International Journal of Finance, Accounting and Economics Studies, 3(1), 2022, 73-83.
Print ISSN: 2251-645X Online ISSN: 2383-2517

Islamic Azad University
Science and Research Branch
Faculty of Management and Economics

International Journal of Finance, Accounting and Economics Studies
Journal homepage: https://ijfaes.srbiau.ac.ir

The Impact of Agility on the Probability of Bankruptcy

Arezoo Aghaei Chadegani [1]
Vahid Bekhradi Nasab[2*]

[1]*Department of Accounting, Najafabad Branch, Islamic Azad University, Najafabad, Iran,arezooaghaie2001@yahoo.com*
[2]*Department of Accounting, Najafabad Branch, Islamic Azad University, Najafabad, Iran, vahid.bekhradinasab@gmail.com*

Article History
Received Date: 28 May 2021
Revised Date: 10 July 2021
Accepted Date: 25 September 2021
Available Online:19 April 2022

JEL Classification:

Keyword:
Agility
Bankruptcy
Leadership Strategy
Game Theory

Abstract
Agility is an unknown phenomenon that is less empirically investigated in previous researches. Agility means reducing the workforce by management, which can be considered a cost leadership strategy. Human resource changes in the company, lower staff costs, and personnel salary are the agility results, which is a competitive advantage for the company in times of crisis. According to game theory, managers' adopting a strategy of cost leadership reduces the risk of bankruptcy. The purpose of this study is to investigate the effect of agility on the probability of bankruptcy. This research population is all companies listed on the Tehran Stock Exchange from 2011 to 2016, and the sample size based on the systematic elimination method is 175 companies. The multiple regression analysis is used to test the research hypothesis. The study results show that managers, by adopting cost leadership strategies and agility policies, significantly reduce bankruptcy likelihood.

*.Corresponding Author: vahid.bekhradinasab@gmail.com

1. Introduction

Zorn et al. (2017), Guillamon et al. (2017), Block (2017), Gensler (2016), and Block (2009) argue that firms need to offset the gaps by reducing the projects and costs to survive and continue to operate. In other words, when sales and, as a result, corporate profits are reduced, hiring reduction and cost reduction usually are the first managerial actions (Chernikoff and Howell, 2008; Pollack, 2008; Uchitelle, 2008). For example, when Xerox Crop and Merck & Co faced a crisis (financial crises 2008-2009), they reduced their labor by 5% and 12%, respectively, to get rid of the crisis (Block and Koellinger, 2009). Also, Go Pro company reduced its workforce by 15% to expand its core activities (Wells, 2016). After agility, these companies experienced a decline in bankruptcy.

In Iran, if productivity in the workforce is not targeted, 400 billion dollars of wealth will be lost. In fact, if the company can manage the agility issue and make it possible for almost 80% of the workforce, per capita income will rise from $ 10,000 to $ 50,000. Such news is expected in the commercial press and stock markets, and agility has become part of organizations' going concerns (Jung, 2015). Thus, job cuts provide useful strategies for companies. Empirical researches such as Capelle-Blanchard and Couderc (2007), Gerpott (2007), Raj and Frosyth (1999), Ursel and Armstrong-Stassen (1995), Worrel et al. (1991) argue that massive job cuts lead to increased profits. Other empirical researches such as Flanagan and O'Shaughnessy (2005), Love and Kraatz (2007), and Zyglidopoulos (2004) conclude that agility can have a positive impact on company reputation and firmness, with particular pressure on corporate bankruptcy. (Karake, 2004). George (2014) and Lewin et al. (2010) found that organizations are doing their best to alleviate staff and rebuild the company's structures to create a more efficient position regardless of companies' financial position.

Researchers argue that agility is accompanied by an effective strategy with benefits such as improved performance and increased sales that ultimately prevent the occurrence of bankruptcy (De Meuse and Dai, 2013; Love and Nohria, 2005; Yu and Park, 2006). In contrast, some researchers believe in the negative consequences of agility for employees, and the results in these studies show that productivity and employee satisfaction are reduced after agility (Goesaert et al., 2015; Guthrie and Datta, 2008; Lewin et al., 2010). Moreover, employees can experience a variety of adverse effects such as reduced morale, insecurity in work, reduced creativity, and increased stress (Fisher and White, 2000; Niehoff et al. 2001; Probst, 2003; Probst et al., 2007; Rusaw; 2004; Shaw et al., 2005). The contradiction between these results suggests that, despite the negative impact of agility on administrative staff, it can improve bankruptcy, and so far, this question remains unanswered. Therefore, due to the importance of this issue for corporate executives and the problem of bankruptcy, the purpose of this study is to investigate the role of agility in the probability of bankruptcy. While both of these phenomena have been studied extensively, no studies have looked at agility's effect on bankruptcy probability. In the following, the conceptual framework, research hypothesis, research model and variables, research method, results, and finally, the discussion and conclusion are presented.

