ASSESSING THE IMPACT OF DIVERSIFICATION STRATEGIES ON THE FINANCIAL PERFORMANCE OF NON-FINANCIAL FIRMS: EVIDENCE FROM THE GHANA STOCK EXCHANGE

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Abstract: The impact of geographical and product diversification on the financial performance of non-financial enterprises listed on the Ghana stock exchange is investigated in this study. The objective is to find out how various diversification measures affect the profitability of the company. The research used a number of statistical methods, such as correlation and multiple regression analyses, using data gathered from a cross-section of businesses outside of the banking sector. Distributing resources across different product lines might not boost profitability, according to the results, which show that product diversification hurts financial performance. However, geographical diversification was found to have a positive effect, albeit relatively modest, indicating that expanding into new geographic markets can contribute to enhanced firm competitiveness and value creation. These findings add to what is already known about the relationship between company diversity and financial performance, and they show how important it is for managers to weigh the pros and cons of various diversification techniques. The study emphasizes the importance of considering industry and market characteristics when making strategic decisions regarding diversification.

Keywords: Corporate diversification, Product Diversification, non-financial firms, Geographical Diversification, profitability

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Introduction

Organizations recognize the importance of diversifying their businesses to maximize benefits while minimizing risks in the current market (Mehmood et al., 2019). With globalization opening up opportunities for cross-border expansion, corporate diversification has become a necessary strategy for companies to thrive in competitive and diverse environments (Mehmood & Hilman, 2017; Mehmood et al., 2019). According to Slahudin et al. (2008), corporate diversification aims at achieving growing profitability, market share, debt capacity, growth potential, risk mitigation, and effective utilization of human and financial capital. The ability of a firm to successfully adapt to the changing environment is crucial for its survival, with strategic planning and managerial capabilities serving as valuable tools in such challenging circumstances (Tallon et al., 2019). According to De Roest et al. (2018) and Mayer et al. (2015), businesses may increase their value through diversification if they broaden their client base and compete in more marketplaces and industries. Based on their increased financial and operational flexibility, diversified firms—whether on a national, international, or geographical level—tend to be more profitable than domestic

firms, according to de la Fuente and Velasco (2020). Olibe et al. (2019) emphasise that diversified firms can control unsystematic risk. Companies diversify for a variety of purposes, including to increase profits, decrease risks, expand market share, improve debt capacity, increase growth potential, lengthen the business cycle, and make better use of resources (de la Fuente & Velasco, 2020; Olibe et al., 2019). In today's complex business landscape, the survival of corporate firms is increasingly challenging. Given the complex, globalized, and demanding environment, firms must diversify their operations into different products and markets to ensure their survival and improve their financial performance (Mayer et al., 2015). However, as highlighted by Reguera-Alvarado et al. (2017), corporate diversification plays a significant role in enhancing firms' financial performance. Uncertainty, dynamism, volatility, and fierce rivalry define today's business climate, which presents chances for expansion as well as threats. The very existence of the organisation is in danger due to these external factors. Multinational corporations can take use of the opportunities presented by the current period of liberalisation, privatisation, and globalisation to grow their business outside national borders. According to Nath et al. (2010) and Tien & Ngoc

(2019), organisations can gain a competitive edge by diversifying their goods and markets. Different schools of thought have offered different approaches and conceptualisations of diversification. One view holds that it entails a single company controlling several firms at once (Lashitew et al., 2021). On the other hand, according to Beaumont et al. (2022), firms can diversify at the corporate or company level, for example by introducing new goods. It is unclear from this description if a product is relevant to a company's operations or not. Increasing the number of firms is one strategy for driving development, expansion, and reducing total company risk (Boz et al., 2013). The specialisation ratio, which calculates the proportion of a company's sales that come from a single product relative to the overall sales of the business, is another metric that may be used to evaluate corporate diversification (Mehmood et al., 2019). The problems with operationalisation, however, have led to criticism of these definitions.

According to Beaumont et al. (2022) and Tien and Ngoc (2019), there are primarily two ways in which companies might diversify: by product or by geography. Past research has used and evaluated these categories to quantify corporate diversity and analyse its effects on performance (Ali et al., 2016; Hoechle et al., 2012; Kang et al., 2011; Singh et al., 2010). In recent decades, several studies in management literature have investigated the correlation between corporate diversity and business success. Notable examples include works by Barton (1988), Dubofsky and Varadarajan (1987), Graham et al. (2002), and Sambharya (2000). Management of diversification has been shown in the past to improve business results. One example is the finding of Mayer et al. (2015) that suggests synergies may be achieved by combining product diversity with international expansion. Also, according to Oladimeji and Udosen (2019), companies may attain profit stability by combining related-product and international diversification strategies. Synergy between product and international diversification can only be achieved via efficient management of corporate diversification. According to popular belief, "you do not put all your eggs in one basket." This adage appears to be the inspiration for the concept of diversification. If everything is in one basket and that basket were to fall, every egg would crack. This is the implied meaning behind the saying. You should not mix unrelated items with eggs or closely similar products since it might cause damage. Keep in mind that not all products are the same as eggs. This may provide light on the question of why variety has been shown to improve performance in certain research. With the goal of maximising prospective profits, corporate diversification is a common strategy among Ghanaian investors and enterprises. Investors accomplish this diversification by building their portfolios with well-considered asset pairings (Logubayom & Victor, 2019). Corporate diversification among Ghana Stock Exchange listed enterprises has been further strengthened by the introduction of new innovations (Kalayci et al., 2019). Theoretical and practical viewpoints on diversity differ due to the fact that it has the potential to increase or decrease a company's value. Research on the link between diversification and business success in developing nations, such as Ghana, is sparse in comparison to the wealth of literature on the topic in industrialised nations. Consequently, the purpose of this research is to examine how non-financial firms traded on the Ghana Stock Exchange (GSE) fared after they diversified their business strategies. The study delves into the ways in which these companies' financial performance is affected by product and geographical diversity, and how much of an impact product geographical diversification has on their financial success. This study's results will add to the body of

knowledge and pave the way for such investigations in the future. By highlighting topics that need more investigation, it will also give prospective researchers useful information.

Literature review

This section reviews existing literatures on the effects corporate diversification on non-financial firms on GSE. The review will critically discuss the existing scholarly materials, related articles, journals and other research papers examining corporate diversification.

