

# Role and Relevance of Credit Rating - A Study with Special Reference to Retail Equity Investor's Perception in India

Dr. Kamaljeet Bhatia  
Principal  
Techno Engineering College Indore

## Abstract

Credit rating agencies play an important role in providing one source of information that aids exactitude and market competence thereby tumbling the imbalance of information that often exists among the stock market investors. Credit rating provides analytical assistance to the potential investors on the extent of risk involved in the appropriate repayment of principal and interest. Rating gives advanced information about the rated product at low cost to the investor. Thus, the investor can effortlessly identify the risk involved and obtain predictable benefit of the instrument by glancing at the symbols. This study endeavors to act show as to how the retail equity investors could enhance their participation in the Indian Capital market by relying on the information dished out by the credit rating agencies. The methodology of the study is based on primary data collected through well framed and structured questionnaire to elicit the perception of retail investors on the usefulness of credit rating agencies. Factor analysis by principal component method has been applied to reduce the number of awareness of rating among the retail equity investor related variables and usage of ratings related variables into four meaningful factors respectively. Multiple regression analysis has been employed to establish the influence of Awareness of the ratings among the retail equity investor with the usage of rating by the retail equity investor. Results reveal that awareness about the credit rating by providing appropriate information to the retail equity investors and integrity of Credit Rating play vital role in creating maximum Usage of rating by offering Credit Protection to the equity investor.

**Keywords:** Credit rating agencies, Credit Protection, Performance Benchmark, Integrity, Stock Market

## 1.1 Introduction

Credit rating agencies act as drivers of the stock market volatility. Any rating news which has a positive externality reduces credit risk, and a negative externality, increases volatility risk. The volatility may depend on two sets of factors: the effect of regulations embodying such ratings, and the communication policies adopted by Credit Rating Agencies. Credit rating agencies play an important role in providing one source of information that aids exactitude and market competence thereby tumbling the imbalance of information that often exists among the stock market investors. Credit rating provides analytical assistance to the potential investors on the extent of risk involved in the appropriate repayment of principal and interest. It is often made out that Credit rating is a basis of reliable information for many users as rated instruments highlight the company's financial health. Rating gives advanced information about the rated product at low cost to the investor. Thus, the investor can effortlessly identify the risk involved and obtain predictable benefit of the instrument by glancing at the symbols. The underlying principle of rating service is to refurbish investor's confidence.

In fact, ratings establish the link between risk and return along with the provision of a yardstick to assess the risk level and compare the offered rate of return that influences the composition of the investor's portfolio. Credit rating is used as decisive inputs in determining their portfolio by the investors. Credit rating agencies operate as one of source to fulfill the information gap to the retail investors who are amateur in investment activities. Credit rating agencies help to perforate the haze of asymmetric information by offering judgments in the form of opinion about the credit quality of the instrument. Thus, the credit rating agencies have evolved to play an informational intermediary role. Stock market is extensively considered as a principal pointer to replicate investor's outlook of futuristic economic conditions. This study endeavors to act show as to how the retail equity investors could enhance their participation in the Indian Capital market by relying on the information dished out by the credit rating agencies.

## 1.2 Review of literature

Ed DeHaan (2013) examined the credibility of rating agencies with regard to corporate credit rating of Structured Finance Product (SFP). The author identified that the inaccurate corporate ratings affected investor's participants in debt market due to information variation in the year 2007. Finally, he concludes that the credibility is primary determinant for market participants to rely for making investment decision. Matthias Bodenstedt and Daniel Rosch (2012) focus in their study on the ability of ratings agencies to adjust their ratings prior to the impairment of structured finance transactions and also identify the macroeconomic factors that explain differences in Moody's performance. Ratings depend upon the volume of transaction, rating quality, competition, amount of default etc. Based on an empirical study of 13679 impairments rated by Moody's, it is focused that ratings are generally adjusted prior to default. It allowed investors to adapt to the increased portfolio risk. Finally, they suggest that investors and regulators should consider things other than ratings such as volume, asset type, time since origination and the overall economic situation.