2. Literature Review and Hypothesis Development

Some of the events in the real world are uncertain. One of the issues that have qualitative parameters is bankruptcy and financial distress. In this case, the market may face different reactions from actors

(officials, corporate executives, and organizations). The best mode under conditions of uncertainty is to change players' behavior in the form of a game. In this game, it is suggested that managers find that their company is in bad luck, use several strategies to reduce the levels of costs to an acceptable level or a cut off point. Thus, they can run out of dire financial conditions. The policy that may help the manager to survive the company is agility. First, bankruptcy will be described in the following section, and then agility will be explained.

2.1. Bankruptcy

According to Habib et al. (2013), companies are bankrupt when they stop their operations due to losses and debts. Bankruptcy may occur in a small retail shop that cannot meet rental obligations and therefore closed or in a large manufacturing company due to a lack of favorable liquidity and continuous annual losses. Recent evidence suggests that the market value of firms subject to bankruptcy is significantly reduced. Therefore, in addition to management and employees, shareholders, investors, and creditors are severely affected by bankruptcy because they may lose their capital. In contrast, management and employees may lose their jobs. Therefore, the risk of a significant drop in the company's market value may concern management (Boratynska, 2016). Accountants need to understand the causes of the bankruptcy because they are the ones who can inform management before they go bankrupt and provide preventive solutions (Newton, 1988). Thorburn (2000) and Brice et al. (2006) argue that bankruptcy is affected by various economic climate aspects. For example, organizational and inherent changes in agility will reduce the likelihood of bankruptcy. In particular, by changing the normal flow of company activity due to agility, the probability of bankruptcy decreases, and with decreasing probability of bankruptcy, organizational procedures and productivity are increased. While the pressure on the remaining employees in the company increases, it saves costs. The bankrupt company that spent a long time in bankruptcy procedure will have more difficulty maintaining its customers and employees, attracting more capital, and investing in the required capital (Altman et al., 2008; Boratinska, 2016). Therefore, the cost of bankruptcy and financial distress for companies that use agility will be significantly reduced.

2.2. Agility

Users of accounting information continuously evaluate the company's performance and use this information to update their views about the company. Typically, large job gaps that indicate agility are not far from their views. Agility is one of the organizational structure topics, which sometimes refers to "labor force adjustment." Agility is not a new issue in the organization, and from the past, companies began to reduce their workforce significantly when their profitability declined. Companies' primary goals from agility are cost reduction, efficiency improvement, maintaining a reasonable profitability level for shareholders, and getting rid of bankruptcy (Smith, 2010). Any news about agility is often disseminated in the financial and stock markets (Chernikof and Hoole, 2008; Pollack, 2008; Uchittle, 2008). With companies' involvement with the agility phenomenon, a sign, and a message from the company are sent to the market. The message indicates that the company had an optimal reduction in costs (salary) (Brockner et al., 1994, 1987; O'Neill & Lenn, 1995). As a result, users of accounting information use these messages and sign-ups to update their opinions about the company. From the investor's and

shareholders' point of view, the company's reputation will be improved by releasing such news.

Because agility is considered a useful management function, it is necessary to increase its competitive advantage and save it from bankruptcy. In this case, the company is commended for its actions and the implementation of managerial concepts such as lean production or lean management (Nienstedt, 1989; Womack et al., 1991) and face with possible outcomes such as less bureaucracy, more productivity, or faster decision making (Bruton et al., 1996). Love and Kraatz (2009) showed that with agility, the company creates an average of two-thirds of its value-added to maintain its reputation and prevent bankruptcy (Flangan and Oshainsi, 2005; Ziglli Dopoulos, 2004). These results show that with the loss of corporate credibility in the capital market, the best approach is agility (Brown and Dacin, 1997; Klein and Dawar, 2004; Mohr et al., 2004; Sen and Bhat tacharya, 2001). The type and degree of agility play an essential role in the general perception of agility. The most crucial perception of agility from shareholders' and investors' perspective is that by reducing the workforce, the company faces reducing costs and increasing profitability, resulting in a bankruptcy battle. In other words, agility methods can reduce the likelihood of bankruptcy in a wide range of workforce, board and retirement reductions to provide part-time recruitment instead of full-time or outsourcing (Appelbaum et al., 1999). Agility is, of course, a common organizational practice. But, the results of the researches are not consistent. This study adds to the growing content of literature related to agility and the probability of bankruptcy. Accordingly, in the next section, we discuss how agility reduces the probability of bankruptcy.