Theoretical Review

Pecking Order Theory

The theory formulated by Myers and Majluf (1984) suggests that managers tend to choose safer securities to finance a company's capital deficit. It further states that if internal funding sources, such as retained earnings, are insufficient for significant investments, managers opt to issue debt instruments. Consequently, according to this theory, financial managers can only issue new equity when the company is facing financial distress (Oino & Ukaegbu, 2015). The underlying principle of the theory is that companies with promising growth prospects may turn to debt financing once internal funds are no longer sufficient (Martinez et al., 2018). As a result, there is a likely positive relationship between firm growth prospects and debt issuance, as managers invest in ventures that can sustain long-term company growth. The Pecking Order Theory suggests that companies seeking high growth opportunities should pursue large, long-term investment projects (Frank et al., 2020). When internal funding sources are depleted, most businesses prefer debt financing over external equity, as it has been associated with higher company performance (Ahmad et al., 2015; Cole & Sokolyk, 2018). Understanding this theory is crucial for comprehending how the capital structure, influenced by corporate diversification, can impact organizational performance.

Signaling Theory

The signaling theory is employed to demonstrate the informational significance of management actions within a business. When organizational management makes announcements, they send signals to the market that investors utilize in their investment decision-making process (Myers & Majluf, 1984). Investors rely on these signals to forecast the expected future performance of the company, based on the information provided. The underlying assumption is that the management of an organization possesses superior knowledge regarding the true value of the company, which may not be readily available to external stakeholders (Omran & Ramdhony, 2015). The signaling theory suggests that the level of diversification in a company's business activities conveys the management's ability to maximize financial performance (Restianti & Agustina, 2018). Applied to diversification and financial performance, this theory implies that when businesses anticipate investment opportunities with positive net present values, they are more likely to invest in them. By doing so, they signal to the general public their expectation of stronger financial performance in the future.

Agency Theory

Jensen and Meckling's (1976) agency theory stresses the significance of overseeing the agent-principal dynamic that develops when management and ownership of a company are

divorced. Due to differing viewpoints between managers (agents) and shareholders (principals), organisations may adopt distinct diversification strategies. A solid financial position and aligned expectations between owners and managers need the incurrence of agency costs associated with managing these different interests (Bosse & Phillips, 2016; Moradi & Paulet, 2019). Managerial authority and the efficacy of corporate governance procedures, in accordance with agency theory, determine the extent to which diversity affects financial performance (Guping et al., 2020). Based on the hypothesis, managers' self-interest is the driving force behind business diversification. A lack of equal access to information makes it difficult for shareholders to gather, review, and understand all paperwork pertaining to unethical management practices (Lan & Heracleous, 2010). So, managers that are quick to seize opportunities may use diversity to their advantage, even if it means putting stakeholders at risk. The agency theory demonstrates that a company's performance is significantly affected by its level of corporate diversity (Hassan et al., 2015; Naciti, 2019; Panda & Leepsa, 2017). An impact called the management entrenchment effect can occur when managers seek diversity in order to boost demand for their own abilities (Di Meo et al., 2017). Managers may invest in ways other than maximising value, according to this impact. Another justification derived from this idea is that shareholders, in contrast to managers, may effectively diversify their portfolios through the purchase of various assets, but managers may find it difficult to do the same (Arikan & Stulz, 2016; Mackey et al., 2017). Managers may seek development by diversifying their strategies.

Empirical Literature

An complex and often contested subject is the effect of diversification tactics on the performance of firms. In industrialised nations, prior research has shown mixed results on the correlation between corporate diversity and company success. For example, H. Kim et al. (2015), Montgomery (1994), and Park and Jang (2013) found a positive correlation between the two. These results are consistent with ideas of internationalisation, internal market efficiency, resource-based perspectives, and the market. There are a number of studies that have shown the opposite to be true: Berger and Ofek (1995), Kim and Mathur (2008), Lang and Stulz (1994), Lu and Beamish (2004), Ramadhan and Nugroho (2017), and Wan and Hoskisson (2003). Managers may have unrealistic expectations about the benefits of diversity, leading to principle-agent difficulties and these kinds of consequences. On top of that, some research has failed to find a correlation between diversity and improved company performance (Christensen et al., 1999). Corporate diversification and business performance may have a U-shaped connection, according to the mixed data (Kang et al., 2011; Mathur et al., 2001; Palich et al., 2000; Singh et al., 2010). The costs and advantages of diversity are also seen to be balanced. These findings suggest that, up to a point, diversification can lead to economies of scope and scale, but that performance suffers when agency problems and internal inefficiencies cause the marginal costs of diversification to exceed its marginal benefits (Anıl & Yiğit, 2011; Kang et al., 2011; Ramírez Alesón & Escuer, 2002; Singh et al., 2010).

Research on the effects of diversification policies in developing nations like Pakistan is sparse, in contrast to the wealth of literature on the topic in industrialised nations. According to the Modigliani-Miller theorem, which was stated by Modigliani and Miller in 1958 and 1963, in a perfect market with rational investors, a company's market value shouldn't be affected by

changes in its financial structure or the purpose of retained earnings. The connection of cash flows from different business units is the reason why diversified organisations have a lower cost of capital than standalone enterprises, according to Hann et al. (2013). By capitalising on assets unique to the company, increasing operational flexibility, and satisfying investor demands for a varied portfolio, global diversification is seen to increase shareholder value. When capital costs are low and markets are efficient, diversification plans don't work as well (Mehmood et al., 2019; Tanui & Serebemuom, 2021). Companies in these markets may not find an internal capital market to be very beneficial due to the abundance of external capital and the lack of knowledge asymmetries. When the advantages of diversification exceed the costs, these companies are more inclined to do so, which improves their performance (Tanui & Serebemuom, 2021). A dominating undiversified firm may do better than a highly diversified one, according to some research (Nigam & Gupta, 2020, 2021; Oladimeji & Udosen, 2019), but other research has shown that, on average, diversified firms do better than undiversified firms on risk and return dimensions.

