European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.6, No.4, 2014

Impact of Diversification on the Firm's Performance: An Evidence from Pakistan

Muzammal Ilyas Sindhu; Ehtasham-Ul-Haq; Sajid Ali
Muhammad Ali Jinnah University

Abstract
This study analyzes the relation of diversification and the performance of Pakistani firms in a sample of 8 diversified and 8 undiversified listed firms of KSE-100 index from year 2004 to 2009. Firm Performance is measured by the Paneling data analysis. The results of the diversified and undiversified firm in regression analysis showed that there is no multi colinarity between the variables. Diversified firm are more risky than the undiversified firms, however, the diversified firms have higher leverage than undiversified strategic firms. So the undiversified firms have the greater returns due to the less proportion of the risk.
Keywords: diversification, performance, firm, risk, leverage, return on asset

Introduction

Diversification is still the most important strategy for many firms around the world for last century. According to Afza, Slahudin and Nazir (2007), it may not be considered as just a trend; rather it is based on logical reasons. These reasons include increased profitability, reduction in risk, increased market share, increased debt capacity, higher growth, extension of business life cycle, and efficient utilization of human and financial resources. Gomes and Livdan (2004) find that the diversification leads to the firm's growth and allows the firm to explore markets. Similarly, Montgomery and Singh (1984) suggested that firms use this strategy in order to minimize the risk. Chaneta (2000) added more to the importance and concluded that when company operates out of profitable & growth related opportunities then the diversification is an attractive strategy. As per Barnes & Brown (2006), the risk, size, leverage and other related factors influence the diversification with the performance of the firm as per studied the UK base companies.

Bowen and Wiersema(2005) suggested that, if strategy research is to continue to offer valuable guide lines on the strategic behavior of firms it seems to have clear understanding of the factors influencing a firm's choice of diversification strategy and how this evolves in response to changing business conditions. Daud, Salamudin and Ahmed (2009) described that diversification will leads accounting measures of performance of the firms. Meanwhile, the market measures of performance are very much sensitive to the level of leverage in the firm. Lloyd and Jr (1994) noticed that the sample of large firms perform better who held well-diversified portfolio. Researchers know the importance; have been engaged in the organized analysis on diversification strategy and their effects on the firm's performance for the long term. Under the heavily recession period, there is need for the companies to use this strategy for profitable concerns.

Does diversification having significant impact on the firm performance or not with respect to Pakistan? In this paper, our main objective of research is to find the impact of diversification strategy on the companies who operates in Pakistan because of market instability in that region, so we are decided to analyze whether diversification strategy will ideal for Pakistani firms or not? Afza, Slahudin and Nazir (2007) also highlight the Market problems in Pakistan and studied the firms with the diversified relationship. Chen and Ho (2000) showed that the effect of diversification is heavily researched in developed countries but there is lack of evidence about the relation of diversification and firm performance in the developing countries. To fill the literature gap of being less research in this area still a big problem to be resolved.

The strategic management literature flourishes making interesting diversification effectiveness, so when we compare the strategy with Pakistan, there is complexity in the existing markets. Qian, Li, Li and Qian (2008) explain that all firms small or large suffer from resource limitations, leads towards the problem of under-diversifying or over-diversifying. Anderson, Bates, Kahloul and Hallara (2010) find that some of the firms do not diversify because firm's managers have fear of job loss. Previous studies on diversification and performance relationship explained mixed findings. Therefore, the objective is to examine the relationship between diversification strategy and firm performance in Pakistan. Tallman and Li (1996) find that performance of MNE increases as the diversity is increases but up to certain level.

Significance:

The study will help the mangers to evaluate their strength for better diversification with respect to Pakistan. Under the highly complex market conditions and instability, firm can perform better by using this strategy. Our work also offers a useful frame work to study the natural boundaries of the firm in the context of Pakistan and give the better understanding to diversify. The market has competitive environment and the diversification will be right option under that kind of conditions. This study formulates an understanding to diversify under different conditions. So the Companies can use all its organizational resources to become better at what it does and competitive skills are likely to emerge as diversified firms.