2.3. The Effect of Agility on Probability of Bankruptcy

Agility involves a deliberate reduction of the workforce, and it is based on the economic assumption that agility improves performance (Datta et al., 1995, 2010). While poor performance can reduce production, even healthy firms use agility because it is consistent with organizational theory and helps increase the company's value (Jang, 2015). Changes in the workforce's composition have increasingly been accepted to alter the existing human capitalization and reorganization of programs (Brauer and Laamanen, 2014). Therefore, agility has been strengthened as a practical plan (McKinley et al., 2000). While managers are optimistic about agility's positive results, research results on agility performance are poor or sometimes dual (Datta et al., 2010; Love and Norieh, 2005). There is some evidence that agility reduces bankruptcy risk (Powell and Yawson, 2012; Smith, 2010). Some companies increase their productivity through agility (Yu and Park, 2006) and are aggressive with the organization (Guysert et al., 2015; Gortiyeh and Data, 2008; Ndofor et al., 2013).

Zeron et al. (2017) investigated the issue that reducing the workforce is a way to rescue or escape. Golamon et al. (2017) investigated high-growth companies in work and production with dynamic interactions and the role of financial constraints. This study shows a positive relationship between high growth rates in terms of size and productivity. Also, the effect of size on productivity is smaller than productivity. Black (2017) explores the relationships between family management, family ownership, and small businesses. The results indicate that increasing family ownership hurts labor force contraction. Also, the family director seeks to reduce the workforce in line with the policies of the owners of the company. At the same time, the increase in the

interests of the CEO is not related to the reduction of the workforce. Ghaderi and Ghaderi (1396) investigated the impact of diversification strategy on corporate bankruptcy risk. The results indicate that the risk of bankruptcy of companies decreases with increasing business diversification. Joneydi et al. (1396) investigated the impact of parent companies' bankruptcy and subsidiaries on each other by analyzing their mutual relations and responsibilities. The results show that the parent company's bankruptcy impacts its subsidiary and its entry into the liquidation. Reviewing the literature shows that, despite studies conducted in other countries, researchers have not studied the role of agility in corporate bankruptcy. Therefore, it is expected that this research, in addition to contributing to the literature of agility and bankruptcy, will be useful for analysts, managers and policymakers of corporate affairs to formulate appropriate policies in the field of labor productivity working out and disclosing this information in financial reports will provide more transparent information to the stakeholders, which will ultimately reduce bankruptcy. Accordingly, the research hypothesis is as follows;

Hypothesis: Firms using agility reduce the likelihood of bankruptcy.

3. Research Method

This study is experimental research, and for analyzing the research data, the Multiple Linear Regression model is used. The population of this study includes all companies listed on the Tehran stock exchange from 2011 till 2016. For choosing samples, Purposeful Sampling is used. This means that companies considering the following features are selected:

- Selected companies are not financial intermediation and leasing.
- They listed on Tehran Stock Exchange until the end of 2016.
- During the research period, their stock trading has not stopped.
- In terms of increased comparability, their fiscal year ends in March.

Considering the mentioned conditions, total number of 188 companies are selected. Thus, secondary data of these companies are collected, and Eviews software is used for analyzing data. The research model is as follows;

$$Bankruptcy_{it-4} = \alpha_0 + \beta_1 Agility_{it} + \sum_{i=1}^{6} Control\ variables + \varepsilon_{it}$$

Bankruptcy: The dependent variable of this study is bankruptcy. Because the results of this study are different from other researches in the area of bankruptcy, the bankruptcy index calculated by Poorheidari and Koopayeh-Hajji (2010) is used to predict the possibility of bankruptcy of Iranian companies accurately. Poorheidari and Koopayeh-Hajji (2010) have a nine-variable model for predicting bankruptcy using a linear separation function. The coefficients of the model are also estimated using the statistical software as follows.

$$P = 3/20784K_1 + 1/80384K_2 + 1/61363K_3 + 0/50094K_4 + 0/16903K_5 - 0/39709K_6 - 0/12505K_7 + 0/33849K_8 + 1/42363K_9$$

In this model;

P: The probability of bankruptcy

K1: Profit before interest and tax to total assets (EBIT / TA)

K2: Accumulated earnings to total assets (AE / TA).