Corporate Firm Performance Diversification

According to Schmommer et al. (2019), corporate diversification is the process by which a company's resources are distributed among its optimum portfolios in order to produce the best possible returns. The causes and effects of diversification strategies in companies have been well investigated in the literature (Hoskisson & Hitt, 1990; Krivokapić et al., 2017; Mehmood et al., 2019; Schommer et al., 2019). The decision to diversify is impacted by numerous factors, such as competition, economic climate, resource endowment, technological discontinuities, risk appetite, managerial motives, and dynamic capabilities (Bowen et al., 2015; Eckardt & Skaggs, 2018; Gaur & Delios, 2015; Hernández-Trasobares & Galve-Górriz, 2020; Mayer et al., 2015; Mackey et al., 2017; Manyuru et al., 2017; Song, 2022; Tallott & Hilliard, 2016; Wang et al., 2020). In order to represent judgements on the relatedness of diversification, the amount of diversification can be classified on a continuum from unrelated to related (Adner & Zemsky, 2016; Dhir & Dhir, 2015; Dhir & Mital, 2012; Pehrsson, 2019). The resource development and acquisition processes, such as internal development, acquisitions, and alliances, are all part of the manner of diversification, which has also been studied by researchers (Mackey et al., 2017; Yin & Shanley, 2008). (De Roest et al., 2018; Dhir & Dhir, 2015) The manner of diversification includes the breadth of existing and new product-market activity.

By spreading their operations over several nations, businesses may take advantage of countries with cheaper labour or higher demand. This allows them to be more adaptable and quick to respond to changes in the market (Verbeke & Asmussen, 2016). For companies with a global presence, this adaptability is a huge plus.

Methodology

Based on data available from 2012 to 2018, this quantitative analysis chose a sample of eighteen non-financial enterprises listed on the Ghana Stock Exchange. By analysing the firms' audited annual accounts and secondary data collected from several databases, the research sought to guarantee dependability. The GSE database was queried for the financial data used in the investigation. The study used the ordinary least square (OLS) approach to analyse the data. This statistical methodology

minimises the variance between the actual responses and the predicted responses based on the model, which is used to estimate unknown parameters. The research made use of data that was organised into time series and panel data. Using panel data, we were able to examine variables that differ between entities but do not change over time, in contrast to the time series data that included all variables from 2012 to 2018. Because of this method, the research was able to tackle more complicated problems and cover more ground. Additionally, it made it easier to manage factors that could not be quantified or witnessed. This study's research builds on and expands upon the model put out by Koutsoyiannis (1977), adapting it to meet the analysis's goals.

Therefore, the empirical model is estimated as:

$ROA_{it} = \beta_0 + \beta_1 PD_{it} + \beta_2 GD_{it} + \beta_3 SIZE_{it} + \beta_4 GRTH_{it} + V_i + W_t + \mu_{it}$ Multiple Linear Regression (for Objective 1 and 2)

$ROA_{it} = \beta_0 + \beta_1 PD_{it} + \beta_2 PD^2 it + \beta_3 GD_{it} + \beta_4 GD^2 it + \beta_5 SIZE_{it} + \beta_6 GRTH_{it} + V_i + W_t + \mu_{it}$ Quadratic Regression (for Objective 3 and 4)

Table1: Descriptive Statistics

	ROA	PD	GD	SIZE	GRT
Mean	.043	.93	.34	18.36	.209
Median	.051	1.00	.00	18.64	.154
Std. Deviation	.193	.251	.477	1.75	.648
Minimum	-1.434	0	0	14.32	-.834
Maximum	.555	1	1	22.92	5.935

Source: Field study (2022)

According to the analysis, the profitability of the non-financial firms in Ghana, measured by return on equity (ROA), shows an average of 4.3 percent and a median of 5.1 percent. This indicates that, on average, these firms have a moderate level of profitability. The variable PD, which measures the level of innovation and diversification in producing multiple product lines, has an average value of 93 percent and a median of 100 percent. This suggests that the listed non-financial firms in Ghana are relatively innovative and have diversified their resources to offer more than one product. Regarding geographical diversification, the variable GD indicates that approximately 34 percent of the listed non-financial firms in Ghana operate in more than one country. This suggests that a portion of these firms have expanded their operations beyond the domestic market. As a percentage change, sales have increased by 21% on average. This suggests that, generally speaking, sales for the listed non-financial enterprises in Ghana have been on the rise over the time under consideration. Finally, in terms of total assets, the average business size is 18.36 as measured by the natural logarithm. So, in terms of overall assets, the listed non-financial companies in Ghana are rather sizable. Thus, the results imply that non-financial enterprises in Ghana are moderately profitable, reasonably inventive, geographically diverse, large, and experiencing positive sales growth. They also offer a diverse range of products.

Reliability test

As a reliability metric, Cronbach's Alpha was used to examine the questionnaire's internal consistency. In order to

Where μ_{it} is the error term

Data analysis, discussions and findings

Results from descriptive statistics, correlational analyses, regression analyses, and commentaries are presented in this section. Statistical Package for the Social Sciences (SPSS), a computer program, was also used to compile the study's results. To pinpoint the precise relationship between the study's variables, the analyses were carried out in an impartial manner.

Descriptive analysis

All of the research variables' descriptive statistics are included in this section. This provided a pattern from lowest to highest values, together with the mean and standard deviation of the variables, which helped identify their relationship to company performance. For the sample of businesses, the table summarises the descriptive statistics of the independent and dependent variables.

calculate Cronbach's Alpha, reliability analysis was carried out using the SPSS program. For reliability assessments of components generated from dichotomous or multi-point scales or questionnaires, the alpha coefficient, which can take values between 0 and 1, is a popular tool. Scales with higher alpha values are more trustworthy. Reliability coefficients of 0.7 and above are deemed satisfactory by Cooper et al. (2003). The table below presents the reliability statistics for the factors that are being investigated.

Table 2: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.738	.766	5

Source: Field study (2022)

Items used to measure the study's constructs exceeded the standard criterion of 0.7 (Pavot et al., 1991) according to the acquired Cronbach's alpha coefficient, as indicated in the table. Consequently, the items used in this investigation were extremely accurate and dependable for additional analysis, as shown by a Cronbach's alpha value of.738, according to this study.