This study focused on diversification and the effects of varying firm's profitability are to be controlled. This will help the mangers of firms who operate in the complex environment of Pakistan, how they can control the different situation regarding firm's performance and factors that affect them. Most of the firms in Pakistan are in growing stage and eventually faces the complexity in the market so our study will be useful to know what problem have the right solution to get back in the competition. The firm are in different market segment will be adopted the strategy differently, empirical studies of this research is sufficient to provide enough knowledge to analyze the market before they decided to diversify.

Literature Review

1. Independent and Control Variables

Diversification is the means of entering in the other markets. The variables that affect the performance of the firm are firm size, risk and leverage. Now we consider the first one, firm size is always impact on the performance. Similar research done by Chang and Thomas (1989) propose that large firm size could determine the success of diversified strategy. Another factor that has an impact on firm performance is risk. General theory of investment states that high return is associated with high risk. Therefore, there is a need to understand the effect of risk on diversification strategy in Pakistani firms. The next factor that has an impact is the leverage in the firm. According to Abor (2005), short term leverage is associated with high performance as compared to long term leverage.

As per Barnes & Brown (2006), the risk, size, leverage and other related factors influence the diversification with the performance of the firm as per studied the UK base companies. These controlled variables will help the firms to decide whether to diversify or not? If they decided to diversify at what level? Therefore, this study would like to investigate the effect of leverage on firms that implement diversification with respect to Pakistan. The first variable defined is the firm size.

a. Firm Size

Mayer and Whittington (2003) stated that both firm size and leverage are negatively related to the performance. However, Gassenheimer and Keep (1995), Aron (1988) found that the firm size is positively related to the performance as firm gets economies of scale more rapidly and having ROA efficiently in manageable position to utilize. Lang , Ofek and Stulz (1995) & Ahn, Dnis and Denis (2005) explained that when we talk about the Large diversified firms capital structure and stated that leverage doesn't matter because the large firm is successful extent to future growth. The leverage having negative relation for the Large firms who do not recognize the market opportunities for growth and result will be poor performance, (Aivazian, Ge & Qiu, 2005). Winker (1999) fined that Firm size has a positive impact on profitability and reduction in risk as well.

Barnes & Brown (2006) suggesting that the size of the firms matter a lot and having relation with the level of investment. Miller and Pras (1980) find that firm size is important for the profit under the global diversification because of financial planning and utilizing of resources as well. Lim, Das and Das (2009) find during the study of Asian Financial crises (1997-1998) that the small-medium sized firm(SME,s) affected their capital structure when they diversified their product, however the large firms do not face these kind of issues due to their large size, allocation of resources and proper managerial decision. The size of the firms is related to the risk and having impact on the overall performance of diversified firms. If the size of the firm is large than it will use its slack resources more efficiently, (Merino & Rodriguez, 1997).

The relationship of firm size towards the risk is criticized in a manner of Multinational Enterprises (MNE, s); Qian, Khoury, Peng and Qian (2010) founds about U.S firms that the Multinational Enterprises (MNE,s) having greater in size of business and negative relationship with performance when they diversify at higher level geographically and ROA sustainably declined. On other hand MNE, s having positive relationship when they moderately diversify. Furthermore, Hokisson, Hitt, Johnson and Moesel (1993) explained that Diversification has a very strong relationship with the performance (ROA, ROE & ROS). Lloyd and Jr (1994) find that large size firms held with strong portfolio will positively related to the performance on risk-return basis. Palich, Cardinal and Miller (2000) further added that Diversification is depending on accounting and market performance outcomes. The following definition is used to measure firm size:

Market Value = *Share price x number of shares outstanding (MV)*

Firm Size = *Ln (MV)*

H 1: Firm Size is positively related to the performance of Diversified firm.

b. Risk

Menon and Subrmanian (2008) & Marlin, Lamont and Gieger (2004) analyzed the diversification with the risk factors, they argued that the diversification is correlated to the risk factors and it will reviewed by the managers to invest in different projects. They have to identify the level of the risk for efficient use the resources. Glory and Baker (2002) also support the relationship of Risk and financial leverage. They argued that access to the financial leverage is important while managing the risk factors. Palmer and Wiseman (1999) find that Managerial risk taking and income stream uncertainty will cause the organizational risk. Furthermore the organizational risk is more completely reflects the complexity in business. Doukas and Kan (2006) explained that globally diversified firms are subject to low risky due to portfolio management.