K3: Working capital to total assets (WC / TA).
K4: Equity to total liabilities (E / TL).
K5: Profit before interest and tax to sales (EBIT / S).
K6: Current assets to current liabilities (CA / CL).
K7: Net earnings to sales (NE / S).
K8: Total liabilities to total assets (TL / TA).
K9: Firm Size (FS).
Cutoff = 15/8907
If P < 15/8907, then the company is subject to bankruptcy.
If P >= 15/8907, then the company is not subject to bankruptcy.

Agility: The independent variable of this study is agility. The reduction of workforce and personnel changes is used to calculate this variable. According to Black (2017), Zeron et al. (2017), Golamon et al. (2017), if a firm reduces its workforce or its staff by 5% or more, agility happens. This research's control variables include ROA, ROE, leverage, current liquidity, firm size, and capital expenditures.

Return on Assets (ROA): net profit to total assets.

Return on Equity (ROE): net profit to the stock market value.

Leverage: Total liabilities to total equity.

Current liquidity: The cash flow to current debts.

Firm size: The natural logarithm of the number of employees.

Capital Expenditures: Capital expenditures (cash payments for the purchase of fixed assets) to total assets.

4. Results

4.1. Descriptive statistics

Descriptive statistics of research variables are presented in Table (1).

The results show that the telecommunication company in 2010 with a risk level of 20/66% is in the worst financial situation in terms of bankruptcy and Farsit Drood Company in 2016 with a risk level of -3/48 is in the best financial position. Among all observations, 1432 agility are happened. 318 observations have not used this policy. Farsit Drood Company, which was in the best financial position in 2016, has used agility policy in its organizational strategies.

4.2. Testing Research Hypothesis

4.2.1. F-Limer and Hausman Tests

For analysing the research model, first F-Limer test is used to distinguish panel data from pooled data, if error is less than 5% data are panel and if it is more than 5% data are pooled. The results of cross-section F-test is 0, thus, data are panel. Afterwards, fixed effects and random effects of data are examined using Hausman test. Regarding the results of Hausman test in static model, error is 0.000. Thus, fixed effects of panel data are accepted. Table 2 shows the results of F-Limer and Hausman tests. For every hypothesis, error is 5% and confidence level is 95%.

Table 1: Descriptive Statistics of Research Variables

Variables	mean	median	max	min	S.D
Bankruptcy	9/69	9/73	20/76	-3/48	1/43
Agility	0/81	1	1	0	0/38
ROA	0/90	0/91	1	0/13	0/09
ROE	0/46	0/13	2/71	0/00	0/97
Leverage	0/09	0/05	0/99	0/00	0/12
Current liquidity	0/03	0/02	0/46	0/00	0/04
Firm size	5/94	5/86	8/30	4/29	0/69
Capital expenditure	0/25	0/21	0/89	0/00	0/18

4.2.2. Testing Multicollinearity

To test the multicollinearity between residuals, the Durbin-Watson test is used. If the durbin-Watson statistic is between 1.5 and 2.5, the multicollinearity problem does not exist. Table 3 shows the results of the Durbin-Watson test.

4.2.3. Testing Consistency of Residuals

One of the main hypotheses of a suitable regression model is the assumption of homogeneity (consistency of the residual variance). In this study, to investigate this hypothesis, White (White Test) is used. The null hypothesis in this test is the consistency of variances, and if the p-value is more than 0.05, the null hypothesis is accepted. The result of the white test is presented in table 4. The p-value is 0.45, and the null hypothesis is accepted. Therefore, based on this result, the variance of residuals is consistent.

4.2.4. Testing Research Hypotheses

The results of testing the research hypothesis are presented in Table (5).

