local action can play an essential role in disseminating resilience. If high performance is key to resilience, multinational enterprises can be positioned as international knowledge integrators. Firms and governments co-evolve and create the basis for sustainable business and economic growth. Foreign subsidiaries already local centers of excellence or knowledge can champion or share resilience and agility outcomes. Innovation and resilience in the future will likely result from frequent knowledge-based interactions among the private and public sectors, combining local and international intelligence.

The research limitations include the author's interpretations in coding resilience activities, a somewhat limited data set and using a model focused only on several key variables. These shortcomings are slightly alleviated by a systematic approach to evaluating resilience, the timeliness of the data, and a statistical methodology with high flexibility. Future research can develop the model of studying business activities to expand the facets of resilience and incorporate various predictors into a more comprehensive analysis model.

5. Conclusion

This study provides researchers and practitioners with knowledge for business strategy development and deployment, particularly considering resilience and local interactions. The paper adds to theory building in resilient business models, strategic actions in response to uncertainty and disruption, and subnational environment factors determining business strategy. Empirically, it is shown that business resilience in disruption times is inherently tied to overall performance: a strong parent company gives subsidiaries the strength and the abilities to pursue resilience from their localities. This means that, at the subsidiary level, actions for increasing business agility can primarily rely on the parent's success regardless of the challenges or opportunities in the local markets. The findings inform multinational companies' executives and decisionmakers that they should strive to generate adequate revenues and business performance in preparation for disruption and support of affiliates' resilience at all localities.

From a managerial perspective, the present findings have implications for leaders of the parent company and for executives of the local subsidiaries. Parent-level leadership is informed about allocating and reinforcing resources and capabilities that drive performance in general and that can be deployed across the network of subsidiaries. This means that the parent, as a conglomerate of affiliates and a center for innovation and adaptability, is the source of robustness that leads to specific resilience actions of the subsidiaries. The research here shows that subsidiaries engage in a variety of resilience-oriented activities. What distinguishes such activities from other strategic activities is that subsidiaries have a parent with strong revenues. Thus, the parent company's performance reverberates not only in the performance of its network of subsidiaries but also in the actions that the subsidiaries take. Subsidiaries with suitable business growth parents may benefit from the right kind of capabilities to innovate and be nimble. Beyond the impact of such abilities on the subsidiary's performance, they also give the firm the necessary tools to carry out resilience. Therefore, parent and multinational headquarters leaders are advised to build the capabilities that strengthen the company and empower subsidiary-level decision-makers to build resiliency in their operations. For companies that already enjoy strong capabilities and revenues, leaders are recommended to view these as a lever for assisting subsidiaries in their resilience endeavors.

Local subsidiaries' executives also benefit from the results shown in this study. They are informed to seek the parent's capabilities and strategies that generate good revenue levels and to use them to build the resiliency of their business units. Executives should view resilience as an action that is not necessarily driven by the conditions at the host location. Internal motivations and the benefits of being part of a network of businesses with a strong parent are vital to engaging in resilience-building. There is strength in the parent affiliation that can drive resiliency.

The implications of how parent and subsidiary level performance and resilience are related add to the practitioners' decision-making abilities and the researcher's understanding of the multinational company. The theory of globalization asserts that international companies combine and internalize various benefits of operating internationally to generate unique advantages. This paper contributes to the idea by showing why firms undertake resilience actions rather than alternative strategies. Past research focused on the drivers of foreign direct investment, and this study addresses a different facet of the strategic choices of the multinational and proposes a framework for analyzing the drivers of strategic resilience actions. The examination uses common operationalizations employed in testing and developing the theory of the international company, such as location and firm-specific predictor variables. Two key contributions make the present investigation valuable. The work expands the idea by showing the broad applicability of determinants to other strategic activities beyond foreign direct investment and adding new insights into how multinational companies approach resiliency.

Future research should continue to develop the connections between foreign direct investment and resilience activities. More focus can be placed on resiliency and how it shapes foreign direct investments. Firms may carry out projects during and after disruption aimed at redundancy and further integration in business ecosystems. New determinants of foreign direct investment may be explored, such as how the multinational can utilize its strengths to make foreign direct investments that strategically increase its overall capacity to withstand shock.

A valuable area of investigation is what makes the multinational choose resilience from its other strategic alternatives. Conventionally, global companies have been conceptualized as risk-neutral decision-making entities, and traditional international frameworks rely on a short-term focus on efficiency and a long-term emphasis on profitability. New realities require new conceptualizations. Within these, resilience can be used to frame new theories about international activity, foreign direct investment, and the spatial footprint of the multinational. The present paper provides a step in this direction and a timely extension of the global company theory to embrace non-efficiency considerations and recognize the multitude of distinct subnational environments in which it operates.

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