Eisenmann (2002) also added to the Managerial risk linkage with organizational risk and explained that the risk taking and risk avoidance behavior was dependent on the ownership structure. They have to analyze whether to diversify their assets or not under increasing perishable business environment. The theories of Carrieri, Eurrenza and Sarkissian (2004) explain the link between the risk and performance of the firms through diversification strategy. Bettis and Mahajan (1985) find that Diversified (portfolio) will manage to reduced risk and increase the performance. Diversification (Portfolio) firms have the advantage of reduction of risk as described by the Bettis and Hall (1982). This theory is also justified by the Abumustafa (2007), as per explanation, Diversification is the best mechanisms for reducing risk to target level among the securities and in firm assets.

The diversification at the higher level will more efficient from the initial investment in that project due to the greater knowledge about increasing leverage assets and managing the risk factors. On the other hand, moderate level of diversification is not beneficial due to the risk sensitivity associated with investments,(Matusik & Fitza, 2012). The portfolio of efficient resources will make the smooth actions of the firms towards the performance and made the firm to get return from investments under diversification of available resources, as the firm gets efficiency in allocating resources, results surly be decreasing in risk factors, (Lehmann & Modest, 2005). Chateauneuf and Lakhnati (2007) described that Diversification (Portfolio) will be important for risky assets. Therefore, Kor and Leblebici (2005) & Hamilton and Shergill (1993) finds that managing resources will lead to higher performance under diversification. Reducing risk and achieving high firm size will support the firm achieve its goal.

Ruefli, Collins & Lacugna (1999) Suggest product diversification and systematic risk of pricing are linked to the Monopolistic market power. The high market power has positive relationship with monetary value of risk, based on the price base portfolio, (Seo, 2001). Most of the time Investors measure risk incorrectly if they exclusively focused on distribution of outcomes of their investment horizons. Approach to risk measurement ignores intolerable losses that might occur throughout an investment period, so investor have to use the techniques best related to project of their investment, (Kritzman and Rich, 2002). Gary (2005) explained that Managerial decisions to utilize the slack resources are important for firm's performance. However, Miller and Pras (1980) & Hill and Hansen (1991) find that corporate diversification is useful to reduce the business risk. Thus, the following variable has been used as a proxy to measure risk.

Risk = Standard deviation of ROA

H 2: Risk is negatively related to the performance of Diversified firm (Portfolio).

c. Leverage

Grossman (2003) & Bowen and Wiersema (2005) further explain that under the foreign competition, core business firms can leveraging the resources to diversify efficiently, similarly when they diversified their resources, there will decreasing in foreign competition. This will eliminate factors that creating risk related to business by other business. Qian, Khoury, Peng and Qian (2010) explain the relation of leverage and risk association by explaining the foreign competition. When Multinational Enterprises (MNE, s) adopted geographic diversification, then the foreign competition for them are highly intensive and performance is relatively low as compared to regional diversification. In the geographic diversification, leverage is decreasing as the firm performance affected while regional diversification will increase the firm leverage as perform better regionally.

The diversified firms will easily manage their risk related to portfolio but this will destroy the shareholders wealth leads to affect the leverage of the firm, (Chen, Guo & Tay, 2010). The higher the leverage of the firm, the higher ratio of their asset. This will interconnect with their asset management during the uncertain periods of financial marketability, (Devereux & Yetman, 2010). Molina (2006) argued that the leverage negatively effect the debt rating of the firm and then into an increase in default probabilities. Although the higher leverage will offset the fundamental risk of the firm by involving in the hedging activities. Lang, Ofek and Stulz (1995) added to this theory that high leverage might not been able the firm to take advantage of the growth opportunities. So the leverage is negatively related to the firm's growth opportunities. Denis, Denis and Yost (2002) explained the Global diversification strategy which creates the shareholder value, which actually due to the firms leverage. In other words, performance is related to diversification strategy and increasing the leverage of the firm as the size of the firm increases.