Table 2:Results of FLimer and Hausman Tests

F-Limer Test			Hausman Test		
F	P	result	K^2	P	result
4/448	0.00	**panel**	63/496	0.00	**Fixed**

Table 3: Durbin-Watson Statistics

Accepted range	Durbin-Watson Statistics
1.5<DW>2.5	2.25

Table 4: The result of White Test

f-statistic	p-value
0.68	0.45

Table 5: Multiple Regression Analyses

variables	Coefficient	t-statistic	P-value
c	7/322	4/124	0.000
Agility	-0/094	-3/441	0/000
ROA	-0/092	-1/892	0/069
ROE	-0/015	-1/759	0/078
Leverage	0/130	1/436	0/062
Current Liquidity	-0/152	-0/184	0/853
Firm Size	0/362	1/284	0/199
Capital Expenditure	-0/404	-0/585	0/558
Adjusted R^2: 0.59 F-Value: 11/023		Prob (F-statistic): 0.00	

The results in table 5 show that based on the p-value of F-statistic, which is less than 0.05, the null hypothesis is rejected, and this model is significant at 95% confidence level. Regarding the research hypothesis, based on the results in table 5, the p-value is less than 0.05 (p-value, 0.00) for agility, and also, the coefficient is -0/094. Thus, there is a significant negative relationship between agility and bankruptcy. The R^2 is 0.59, which shows that changes in independent variables explain 59 percent of dependent variable changes.

5. Discussion and Conclusion

The economic environment of companies is overwhelming, with many opportunities and challenges. A strategic look at the company's changing and economic conditions can be a useful mechanism for long-term and sustainable success. Often, due to difficult economic conditions, especially during the global sanctions

against Iran, some companies' managers are thinking of reducing human resources. Perhaps at first glance, with a simple analysis, it seems that this decision has negative aspects; however, agility can be one of the best decisions in this situation. Due to the importance of such decisions in companies, in this study, agility on bankruptcy probability is investigated.

The results show that companies reduce the possibility of bankruptcy by using agility. With agility, managers save on workforce costs and reduce costs and improve the company's financial situation. As a result, by reducing the workforce and reducing staff costs (personnel), companies' bankruptcy is postponed. This result is consistent with Zeron et al. (2017), and it can be concluded that agility for the organization's engineering is a necessary and a new and proven paradigm. The need for this new paradigm is based on an increase in the rate of change in an environment that forces companies to respond to the impending prospect of bankruptcy.

Regarding the importance of agility and bankruptcy, managers should suggest that if the company is in a bad financial situation, agility is the best option for reducing costs. They can use agility as a strategy for cost leadership against bankruptcy. This study's main limitation is the lack of enough research on agility and a lack of a quantitative index to measure agility. Moreover, the bankruptcy variable is measured by the model, which is developed according to the environmental conditions and financial status of the companies listed on the Tehran Stock Exchange.

References

Altman, E. I., Sabato, G., & Wilson, N. (2008). The value of qualitative information in SME risk management. Journal of Financial Services Research, 40(2), 15–55.

Appelbaum, S. H., Close, T. G., & Klasa, S. (1999). Downsizing: an examination of some successes and more failures. *Management Decision*, 37(5), 424-436.

Block, J. & Koellinger, P. (2009). I can't get no satisfaction − necessity entrepreneurship and procedural utility. *Kyklos*, 62(1), 191-209.

Block, J. (2009). Long-term orientation of family firms: an investigation of R&D investments, downsizing practices, and executive pay. Wiesbaden: Gabler.

Block, J. (2017). Family Management, Family Ownership, and Downsizing: Evidence from S&P 500 Firms. Family Business Review.

Boratyńska, K. (2016). FsQCA in corporate bankruptcy research. An innovative approach in food industry. Journal of Business Research, 69(11), 5529–5533.

Brauer, M., & Laamanen, T. (2014). Workforce downsizing and firm performance: An organizational routine perspective. Journal of Management Studies, 51(8), 1311–1333.

Brockner, J., Grover, S., Reed, T. F. & O'Malley, O. (1987). Survivors' reactions to layoffs: we get by with a little help for our friends. *Administrative Science Quarterly*, 32(4), 526-541.

Brockner, J., Konovsky, M., Cooper-Schneider, R., Folger, R., Martin, C., & Bies, R. J. (1994). Interactive effects of procedural justice and outcome negativity on victims and survivors of job loss. Academy of Management Journal, 37(2), 397–409.

Brown, T. J., & Dacin, P. A. (1997). The company and the product: corporate associations and consumer product responses. *Journal of Marketing*, 61(1), 68-84.