Multicollinearity test

According to Hair Jr et al. (2014), regression parameter estimation may be affected by multicollinearity, which happens

when there is a significant degree of correlation between two or more variables. We looked at the correlation matrix to see if there was multicollinearity. The Variance Inflation Factor (VIF), which measures the real variance as a percentage of the overall variance, was employed in this investigation. There should be no problems with multicollinearity if the VIF is less than 5 (Fox, 2019).

Table 3: Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	PD	.956	1.046
	GD	.927	1.079
	SIZE	.989	1.011
	GRT	.967	1.034

a. Dependent Variable: Return on asset

Source: Field study (2022)

The multicollinearity coefficient result, as presented in the table indicates that the items for measuring the constructs in the study are less than the conventional acceptable (5) (Fox, 2019). Thus, the multicollinearity value of 1.046, 1.079, 1.011 and 1.034 for PD, GD, SIZE and GRT respectively as in the case of this study is an indication that there no problem of multicollinearity among the variables.

Correlation analysis

A statistical method for determining the closeness of a relationship between two variables is correlation analysis. Determining the link between dependent and independent variables is a crucial aspect of statistical modelling. In order to evaluate the correlations among the independent variables and help in the building of a predictive multiple model, a correlation matrix was developed prior to conducting a multiple regression analysis. If there were any problems with multicollinearity, the correlation analysis helped find them. According to Hair Jr et al. (2014), a correlation value of ±1.0 denotes a perfectly positive or negative link, whilst a correlation value of 0 suggests no relationship at all between the dependent and independent variables. One might use a scale from 0 (no association) to 1.0 (perfect relationship) to understand the correlation values. If the correlation coefficient (r) was between ±0.1 and ±0.29, the association was deemed minor. If it was from ±0.3 to ±0.49, it was regarded medium. And if it was ±0.5 or above, it was called strong.

The table below shows the normal Pearson's correlation without the control variables (firm size and growth rate).

Table 4: Correlations statistics

		ROA	PD	GD	SIZE	GRT
Return on asset	Pearson Correlation	1	-.148[*]	.160	.160	.111
	Sig. (2-tailed)		. 013	.104	.102	.259
	N	105	105	105	105	105
PD	Pearson Correlation	-.148[*]	1	.193[*]	.071	.028
	Sig. (2-tailed)	. 013		.048	.473	.778
	N	105	105	105	105	105
GD	Pearson Correlation	.160	.193[*]	1	-.063	.180
	Sig. (2-tailed)	.104	.048		.522	.066
	N	105	105	105	105	105
SIZE	Pearson Correlation	.160	.071	-.063	1	-.016
	Sig. (2-tailed)	.102	.473	.522		.871
	N	105	105	105	105	105
GRT	Pearson Correlation	.111	.028	.180	-.016	1
	Sig. (2-tailed)	.259	.778	.066	.871	
	N	105	105	105	105	105

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Field study (2022)

The table displays the results of the correlation analysis, which illustrate the correlations between the independent variables and the dependent variable, which is return on assets (ROA). There appears to be a modest negative association between ROA and product diversification (PD), as indicated by the negative correlation of -0.148. At the 5% level of significance, the association is statistically significant (p=0.013), meaning it is less than the critical value of 0.05. Thus, it is reasonable to assume that PD and ROA are significantly related, and that companies that diversify their products are more likely to see gains in performance. Conversely, a positive correlation of 0.160 indicates a small but positive association between geographical diversity (GD) and return on assets (ROA). But this association has a p-value of 0.104, which is higher than the significance level of 0.05. Thus, at the 5% level of significance, there is no statistically significant association between GD and ROA. This suggests that geographical diversification is not a major factor in determining a company's success. In a similar vein, there is a small but positive association between firm size (size) and ROA (0.160). But this association has a p-value of 0.102, which is higher than the significance level of 0.05. Hence, at the 5% level of significance, there is no statistically significant link between size and ROA.

Business performance is unaffected by company size. As a last point, a positive correlation of 0.111 indicates a weak but positive association between growth rate (GRT) and return on assets (ROA). With a p-value of 0.259, this link is statistically significant (p > 0.05). Therefore, at the 5% level of significance, there is no statistically significant link between GRT and ROA. Thus, it is evident from the correlation study that product diversification has a considerable impact on company performance (ROA). On the other hand, company performance is unaffected by factors like geographical diversity, company size, or growth pace.

The Pearson's correlation table below shows the correlation the control variables (firm size and growth rate).

Table 5: Correlations

Control Variables			ROA	PD	GD
SIZE & GRT	ROA	Correlation	1.000	-.166	.155
		Significance (2-tailed)	.	.093	.118
		Df	0	101	101
	PD	Correlation	-.166	1.000	.196
		Significance (2-tailed)	.093	.	.047
		Df	101	0	101
	GD	Correlation	.155	.196	1.000
		Significance (2-tailed)	.118	.047	.
		Df	101	101	0

Source: Field study (2022)

Product diversification (PD) and return on assets (ROA) are weakly correlated with one other, with a correlation coefficient of -0.166. At the 5% level of significance, however, the finding is not statistically significant because the p-value for this connection (0.093) is higher than 0.05. Given this lack of correlation, it follows that PD and ROA are not significantly related. In a similar vein, geographical diversity (GD) and return on investment (ROI) have a slight positive connection (0.155), although a p-value of 0.148 is higher than the significance level of 0.05. Because of this, we may conclude that GD and ROA are not significantly related as the correlation between the two variables is not statistically significant. The inverse connection between PD and GD, however, is rather substantial at 0.196. This association has a p-value of 0.047, which is less than the significance level of 0.05, suggesting that the finding is statistically significant at the 5% level. It follows that diversifying one's product offerings while simultaneously expanding into new geographic markets is highly recommended. Return on assets is a performance metric for non-financial companies listed on the Ghana Stock Exchange. The correlation study shows that geographical and product diversification do not significantly affect ROA.

Regression analysis

The study employed a multivariate regression analysis to investigate the correlation between the independent factors and the dependent variable, which is Return on Assets (ROA). To conduct the analysis, SPSS software was utilised. As a statistical tool, multiple regression analysis probes the interplay between a set of independent factors and a dependent variable. Model coefficients, a description of the model, and an analysis of variance (ANOVA) were all part of the analysis. The goal was to find out how strong the links were and how significant they were.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.317[a]	.100	.064	.187108

a. Predictors: (Constant), GRT, SIZE, PD, GD

Source: Field study (2022)

The adjusted R-squared, which represents the proportion of variation in the dependent variable (ROA) explained by the independent variables (product diversification, geographical diversification, firm size, and growth rate), was found to be 0.064. This indicates that 6.4% of the changes in the financial performance of listed non-financial firms in Ghana can be attributed to the factors of interest, namely product diversification, geographical diversification, firm size, and growth rate. Additionally, the correlation coefficient (R) revealed a weak positive relationship of 0.317 between the study variables.