Shreekant Iyengar (2012) argues that there should be similarities among the ratings issued by two or more rating agencies on one particular instrument. Further, the author compares rating relationship between Moody's and S&P on sovereign debt instruments during the period from 2007 to 2010. The author used regression analysis to find out the relationship between the two ratings. The researcher found that there is statistically a significant difference in sovereign ratings of Moody's and S&P even though they are using a common methodology to rate the instruments which leads misperception among the investors, about the rating agencies. This eventually leads to confusion among the investors on investment decision making.

Farisa Zarin (2012) argues that the credit ratings are intended for use by wholesale market participants, credit ratings are only supplement and not a replacement for own credit analysis. Higher risk results when that retail investors over-rely on credit ratings and also Risks would be greater, if the Government encouraged retail investors to use credit ratings, especially under a licensing 'regime'. Finally he recommends, against the Government or Australian Securities and Investments Commission (ASIC) facilitating the provision of credit ratings directly to retail investors for interpreting as the Government which is encouraging retail investors to rely on ratings, and also Australian retail investors encouraged to get the wrong idea about credit ratings provided by a Credit rating agencies holding retail Australia financial services licence (AFSL) as recommendations to buy or sell securities.

Kaur, Kuljeet (2012) made an attempt to analyze the impact of ratings on debt market and investors in US. The authors evaluated that the ratings had a direct impact on the debt market as the cost of the firm and the marketability of the issue were determined by the assigned ratings and the investors regard the recent ratings as indicators of the firm's overall investment quality including the cost of debt and equity. The study inducted that there were certain difficulties in rating qualitative factors called as rater's judgment, which might be properly taken into consideration while rating the to make the ratings more effective.

### **1.3 Statement of Problem**

During the period of global financial crisis, investors who relied on credit rating agencies and had bought the fake financial products and suffered huge losses. In fact, the activity of credit rating agencies is one of the factors that add pressure to volatility. For instance, rating related news such as publication of a rating or revision of the existing rating is linked with volatility, although it is true that credit rating agencies act as information intermediary to the retail equity investors.

### **1.4 Research Questions**

- Are the retail equity investors are aware of ratings assigned by credit rating agencies?
- Are the ratings assigned by Credit rating agencies in India useful to the retail equity investors?

### **1.5 Objectives of the Study**

- To study the perception of retail equity investors about their awareness about the credit rating agencies.
- To study the perception of retail equity investors about the usage of credit rating agencies.

### **1.6 Methodology**

The methodology of the study is based on primary data collected through well framed and structured questionnaire to elicit the perception of retail investors on the usefulness of credit rating agencies. Simple random sampling has been used to collect responses from the retail investors. The study has been conducted among the retail investors of different broking and sub broking firms having several branches in Indore

City.

The sample of the study is limited to retail equity investors because individual investors constitute an important group in the financial market place and it becomes even more pronounced taking into consideration that even an emerging economy like India already accommodates 2.02 million individual retail investors being largest in the world. Further this research demonstrates that primary survey can contribute several important ways to increase the level of awareness among the retail equity investors in using credit rating services.

### **1.7 Questionnaire Design**

The questionnaire consisted of the following parts:

Part I Elicits the demographic profile of the respondents

Part II Deals with their Awareness of the Ratings

Part III Seeks details on their Usage of ratings assigned by rating agencies

### **1.8 Data Collection**

Data for this study was primarily collected through a survey in the form of a questionnaire as well as through research based published data concerning retail investor participation. Primary data refers to data, which is collected for specific purpose and which is required in order to complement secondary data. Secondary data refers to the existing collected and summarized material of the research papers and publications. This data originates from sources such as databases, literature, journals and the internet.

The primary data was collected from the 200 retail clients of share broking firms in person by the researcher through survey method. For a few respondents who were busy during trading hours and those who experienced difficulty in language, responses were collected orally by the researcher in a one-to-one interview manner. A mail survey instrument was also chosen as the method of collecting the self-reported data. Despite potential problems with non-response, mail questionnaires are commonly held as the most efficient means of collecting empirical data. The researcher developed a web page that contained the survey questionnaire and allowed respondents to mail their response to an email account specifically created for this purpose.

### **2.1 Empirical Results and Discussion**

In this section the researcher deals with the empirical analysis and discussion. Factor analysis by principal component method has been applied to reduce the number of awareness of rating among the retail equity investor related variables and usage of ratings related variables into four meaningful factors respectively.