Bruton, G. D., Keels, J. K., & Shook, C. L. (1996). Downsizing the firm: answering the strategic questions. *The Academy of Management Executive*, 10(2), 38-45.

Capelle-Blanchard, G., & Couderc, N. (2007). How do shareholders respond to downsizing? A meta-analysis. SSRN working paper 952768.

Chernikoff, H., & Howell, M. (2008). Wave of job cuts sweeps across corporate America. *Reuters online*, October 23rd, 2008.

Datta, D. K., Guthrie, J. P., Basuil, D., & Pandey, A. (2010). Causes and effects of employee downsizing: A review and synthesis. Journal of Management, 36(1), 281–348.

Datta, S., & Iskandar-Datta, M. E. (1995). Reorganization and financial distress: An empirical investigation. Journal of Financial Research, 18(1), 15–32.

DeMeuse, K. P., & Dai, G. (2013). Organizational downsizing: Its effect on financial performance. Journal of Managerial Issues, 25(4), 324–344.

Fisher, S. R., &White, M. A. (2000). Downsizing in a learning organization: Are there hidden costs? Academy of Management Review, 25(1), 244–251.

Flanagan, D. J. & O'Shaughnessy, K. C. (2005). The effect of layoffs on firm reputation. *Journal of Management*, 31(3), 445-463.

Gensler, L. (2016). Profits Are Still Tumbling at America's Big Oil Companies. Forbes (Retrieved from http://www.forbes.com/sites/laurengensler/2016/10/28/exxonmobilchevron-earnings-oil-prices-2/#5cde1e5c18e8).

George, J. M. (2014). Compassion and capitalism: Implications for organizational studies. Journal of Management, 40(1), 5–15.

Gerpott, T. J. (2007). Bewertung von Personalabbauprogrammen aus Aktionärssicht – eine Bestandaufnahme der empirischen Forschung. *Journal für Betriebswirtschaft*, 57(1), 3-35.

Goesaert, T., Heinz, M., & Vanormelingen, S. (2015). Downsizing and firm performance: Evidence from German firm data. Industrial and Corporate Change, 24(6), 1443–1472.

Guillamón, C. Moral-Benito, E & Puente, S. (2017). "High growth firms in employment and productivity: dynamic interactions and the role of financial constraints?," Working Papers 1718, Banco de.

Guthrie, J. P., & Datta, D. K. (2008). Dumb and dumber: The impact of downsizing on firm performance as moderated by industry conditions. Organization Science, 19(1), 108–123.

Habib, A. Borhan Uddin Bhuiyan, Ainul Islam, (2013) "Financial distress, earnings management and market pricing of accruals during the global financial crisis", Managerial Finance, Vol. 39 Issue: 2, pp.155-180.

Habib, Ahsan; Bhuiyan, Borhan Uddin and A. Islam. (2012). "Financial distress, earnings management and market pricing of accruals during the

Jannidi, Liaia; Eskandari, Hassan; Farjam, Behzad. (1396). Impact of bankruptcy of parent companies and subsidiaries on each other by examining their relationships and their mutual responsibility. Quarterly Journal of Private Law Studies (Quarterly Journal of Law), 47 (2), 231-249.

Jung, J. (2015). Shareholder value and workforce downsizing, 1981–2006. Social Forces, 93(4), 1335–1368.

Karake, Z. A. (1998). An examination of the impact of organizational downsizing and discrimination activities on corporate social responsibility as measured by a company's reputation index. *Management Decision*, 36(3), 206-216.

Klein, J., & Dawar, N. (2004). Corporate social responsibility and consumers' attributions and brand evaluations in a product-harm crisis. *International Journal of Research in Marketing*, 21(3), 203-217.

Lewin, J. E., Biemans, W., & Ulaga, W. (2010). Firm downsizing and satisfaction among United States and European customers. Journal of Business Research, 63(7), 697–706.

Love, E. G., & Nohria, N. (2005). Reducing slack: The performance consequences of downsizing by large industrial firms, 1977–93. Strategic Management Journal, 26(12), 1087–1108.

Love, G. E., & Kraatz, M. (2009). Character, conformity, or the bottom line? How and why downsizing affected corporate reputation. *Academy of Management Journal*, 52(2), 314-335.

McKinley, W., Zhao, J., & Rust, K. G. (2000). A socio-cognitive interpretation of organizational downsizing. Academy of Management Review, 25(1), 227–243.