Table 7: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.391	4	.098	2.792	.030[b]
	Residual	3.501	100	.035		
	Total	3.892	104			

a. Dependent Variable: Return on asset

b. Predictors: (Constant), GRT, SIZE, PD, GD

Source: Field study (2022)

Based on the ANOVA statistics presented in the table above, the obtained significance level of 0.030 indicates that the processed data, representing the population parameters, is suitable for drawing conclusions about the population. This is supported by the significance (p-value) being less than 5%. Furthermore, the calculated F-count exceeded the critical value of 2.792, suggesting that both product diversification and geographical diversification significantly influenced the financial performance (ROA) of listed non-financial firms in Ghana. The significance value being less than 0.05 indicates that the model used in the analysis was statistically significant.

Table 8: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.227	.202		-1.126	.263
	PD	-.155	.075	-.201	-2.074	.041
	GD	.079	.040	.195	1.980	.051
	SIZE	.021	.011	.188	1.974	.051
	GRT	.025	.029	.085	.878	.382

a. Dependent Variable: Return on asset

Source: Field study (2022)

Regression Equation: $ROA_{it} = \beta_0 + \beta_1 PD_{it} + \beta_2 GD_{it} + \beta_3 SIZE_{it} + \beta_4 GRTH_{it} + V_i + W_t + \mu_{it}$

Product diversification's regression coefficient is -0.155, according to the table. A t-test with a tcount of -2.074 and an error probability of (p) = 0.041 at the 0.05 significance level indicates that the coefficient is statistically significant. The p-value of 0.041 is lower than the significance level of 0.05, as shown. It follows that the PD variable has a negative and statistically significant effect on the ROA variable when taken alone. Additionally, it is evident from the table that the regional diversification regression coefficient is 0.079, and the t-test for coefficient significance yields a tcount of 1.980, with an error probability of (p) = 0.051, at the 0.05 level of significance. The p-value is bigger than the significance level, which is 0.051, as shown. It follows that the GD variable has a positive effect on the ROA variable, but only to a lesser extent than the other variables. A t-test with a t-count of 1.974 and an error probability of (p) = 0.051 at the significance level of 0.05 shows that the regression coefficient of company size is 0.021, as can be seen in the table. The p-value is bigger than the significance level, which is 0.051, as shown. It follows that the SIZE variable has a positive but insignificant effect on the ROA variable. The table also shows that the regression coefficient for the growth rate of companies is 0.025, and that the t-test for the significance of the coefficient yields a tcount of 0.878, with an error probability of (p) = 0.382, at the 0.05 level of significance. The p-value is 0.382, which is higher than the significance level of 0.05. Therefore, it is reasonable to assume that the GRT variable has a positive but insignificant effect on the ROA variable.

Quadratic Regression

One method for representing the connection between two groups of data is quadratic regression. An analysis of variance (ANOVA), model summary, and quadratic regression were utilised to ascertain the limit to which product and geographic diversification impact a firm's financial performance as measured by Return on Assets (ROA). This was done in order to address objectives three and four of the study.

Table 9: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.294	.086	.069	.187

Source: Field study (2022)

The data in the table show that the corrected R2 value, which is the coefficient of determination, is 0.086. Both the

product diversity and geographical diversification components of the dependent variable ROA account for around 8.6% of the total variance in the variable. Other, non-model factors account for the remaining 91.4% of ROA variance. If this is correct, then product and geographic diversification explain 8.6% of the variance in financial performance among listed non-financial companies. In addition, the research variables show a slight positive link, as indicated by the correlation coefficient (R) of 0.294.

Table 10: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	.336	2	.168	4.824	.010
Residual	3.556	102	.035		
Total	3.892	104			

Source: Field study (2022)

Tabled ANOVA results indicate that a quadratic regression model was employed to investigate the interaction between ROA and the independent variables PD and GD. To determine the overall significance of these variables, the F-test was used. A p-value of 0.010 and an F-statistic (Fcount) of 4.824 were determined using the data in the table. It may be inferred that the combined variables of PD and GD do not significantly impact firm performance (ROA) as the p-value (0.010) is lower than the specified significance level of 0.05.

Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
Case Sequence	-.007	.002	-1.138	-2.979	.004
Case Sequence ** 2	6.8845	.000	1.186	3.104	.002
(Constant)	.170	.056		3.042	.003

Source: Field study (2022)

Quadratic Regression (for Objective 3 and 4)

$$ROA_{it} = \beta_0 + \beta_1 PD_{it} + \beta_2 PD^2 it + \beta_3 GD_{it} + \beta_4 GD^2_{it} + \beta_5 SIZE_{it} + \beta_6 GRTH_{it} + V_i + W_t + \mu_{it}$$

Discussion of findings

Some descriptive statistics were uncovered by the study's data collection process. With a median of 5.1%, the companies' return on equity (ROE) averaged 4.3%. There was a median value of 100% and an average value of 93% for the variable PD, which evaluates product diversification. Similarly, the median value for the geographical diversity (GD) variable was 0% and the average

value was 34%. On top of that, we discovered that average sales growth rate was 21% and that average business size was 18.36% as assessed by the natural logarithm of total assets. A few things came out of the ROA-independent variable correlation investigation. A modest and negative association was indicated by the correlation value of -0.148 between ROA and PD. Similarly, ROA and GD had a slight positive association, as indicated by the correlation value of 0.160. There was a slight but positive link between ROA and company size (0.160). Additionally, ROA and growth rate were positively correlated (0.111), suggesting a tenuous link. Even after accounting for company size and growth rate, the association between PD and ROA remained unsignificant (p-value = 0.093 at a 5% significance level), but it did increase to -0.166. Similarly, at the 5% level of significance, the correlation between GD and ROA became non-significant (p-value = 0.148), and it dropped to 0.155. When controlling for company size and growth rate, this indicates that there is no statistically significant association between these variables and ROA. A somewhat positive and statistically significant association between ROA and the relevant factors, such as product diversification, geographical diversification, firm size, and growth rate, is suggested by the model summary obtained from the regression analysis, which reveals a R value of 0.317.