Critically Doukas and Kan (2006) argued that Global Diversification harms the firm value and shareholders wealth because their costs outweigh the benefits. Global diversification is adopted by the firm who has greater size in term of capital and economies of scale; so result will be loss in the shareholder wealth, although risk is minimized but linked towards the leverage of firm. There is relationship of Leverage buyouts with size of the firm. So the leverage buyouts will tend to increase the unrelated diversification in the Private firms (Wiersema & Liebeskind, 1995). Thus, the following proxy has been used:

Debt to Equity Ratio = Standard deviation of ROA / (Long-term debt + Market value of equity)

European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.6, No.4, 2014

H 3 : Leverage is positively related to the performance of Diversified firm

2. Performance Variables

The regression estimation technique is used to find the relationship between diversification and performance. This explains which factors have an impact on firm performance in the Pakistan context. Thus, it provides some evidence with reference to factors influencing the Pakistani firms. The performance measurement used in this study is accounting based return on assets (ROA).

a. Accounting Measure

Most literatures have employed accounting measure of performance by using return on asset (ROA) as a proxy. According to Bettis (1982), this ratio is under management control and commonly used as performance measure for the firms. Therefore, this study used ROA to measure performance, defined as follows,

$$\text{Return on Assets (ROA)} = \frac{\text{Net Income after taxes}}{\text{Total Assets}}$$

3. Methodology

This study uses panel data estimation method. Data was taken from the KSE-100 Index listed companies. 20 companies were diversified and 20 companies were undiversified taken for the research of this study.

a. Method of Estimation

The study investigates the characteristics of firms using descriptive statistics and also Pearson correlation to differentiate between diversified and undiversified strategies. The following estimation is then conducted to understand the relationship between dependent and independent variables:

Diversified firms $Y_{it}= \alpha+ \beta_1 \text{Size}_{it} + \beta_2 \text{Lev}_{it} + \beta_3 \text{Risk}_{it} + e_{it}$ ...Eq 1

Undiversified firms $Y= \alpha+ \beta_1 \text{Size}_{it} + \beta_2 \text{Lev}_{it} + \beta_3 \text{Risk}_{it} + e_{it}$ ...Eq 2

4. Estimation Results

The statistics for the whole sample and the diversified & undiversified firms taken. This shows the impact of diversification strategy on performance. Table 1 shows the following results. The mean of return on asset (ROA), leverage (LEV), size (SIZE) and risk (SROA) are **4.45**, 22.86
, 15.93 and 5.77 respectively. In our research, measure of performance (return on asset) has been used to find the relationship between diversification and performance as suggested by Dubofsky and Varadarajan (1987).

Table 1: Mean and Standard Deviation

Diversification strategy: Firm characteristics and diversification measures

Descriptive Analysis

	ROA	LFS	RISK	LEV
Mean	4.44218	22.86288	5.77756	15.93185
Median	0.312	23.20532	4.775917	13.575
Maximum	4.0101	25.12545	17.5079	68.8
Minimum	0.0542	19.11662	0.306413	-21.75
Std. Dev.	0.53238	1.495263	3.868872	15.92791
Skewness	4.56411	-0.817539	1.041413	0.932224
Kurtosis	27.97035	2.805061	3.382174	4.000937
Jarque-Bera	2650.661	10.16806	16.81582	16.79265
Probability	0	0.006195	0.000223	0.000226
Sum	39.9796	2057.659	519.9804	1433.867
Sum Sq. Dev.	25.2251	198.9873	1332.167	22579.14
Observations	90	90	90	90

On the next step, one sample t-test for diversification strategy is presented in Table 2. In the one sample t-test, there is a comparison of the mean of one sample to a fixed estimate in which the result shows the used 0 as comparison of mean. Variables that produce result far from 0 could be stated as significant for our research.