Mohr, L. A., Webb, D. J., & Harris, K. E. (2001). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. *Journal of Consumer Affairs*, 35(1), 45-72.

Ndofor, H. A., Vanevenhoven, J., & Barker, V. L., III (2013). Software firm turnarounds in the 1990s: An analysis of reversing decline in a dynamic industry. Strategic Management Journal, 34(9), 1123–1133.

Newton GW (1998); "Bankruptcy Insolvency Accounting", Practice and Procedure. J. Financ. Econom, 1:pp 21-41.

Niehoff, B. P., Moorman, R. H., Blakely, G., & Fuller, J. (2001). The influence of empowerment and job enrichment on employee loyalty in a downsizing environment. Group& Organization Management, 26(1), 93–113.

Nienstedt, P. R. (1989). Effectively downsizing management structures. *Human Resource Planning*, 12(2), 155-164.

O'Neill, H., & Lenn, J. D. (1995). Voice of survivors: words that downsizing CEOs should hear. *Academy of Management Executive*, 9(4), 23-24.

Pollack, A. (2008). Merck plans to cut 12% of work force as its sales and profit fall. *The New York Times* (online version), October 23rd, 2008.

Powell, R., & Yawson, A. (2012). Internal restructuring and firm survival. International Review of Finance, 12(4), 435–467.

Probst, T. M. (2003). Exploring employee outcomes of organizational restructuring a Solomon four-group study. Group & Organization Management, 28(3), 416–439.

Probst, T. M., Stewart, S. M., Gruys, M. L., & Tierney, B. W. (2007). Productivity, counterproductivity and creativity: The ups and downs of job insecurity. Journal of Occupational and Organizational Psychology, 80(3), 479–497.

Qaderi, Kaveh, Qaderi, Salah al-Din. (1396). Investigating the Impact of Diversification Strategy on Corporate Bankruptcy Risk. Financial Accounting Knowledge, 4 (4), 119-137.
Raj, M., & Forsyth, M. (1999). Restructuring and layoffs: does the UK market view them positively? *Journal of Global Business*, 10(19), 55-64.

Rusaw, A. C. (2004). How downsizing affects organizational memory in government: Some implications for professional and organizational development. Public Administration Quarterly, 28(3/4), 482–500.

Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38(2), 225-243.

Shaw, J. D., Duffy, M. K., Johnson, J. L., & Lockhart, D. E. (2005). Turnover, social capital losses, and performance.

Academy of Management Journal, 48(4), 594–606.

Smith, F. S. (2010). Do layoffs affect the probability of bankruptcy? Journal of Academy of Business and Economics, 10(5), 75–85.

Uchitelle, L. (2008). U.S. layoffs increase as businesses confront crisis. *International Herald Tribune* (online version), October 26th, 2008.

Ursel, N., & Armstrong-Stassen, M. (1995). The impact of layoff announcements on shareholders. *Industrial Relations*, 50(3), 636-645.

Wells, Georgia (2016). GoPro to reduce workforce by 15% in revamp. Wall Street Journal. Eastern edition ed. (ProQuest. Web. 10 Mar. 2017).

Womack, J. P., Jones, D. T., & Ross, D. (1991). *The machine that changed the world. The story of lean production*. New York: Harper Collins.

Worrel, D. L., Davidson III, W. N., & Sharma, V. N. (1991). Layoff announcements and stockholder wealth. *Academy of Management Journal*, 34(3), 662-678.

Yu, G. C., & Park, J. S. (2006). The effect of downsizing on the financial performance and employee productivity of Korean firms. International Journal of Manpower, 27(3), 230–250.

Zorn, M. L. Norman, P. M. Butler, F C. Bhussar, M. S. (2017). Cure or curse: Does downsizing increase the likelihood of bankruptcy? Journal of Business Research. Volume76, Pages 24-33.

Zyglidopoulos, S. C. (2004). The impact of downsizing on the corporate reputation for social performance. *Journal of Public Affairs*, 4(1), 11-25.

HOW TO CITE THIS ARTICLE
Aghaei Chadegani, A., Bekhradi Nasab, V (2021). The Impact of Agility on the Probability of Bankruptcy. International Journal of Finance, Accounting and Economics Studies, 3(1): 68-77.
DOI:
Url: https://ijfaes.srbiau.ac.ir/article_16620.html
Journal homepage: https://ijfaes.srbiau.ac.ir