Conclusion

To sum up, this study looked at how non-financial companies listed on the Ghana stock exchange fared financially after using diversification techniques, particularly geographical and product diversity. The results show that diversifying products has a negative impact on financial success, which means that investing in different product lines might not always pay off. However, expanding into new global markets can contribute to better business competitiveness and value creation. global diversity was found to have a beneficial benefit on financial performance, albeit it was very minor. Consistent with other studies that have investigated the link between company diversity and financial success, although from different angles, these findings provide light on the topic. The effects of diversification strategies on company success have been the subject of mixed results in the literature. In sum, the findings of this study highlight the significance of analysing and comprehending the unique diversification tactics used by businesses. It stresses the need of managers thinking about the specifics of their businesses and marketplaces while weighing the pros and downsides of expanding into new geographies and diversifying their products. Organisations may maximise their financial performance and stay on track with their strategic goals by making educated decisions. The study does have several limitations, which should be considered. Results may not apply outside of the non-financial sector or to other settings because the study only included companies listed on the Ghana stock market. The interaction between diversification techniques and other variables that determine a firm's success needs additional investigation, and other variables that are outside the purview of this study may potentially impact financial performance. Overall, this research adds to what is already known about the relationship between corporate diversity and financial success by illuminating the effects of geographical and product diversification on non-financial businesses in Ghana. Practitioners and decision-makers may benefit greatly from the findings, which help them make well-informed strategic choices that boost company performance and maintain competitive advantage.

References

1. Adner, R., & Zemsky, P. (2016). Diversification and performance: Linking relatedness, market structure, and the decision to diversify. *Strategy Science*, *1*(1), 32–55.

2. Ahmad, N., Salman, A., & Shamsi, A. (2015). Impact of financial leverage on firms' profitability: An investigation from cement sector of Pakistan. *Research Journal of Finance and Accounting*, *6*(7), 1697–2222.

3. Ali, S., Haider Hashmi, S., & Mehmood, T. (2016). Corporate diversification and firm performance: An inverted U-shaped hypothesis. *International Journal of Organizational Leadership*, *5*, 381–398.

4. Anıl, İ., & Yiğit, I. (2011). The relation between diversification strategy and organizational performance: A research on companies registered to the Istanbul Stock Exchange Market. *Procedia-Social and Behavioral Sciences*, *24*, 1494–1509.

5. Arikan, A. M., & Stulz, R. M. (2016). Corporate acquisitions, diversification, and the firm's life cycle. *The Journal of Finance*, *71*(1), 139–194.

6. Barton, S. L. (1988). Diversification strategy and systematic risk: Another look. *Academy of Management Journal*, *31*(1), 166–175.

7. Beaumont, P., Hebert, C., & Lyonnet, V. (2022). Build or buy? Human capital and corporate diversification. *Fisher College of Business Working Paper*, *2019–03*, 18.

8. Berger, P. G., & Ofek, E. (1995). Diversification's effect on firm value. *Journal of Financial Economics*, *37*(1), 39–65.

9. Bosse, D. A., & Phillips, R. A. (2016). Agency theory and bounded self-interest. *Academy of Management Review*, *41*(2), 276–297.

10. Bowen, H. P., Baker, H. K., & Powell, G. E. (2015). Globalization and diversification strategy: A managerial perspective. *Scandinavian Journal of Management*, *31*(1), 25–39.

11. Boz, İ. T., Yiğit, İ., & Anıl, İ. (2013). The relationship between diversification strategy and organizational performance: A research intented for comparing Belgium and Turkey. *Procedia-Social and Behavioral Sciences*, *99*, 997–1006.

12. Caves, R. E. (1971). International corporations: The industrial economics of foreign investment. *Economica*, *38*(149), 1–27.

13. Chen, N., Liang, H.-Y., & Yu, M.-T. (2018). Asset diversification and bank performance: Evidence from three Asian countries with a dual banking system. *Pacific-Basin Finance Journal*, *52*, 40–53.

14. Christensen, H., Mackinnon, A. J., Korten, A. E., Jorm, A. F., Henderson, A. S., Jacomb, P., & Rodgers, B. (1999). An analysis of diversity in the cognitive performance of elderly community dwellers: individual differences in change scores as a function of age. *Psychology and Aging*, *14*(3), 365.

15. Cole, R. A., & Sokolyk, T. (2018). Debt financing, survival, and growth of start-up firms. *Journal of Corporate Finance*, *50*, 609–625.

16. Cooper, D. R., Schindler, P. S., Cooper, D. R., & Schindler, P. S. (2003). *Business research methods*.

17. de la Fuente, G., & Velasco, P. (2020). Capital structure and corporate diversification: is debt a panacea for the diversification discount? *Journal of Banking & Finance*, *111*, 105728.

18. De Roest, K., Ferrari, P., & Knickel, K. (2018). Specialisation and economies of scale or diversification and economies of scope? Assessing different agricultural development pathways. *Journal of Rural Studies*, *59*, 222–231.

19. Dhir, S., & Dhir, S. (2015). Diversification: Literature review and issues. *Strategic Change*, *24*(6), 569–588.

20. Dhir, S., & Mital, A. (2012). Decision-making for mergers and acquisitions: the role of agency issues and behavioral biases. *Strategic Change*, *21*(1-2), 59–69.

21. Di Meo, F., Lara, J. M. G., & Surroca, J. A. (2017). Managerial entrenchment and earnings management. *Journal of Accounting and Public Policy*, *36*(5), 399–414.

22. Dubofsky, P., & Varadarajan, P. (1987). Diversification and measures of performance: Additional empirical evidence. *Academy of Management Journal*, *30*(3), 597–608.

23. Eckardt, R., & Skaggs, B. C. (2018). Service diversification and growth of professional service firms. *Long Range Planning*, *51*(1), 111–126.