Table 2: One Sample T Test; T-test = 0

Variables	Undiversified firms	Diversified
	(N=8)	(N=8)
	Mean	Mean
	(Differences)	(Differences)
ROA	5.0748	2.8482
	(0.000)***	(0.000) ***
Leverage	55.3051	69.2974
	(0.000)***	(0.000) ***
Size	12.4261	12.3926
	(0.000)***	(0.000) ***
Risk	3.9480	4.8031
	(0.000)***	(0.000) ***

*** Significant at 1 percent level
** Significant at 5 percent level
* Significant at 10 percent level

As we analyze the results, the undiversified firms have lower risk of 0.39480 and the diversified firms have higher risk of 4.8301. This is because of the investment that firms made and there is higher the risk of it. As we compare the size of the Diversified and undiversified firms, there is no such difference in it. There is Leverage of Undiversified and diversified shows the 55.3051 and 69.2974 respectively. This shows that diversified firms have higher leverage than the undiversified firm.

Table 3: Pearson Correlation of diversification measures and independent variables

	ROA	LEV	SIZE	SROA	SD
ROA					
LEV	-0.018				
	(0.738)				
SIZE	0.291***	-0.108***			
	(0.000)	(0.043)			
RISK	-0.534***	-0.001	-0.191***		
	(0.000)	(0.990)	(0.000)		
SD	0.118**	-0.035	0.015	-0.078	
	(0.027)	(0.516)	(0.780)	(0.143)	

*** Correlation is significant at the 0.01 level (2-tailed).
** Correlation is significant at the 0.05 level (2-tailed)
* Correlation is significant at the 0.10 level (2-tailed).

In the Table 3, there is a Correlation of the Performance measure and the independent variables are tested for the evaluation of the results. The highest value of Correlation is the 0.534 but the values should be higher than 0.80. This shows that multicolinearity does not exist between the variables.

Table 4: Comparison of diversified and undiversified firms

Variables	Undiversified firms	Diversified	Whole sample
	(N=35)	(N=35)	(N=35)
	Mean	Mean	Mean (p-value)
ROA	5.0748	2.8482	2.22657
			(0.006)***
Leverage	55.3051	69.2974	-13.99234
			(0.526)
Size	12.4261	12.3926	0.03343
			(0.772)
Risk	3.9480	4.8031	-0.85514
			(0.037)***

*** Significant at 1 percent level
** Significant at 5 percent level
* Significant at 10 percent level

In Table 4, there is explanation of main differences between diversified and undiversified firms. The mean values for undiversified firms are better than diversified firms. Therefore, this thing shows that undiversified firms are creating more value to shareholders as compared to diversified strategy. At the same time, accounting measure of performance, which is the ROA for undiversified firms are higher than diversified firms.

Leverage shows positive relationship with market measure of performance. The finding indicates that leverage has been used to improve firm performance.

Table 5: Regression Coefficients

	Diversified	Undiversified	Overall
	ROA	ROA	ROA
Leverage	0.0023	0.0007	0.0003
	(0.0025)	(0.0038)	(0.002)
Size	2.2378***	1.5235***	1.6603***
	(0.5331)	(0.5485)	(0.3821)
Risk	-0.4377***	-1.0202***	-0.8467***
	(0.1352)	(0.0965)	(0.0779)
SD			1.4508***
			(0.8343)
N	20	20	40

Figures in parentheses denote "Standard Error" values of the regression coefficients.
*** Significant at 1 percent level
** Significant at 5 percent level
* Significant at 10 percent level

According to the results of Regression Coefficient, the size is significant to explain the performance for both of diversified and undiversified firms. This fact suggests that size has a positive effect on firms' performance whereby large firms has an ability to effectively use their resources to increase performance. As for risk effect on performance, one surprising finding was that risk and performance is negatively correlated.

The last factor considered is diversification strategy. The results shown from our data describe that, diversification strategy appears to be positively correlated with performance only for accounting measure, so the firms used to analyze the market conditions based on their resources to take the decision to diversify.

Conclusion

The study shows the diversification is adopted to be beneficial strategy for the firms who use their resources efficiently. The findings show that the accounting measure of performance of the diversified firm is significant. Using profitability as the measure of performance, the return on asset of diversified firm is less as compared to the undiversified firm. This is because of the more investment the diversified firm made and there is slow return on that particular investment. This research will be beneficial for the industry of Pakistan, who is suffering from the less profitability and to improve their performance by using the diversification strategy. The efficient use of the strategy and using the slack resources matters when they have to apply the strategy. The companies who diversified showed greater performance for the long term. In summary undiversified firm gain high returns due to the lower risk.

Limitation

The limitation of the research is that there are time constraints and that why we use less data and duration for our study. In this area of research, there should be using more variable but time is the issue for our research.

Future Research Directions - Pakistan

Since the study is with the reference to Pakistan, future research should use large sample as well as to include additional variables like "inflation" etc, so we have better understanding the relationship between diversification and performance. In this area of research, there should be using more variable which will link towards the inflation, stock Exchange and market measures as well.

Reference

Abor, J. (2005). The Effect of Capital Structure on Profitability: An Empirical Analysis of Listed Firms in Ghana, *The Journal of Risk Finance*, 6(5). 9-37.

Afza, T., Salhudin, C., & Nazir, M. S. (2007). Diversification and Corporate Performance : An Evaluation of Pakistani Firms, *South Asian Journal of Management*, 15(3), 7-18.

Anderson, R. C., Bates, T. W., Bizjak, M. J., & Lemmon, M. L. (2000). Corporate Governance and Firm Diversification, *Financial Management*, 29(1), 5-22.

Abumustafa, N.I. (2007). Risk Diversification in Emerging Economies. *Risk Management Journal*, *9*, 36-43.

Ahn, S., Dnis, D. J., & Denis, D. K. (2005). Leverage and investment in diversified firms. *Journal of Financial Economics*, *79*, 317-337.

Aviation, V. A., Ge, Y., & Qiu, J. (2005). The impact of leverage on firm investment: Canadian evidence. *Journal of Corporate Finance*, *11*, 277-291.

Aron, D. J. (1988). Ability, moral hazard, firm size, and diversification. *Journal of Economics, 19(01)*, 72-87.

Barnes, E., & Brown, G. H. (2006). The Diversification Puzzle: Revisiting the Value Impact of Diversification for UK Firms. *Journal of Business Finance & Accounting*, *33(9 &10)*, 1508 – 1534.

Bowen, H. P., & Wiersema, M. F. (2005). Foreign-Based Competition and Corporate Diversification Strategy. *Strategic Management Journal, 26(12)*, 1153-1171.

Bettis, R. A., & Hall, W.K. (1982). Diversification Strategy, Accounting Determinant Risk, and Accounting Determined Return. *The Academy of Management Journal, 25(02)*, 254-264.

Bettis, R. A., & Mahajan, V. (1985). Risk/Return Performance of Diversified Firms. *Management Sciences, 31(7)*, 785-799.

Chaneta,. I. (2000). Corporate Diversification Strategies. *Journal of Comprehensive Research*, 6, 30-38.

Chari, M.D.R., Devaraj, S., & David, P (2007). International diversification and firm performance: Role of information technology investments. *Journal of World Business*, 42, 184–197.

Chen & Ho. (2000).Corporate diversification, ownership structure, and firm value. *International Review of Financial Analysis*, 9, 315-326.

Chen, C. R., Guo, W., & Tay, N. S. P. (2010). Are Member Firms of Corporate Groups Less Risky?.*Journal of Financial Management.* 59-82.

Chakrabarti, A., Singh, K., & Mahmood, I. (2007). Diversification and Performance: Evidence East Asian Firms. *Strategic Management Journal, 28*, 101-120.

Carrieri, F., Eurrenza, V., & Sarkissian, S. (2004). Industry Risk and Market Integration. *Management Science, 50(02)*, 207-221.

Chateauneuf, A. & Lakhnati, G. (2007). From sure to strong diversification. *Economic Theory, 32(3)*, 511-522.

Daud, W. M. N. W., Salamudin, N. B., & Ahmad, I. B. (2009). Corporate Diversification and Performance, *IBEJ*, 2(1), 1-15.