24. F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, *26*(2), 106–121.

25. Fox, J. (2019). *Regression diagnostics: An introduction*. Sage publications.

26. Frank, M. Z., Goyal, V. K., & Shen, T. (2020). *The Pecking Order Theory of Capital Structure: Where Do We Stand?*

27. Gaur, A., & Delios, A. (2015). International diversification of emerging market firms: The role of ownership structure and group affiliation. *Management International Review*, *55*, 235–253.

28. Graham, J. R., Lemmon, M. L., & Wolf, J. G. (2002). Does corporate diversification destroy value? *The Journal of Finance*, *57*(2), 695–720.

29. Guping, C., Safdar Sial, M., Wan, P., Badulescu, A., Badulescu, D., & Vianna Brugni, T. (2020). Do board gender diversity and non-executive directors affect CSR Reporting? Insight from agency theory perspective. *Sustainability*, *12*(20), 8597.

30. Hann, R. N., Ogneva, M., & Ozbas, O. (2013). Corporate diversification and the cost of capital. *The Journal of Finance*, *68*(5), 1961–1999.

31. Hassan, R., Marimuthu, M., & Kaur Johl, S. (2015). Diversity, corporate governance and implication on firm financial performance. *Diversity, Corporate Governance and Implication on Firm Financial Performance*, *7*(2), 28–35.

32. Hernández-Trasobares, A., & Galve-Górriz, C. (2020). Effects of family control on the degree and type of diversification: Empirical evidence for business groups. *Thunderbird International Business Review*, *62*(1), 93–105.

33. Hoechle, D., Schmid, M., Walter, I., & Yermack, D. (2012). How much of the diversification discount can be explained by poor corporate governance? *Journal of Financial Economics*, *103*(1), 41–60.

34. Hoskisson, R. E., & Hitt, M. A. (1990). Antecedents and

performance outcomes of diversification: A review and critique of theoretical perspectives. *Journal of Management*, *16*(2), 461–509.

35. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360.

36. Kalayci, C. B., Ertenlice, O., & Akbay, M. A. (2019). A comprehensive review of deterministic models and applications for mean-variance portfolio optimization. *Expert Systems with Applications*, *125*, 345–368.

37. Kang, K. H., Lee, S., & Yang, H. (2011). The effects of product diversification on firm performance and complementarities between products: A study of US casinos. *International Journal of Hospitality Management*, *30*(2), 409–421.

38. Kim, H., Hoskisson, R. E., & Lee, S. (2015). Why strategic factor markets matter:"New" multinationals' geographic diversification and firm profitability. *Strategic Management Journal*, *36*(4), 518–536.

39. Kim, Y. S., & Mathur, I. (2008). The impact of geographic diversification on firm performance. *International Review of Financial Analysis*, *17*(4), 747–766.

40. Koutsoyiannis, A. (1977). Theory of econometrics an introductory. *Exposition of Econometric Method*.

41. Krivokapić, R., Njegomir, V., & Stojić, D. (2017). Effects of corporate diversification on firm performance: evidence from the Serbian insurance industry. *Economic Research-Ekonomska Istraživanja*, *30*(1), 1224–1236.

42. Kuria, T. W. (2016). *The effects of corporate diversification on financial performance of non-financial firms listed at the Nairobi Securities Exchange*. University of Nairobi.

43. Lan, L. L., & Heracleous, L. (2010). Rethinking agency theory: The view from law. *Academy of Management Review*, *35*(2), 294–314.

44. Lang, L. H. P., & Stulz, R. M. (1994). Tobin's q, corporate diversification, and firm performance. *Journal of Political Economy*, *102*(6), 1248–1280.

45. Lashitew, A. A., Ross, M. L., & Werker, E. (2021). What drives successful economic diversification in resource-rich countries? *The World Bank Research Observer*, *36*(2), 164–196.

46. Logubayom, A. I., & Victor, T. A. (2019). Portfolio optimization of some stocks on the Ghana stock exchange using the Markowitz mean-variance approach. *Journal of Financial Risk Management*, *8*(01), 29.

47. Lu, J. W., & Beamish, P. W. (2004). International diversification and firm performance: The S-curve hypothesis. *Academy of Management Journal*, *47*(4), 598–609.

48. Mackey, T. B., Barney, J. B., & Dotson, J. P. (2017). Corporate diversification and the value of individual firms: A Bayesian approach. *Strategic Management Journal*, *38*(2), 322–341.

49. Manyuru, A., Wachira, M., & Amata, E. (2017). *The impact of corporate diversification on firm value in Kenya*.

50. Martinez, L. B., Scherger, V., & Guercio, M. B. (2018). SMEs capital structure: trade-off or pecking order theory: a systematic review. *Journal of Small Business*

and Enterprise Development*.

51. Mathur, I., Singh, M., & Gleason, K. C. (2001). The evidence from Canadian firms on multinational diversification and performance. *The Quarterly Review of Economics and Finance*, *41*(4), 561–578.

52. Mayer, M. C. J., Stadler, C., & Hautz, J. (2015). The relationship between product and international diversification: The role of experience. *Strategic Management Journal*, *36*(10), 1458–1468.

53. Mehmood, K. K., & Hilman, H. (2017). Four decades of academic research on product diversification-performance relationship: analysis and foresight. *Journal for Global Business Advancement*, *10*(1), 43–61.

54. Mehmood, R., Hunjra, A. I., & Chani, M. I. (2019). The impact of corporate diversification and financial structure on firm performance: evidence from South Asian countries. *Journal of Risk and Financial Management*, *12*(1), 49.

55. Modigliani, F., & Miller, M. (1958). The cost of capital, corporation finance and the theory of finance. *American Economic Review*, *48*(3), 291–297.

56. Modigliani, F., & Miller, M. H. (1963). Corporate Income Taxes and the Cost of Capital: A Correction. *American Economic Review*, *53*(3), 433–443. https://doi.org/10.2307/1809167

57. Montgomery, C. A. (1994). Corporate diversification. *Journal of Economic Perspectives*, *8*(3), 163–178.

58. Moradi, A., & Paulet, E. (2019). The firm-specific determinants of capital structure – An empirical analysis of firms before and during the Euro Crisis. *Research in International Business and Finance*, *47*(November 2017), 150–161. https://doi.org/10.1016/j.ribaf.2018.07.007

59. Myers, S. C., & Majluf, N. S. (1984). *Corporate financing and investment decisions when firms have informationthat investors do not have*. National Bureau of Economic Research.

60. Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, *237*, 117727.

61. Nath, P., Nachiappan, S., & Ramanathan, R. (2010). The impact of marketing capability, operations capability and diversification strategy on performance: A resource-based view. *Industrial Marketing Management*, *39*(2), 317–329.

62. Nigam, N. K., & Gupta, C. P. (2020). Negative related diversification, positive related diversification and firm's performance: Measurement and application. *Global Business Review*, 0972150919886415.

63. Nigam, N. K., & Gupta, C. P. (2021). Correlation-based diversification and firm performance: An empirical investigation of India. *Global Business Review*, *22*(2), 442–458.

64. Oino, I., & Ukaegbu, B. (2015). The impact of profitability on capital structure and speed of adjustment: An empirical examination of selected firms in Nigerian Stock Exchange. *Research in International Business and Finance*, *35*, 111–121. https://doi.org/10.1016/j.ribaf.2015.03.004

65. Oladimeji, M. S., & Udosen, I. (2019). The effect of diversification strategy on organizational performance.

Journal of Competitiveness, *11*(4), 120.

66. Olibe, K. O., Rezaee, Z., Flagg, J., & Ott, R. (2019). Corporate diversification, debt maturity structures and firm value: The role of geographic segment data. *The Quarterly Review of Economics and Finance*, *74*, 206–219.

67. Omran, M. A., & Ramdhony, D. (2015). Theoretical perspectives on corporate social responsibility disclosure: a critical review. *International Journal of Accounting and Financial Reporting*, *5*(2), 38–55.

68. Palich, L. E., Cardinal, L. B., & Miller, C. C. (2000). Curvilinearity in the diversification–performance linkage: an examination of over three decades of research. *Strategic Management Journal*, *21*(2), 155–174.

69. Panda, B., & Leepsa, N. M. (2017). Agency theory: Review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, *10*(1), 74–95.

70. Park, K., & Jang, S. S. (2013a). Capital structure, free cash flow, diversification and firm performance: A holistic analysis. *International Journal of Hospitality Management*, *33*, 51–63.

71. Park, K., & Jang, S. S. (2013b). Effects of within-industry diversification and related diversification strategies on firm performance. *International Journal of Hospitality Management*, *34*, 51–60.

72. Pavot, W., Diener, E. D., Colvin, C. R., & Sandvik, E. (1991). Further validation of the Satisfaction with Life Scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, *57*(1), 149–161.

73. Pehrsson, A. (2019). Business relatedness in international diversification: Achievements, gaps, and propositions. *European Business Review*.

74. Raei, R., Tehrani, R., & Farhangzadeh, B. (2015). A study on relationship between diversification strategy, firm performance and risk: Evidence from Tehran Stock Exchange. *International Journal of Business and Social Science*, *6*(1).

75. Ramadhan, M., & Nugroho, B. Y. (2017). The Analysis of Corporate Diversification and Cash Holdings: A Study on Non-Financial Companies Listed in the Indonesian Stock Exchange during the Period of 2006-2015. *1st International Conference on Administrative Science, Policy and Governance Studies (ICAS-PGS 2017) and the 2nd International Conference on Business Administration and Policy (ICBAP 2017)*, 73–81.

76. Ramírez Alesón, M., & Escuer, M. E. (2002). The impact of product diversification strategy on the corporate performance of large Spanish firms. *Spanish Economic Review*, *4*, 119–137.

77. Reguera-Alvarado, N., de Fuentes, P., & Laffarga, J. (2017). Does board gender diversity influence financial performance? Evidence from Spain. *Journal of Business Ethics*, *141*(2), 337–350.

78. Restianti, T., & Agustina, L. (2018). The effect of financial ratios on financial distress conditions in sub industrial sector company. *Accounting Analysis Journal*, *7*(1), 25–33.

79. Sambharya, R. B. (2000). Assessing the construct validity of strategic and SIC-based measures of corporate diversification. *British Journal of Management*, *11*(2), 163–173.

80. Schommer, M., Richter, A., & Karna, A. (2019). Does the diversification–firm performance relationship change over time? A meta-analytical review. *Journal of Management Studies*, *56*(1), 270–298.

81. Singh, D. A., Gaur, A. S., & Schmid, F. P. (2010). Corporate diversification, TMT experience, and performance. *Management International Review*, *50*(1), 35–56.

82. Slahudin, C., Afza, T., & Nazir, M. S. (2008). Diversification and corporate performance: An evaluation of Pakistani firms. *South Asian Journal of Management*, *15*(3), 7–18. http://hdl.handle.net/123456789/514

83. Song, S. (2022). Cultural diversification, human resource-based coordination, and downside risks of multinationality. *Journal of Business Research*, *142*, 562–571.

84. Tallon, P. P., Queiroz, M., Coltman, T., & Sharma, R. (2019). Information technology and the search for organizational agility: A systematic review with future research possibilities. *The Journal of Strategic Information Systems*, *28*(2), 218–237.

85. Tallott, M., & Hilliard, R. (2016). Developing dynamic capabilities for learning and internationalization: A case study of diversification in an SME. *Baltic Journal of Management*.

86. Tanui, P. J., & Serebemuom, B. M. (2021). *Corporate diversification and financial performance of listed firms in Kenya: does firm size matter?*

87. Tien, N. H., & Ngoc, N. M. (2019). Related and Non-related Diversification Strategy of Domestic Business Groups in Vietnam. *International Journal of Advanced Reearch in Engineering and Management*, *5*(7), 12–17.

88. Verbeke, A., & Asmussen, C. G. (2016). Global, local, or regional? The locus of MNE strategies. *Journal of Management Studies*, *53*(6), 1051–1075.

89. Wan, W. P., & Hoskisson, R. E. (2003). Home country environments, corporate diversification strategies, and firm performance. *Academy of Management Journal*, *46*(1), 27–45.

90. Wang, S.-H., Chen, C.-J., Guo, A. R.-S., & Lin, Y.-H. (2020). Strategy, capabilities, and business group performance: The endogenous role of industry diversification. *Management Decision*, *58*(1), 76–97.

91. Yin, X., & Shanley, M. (2008). Industry determinants of the "merger versus alliance" decision. *Academy of Management Review*, *33*(2), 473–491.