Dubofsky, P., & Varadarajan, P. R. (1987). Diversification and Measures of Performance: Additional Empirical Evidence. *Academy of Management Journal*, 30 (3), 597-608.

Demsetz, R. S., & Strahan, P. E. (1997). Diversification, Size, and Risk at Bank Holding Companies. *Journal of Money, Credit and Banking*, 29(3), 300-313.

Devereux, M. B., & Yetman, J. (2010). Leverage Constraints and the International Transmission of Shocks. *Journal of Money, Credit and Banking, 42(6)*, 71-105.

Denis, D. J., Denis, D. k., & Yost, K. (2002). Global Diversification, Industrial Diversification, and Firm value. *The Journal of Finance, LVII (05)*, 1951-1979.

Doukas, J. A., & Kan, O. B. (2006). Does global diversification destroy firm value?. *Journal of International Business Studies*, *37*, 352-371.

Eisenmann, T. R. (2002). The Effect of CEO Equity Ownership and Firm Diversification on Risk Taking. *Strategic Management Journal, 23,* 513-534.

Gomes, J., & Livdan, D. (2004). Optimal Diversification: Reconciling Theory and Evidence. *The Journal of Finance,* 59, 507-535.

Gloy, B.A., & Baker, T.G. (2002). The Importance of Financial Leverage and Risk Aversion in Risk-Management Strategy Selection. *American Journal of Agricultural Economics, 84(02),* 1130-1143.

Gringer, J. M., Tallman, S., & Olsen, D. M. (2000). Product and International Diversification among Japanese Multinational Firms. *Strategic Management Journal, 21(01),* 51-80.

Gassenheimer, J. B., & Keep, W.W. (1995). The Effect of diversification on Manufacturers, Wholesalers, And Retailors. *Journal of Managerial Issues, 7(01),* 13-26.

Gary, M. S. (2005). Implementation Strategy and Performance in Diversification. *Strategic Management Journal, 26*, 643-664.

Grossmann, V. (2003). Firm Size and Diversification: Asymmetric Multiproduct Firms under Cournot Competition. *University of Zurich,14,* 1-34.

Hoskisson, R. E., Hitt, M. A., & Hill, C. W. L. (1991). Managerial Risk Taking in Diversified Firms: An Evolutionary Perspective. *Organization Science, 2(3),* 296-314.

Hokisson, R. E., Hitt, M. A., Johnson, R. A., & Moesel, D. D. (1993). Construct Validity of an object (Entropy) Categorical Measure of Diversification Strategy. *Strategic Management Journal, 14(03),* 215-235.

Hill, C. W. L., & Hansen, G. S. (1991). A Longitudinal Study of the Cause and Consequences of Changes in Diversification in the U.S. Pharmaceutical Industry 1977-1986. *Strategic Management Journal, 12(03),* 187-199.

Hamilton, R. T., & Shergill, G. S. (1993). Extent of Diversification and Company Performance: the New Zealand Evidence. *Managerial and Decision Economics,14,* 47-52.

Kahloul, I., & Hallara, S. (2010). The Impact of Diversification on Firm Performance and Risk: 2An Empirical Evidence. *International Research Journal of Finance and Economics*, 35, 150-162.

Kor, Y. Y., & Leblebici, H. (2005). How Do Interdependencies among Human-Capital Deployed, Development, and Diversification Strategies Affect Firms Financial Performance?. *Strategic Management Journal, 26(10),* 967-985.

Kritzman, M., & Rich, D. (2002). The Measurement of Risk. *Financial Analyst Journal, 58(3),* 91-99.

Lloyd, W. P., & Jr, J. S. J. (1994). Firm-Diversification Effects on Performance as Measured by Tobin's *q*, *Managerial and Decision Economics,* 15, 259-266.

Lehmann, B. N., & Modest, D.M. (2005). Diversification and Optimal Construction of Basic Portfolios. *Management Sciences,15(4),* 581 – 598.

Lim, E. N. K., Das, S. S., & Das, A. (2009). Diversification Strategy, Capital Structure and the Asian Financial Crises (1997 -1998): Evidence from Singapore Firms. *Strategic Management Journal, 30,* 577-594.

Lang, L., Ofek, E., & Stulz, R. M. (1995). Leverage, investment and firm growth. *Journal of Financial Economics, 40,* 3-29.

Montegomery, C.A., & Singh, H. (1984). Diversification Strategy and Systematic Risk. *Journal of Strategic Management,* 5, 181 – 191.

Mayer, M., & Whittinton, R. (2003). Diversification in Context: A Cross-National and Cross-Temporal Extension. *Strategic Management Journal, 24*, 773-781.

Mansi, S. A., & Reeb, D. M. (2002). Corporate Diversification: What Gets Discounted?. *The Journal of Finance,* 57(5), 2167- 2183.

Marinelli, F. (2011). The Relationship Between Diversification And Firm's Performance: Is there really a casual Relationship?. *IESE Business School-University of Navarra,* 907, 1-32.

Michel, A., Shaked, I. (1984). Does Business Diversification Affect Performance?. *Financial Management,* 13(4), 18-25.

Merino, F., & Rodriguez, D.R. (1997). A Consistent Analysis of Diversification Decisions with Non-Observable Firms Effect. *Strategic Management Journal, 18(09),* 733 – 743.

Menom, N., & Subramanian, N. (2007). Learning, diversification and the Nature of the Risk. *Economic Theory, 35*, 117-145.

Marlin, D., Lamont, B. T., & Geiger, S.W. (2004). Diversification Strategy and Top Management Team Fit. *Journal of Managerial Issues. 16(03),* 361-381.

Matusik, S. F., & Fitza, M. A. (2012). Diversification in the Venture Capital Industry: Leveraging Knowledge Under Uncertainty. *Strategic Management Journal, 33,* 407 - 426.

Molina, C. A. (2005). Are Firm Underleveraged? An Examination of the effect of Leverage on Default Probabilities. *The Journal of Finance, 3,* 1427-1459.

Miller, J. C., & Pras, B. (1980). The Effects of Multinational and Export Diversification on the Profit stability of U. S. Corporations. *Southern Economic Journal, 46(3),* 792-805.

Pandya, A.M., & Rao, N.V. (1998). Diversification and Firm Performance: An Empirical Evaluation, *Journal of Financial and Empirical Decisions*, 11, 67-81.

Palmer, T. B., & Wiseman, R. M. (1999). Decoupling Risk from Income Stream Uncertainty: A Holistic Model of Risk. *Strategic Management Journal, 20,* 1037-1062.

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*, 155-174.

Qian, G., Li, L., Li, J., & Qian, Z. (2008). Regional Diversification and Firm Performance, *Journal of International Business Studies*, 39(02), 197-214.

Qian, G., Khoury, T. A., Peng, M. W., & Qian, Z. (2010). The Performance Implications of Intra-And-Inter-Regional Geographic Diversification. *Strategic Management Journal, 31,* 1018- 1030.

Rumelt, R. P. (1982). Diversification Strategy and Profitability, *Strategic Management Journal*, 3, 359-369.

Ruefli, T. W., Collins, J. M., & Lacugna, J. R. (1999). Risk Measures in Strategic Management Research: Auld Lang Syne?. *Strategic Management Journal, 20,* 167-194.

Seo, J. J. Y.(2001). Demand Diversification under Uncertainty. *Asian Economic Journal, 15(4),* 425-450.

Tallman, S., & Li, J. (1996). Effects of Diversity and Product Diversity on the Performance of Multinational Firms. *The Academy of Management Journal, 39(01),* 179-196.

Winker, P. (1999). Causes and Effects of Financing Constraints at the Firm Level. *Small Business Economics, 12(02),* 169-181.

Wiersema, M. F., & Liebeskind, J. P. (1995). The Effect of Leverage Buyouts on Corporate Growth and Diversification in Large Firms. *Strategic Management Journal, 16(06),* 447-460.

Zaninotto, E., & Tran, H. T. (2005). Product Diversification, Corporate Entrepreneurship, and Firm Performance: An Evidence Study of Vietnamese Firms, *journal of Enterprising Culture,* 14(1), 1-22.