Multiple regression analysis has been employed to establish the influence of Awareness of the ratings among the retail equity investor with the usage of rating by the retail equity investor.

**Table 1: Reliability**

Role and Relevance of rating	Cronbach's Alpha	No. of Variables
Awareness	.800	11
Usage	.611	10
Benefit	.660	10

*Source: Computed Data*

Cronbach alpha test was used to determine the degree of consistency among the multiple measurements of each factor. It measures the inter-item reliability of a scale generated from a number of items. Ideally, the reliability coefficient above 0.5 is considered acceptable as a good indicator of construct reliability, above 0.6 is treated satisfactory, but alpha above 0.7 is considered sufficient. The questionnaire responses exhibited Cronbach-Alpha value of 0.800 for items relating to awareness of the rating among the retail equity investor, 0.611 for items relating to usage of the rating given by rating agencies to retail equity investor and .660 for items related to the benefit of ratings given by rating agencies. These alpha values are statistically significant to ensure a smooth normal distribution and to justify the sample statistics for the representation of population parameters.

## 2.2 Factor Analysis for Awareness about the ratings

Grouping the variables gives more clarity on the subject and also on the decision mechanism design. In view of this, the researcher grouped the items using Principal Component Analysis with Varimax and Kaiser Normalization. In this part of the analysis the researcher attempts to identify the factors responsible for awareness about the rating among the retail equity investor. There are 11 variables quoted in the Questionnaire therefore the data reduction is done through the application of factor analysis by principal component method and the following results are obtained.

**Table 2: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.711
Bartlett's Test of Sphericity	Approx Chi square	170.568
	df	55
	Sig	.000

*Source: Computed Data*

From the table No 2 it is found that KMO measure of sampling adequacy is .711, Bartlett's Test of Sphericity with approximate chi square value 170.568,  $p = .000$  are statistically significant at 5 percent level. Therefore, it can be concluded that the variables considered for Factor Analysis form the normal distribution less than 5%

admissible error to represent the factors emerged. This implies that the sample size is adequate for data reduction process and creates a conducive situation to ascertain the latent factors responsible for awareness about the rating among the retail equity investor.

**Table 3: Communalities**

Awareness of Rating Agencies	Initial	Extractio
Rating help to recognize unknown issuer company	1.000	.648
Ratings is highly important at times of uncertainty	1.000	.822
Rating provided by all the agencies are equally reliable	1.000	.775
Ratings help in disseminating information to relatively uninformed investors	1.000	.606
Ratings considers all the financial information of the company	1.000	.403
Ratings distill the complex financial structure into user friendly symbols	1.000	.778
Rating provides adequate information	1.000	.712
Rating facilitates portfolio decision making	1.000	.693
Rating acts as an information equalizer to enlarge the investor	1.000	.683
Ratings boost the investor confidence	1.000	.743
News of downgrade rating affects investment decisions	1.000	.679

*Extraction Method: Principal Component Analysis.*

From the table No 3 it is found that the 11 variables exhibit the variances from .403 to .822. This implies that the range of variations defined "between" 40 percent to 82 percent, which is statistically significant to go ahead for the meaningful data reduction process. This is adequate for factor segmentation from the variables. This leads to the factor formation as stated in the table below.

**Table 4: Total Variance Explained**

*Extraction Method: Principal Component Analysis.*

From the table No 4, 11 variables are reduced into 4 predominant factors. It is found that 11 variables exhibit the total variance of 68.571 percent. It is also ascertained that the four factors individually possess the variances 19.903 percent, 18.514 percent, 17.572 percent, 12.582 percent respectively. This leads to variable loading of each

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.793	34.480	34.480	3.793	34.480	34.480	2.189	19.903	19.903
2	1.458	13.255	47.735	1.458	13.255	47.735	2.037	18.514	38.417
3	1.248	11.341	59.077	1.248	11.341	59.077	1.933	17.572	55.989
4	1.044	9.494	68.571	1.044	9.494	68.571	1.384	12.582	68.571
5	.870	7.911	76.483						
6	.673	6.119	82.602						
7	.507	4.609	87.210						
8	.483	4.387	91.597						
9	.386	3.507	95.104						
10	.327	2.968	98.073						
11	.212	1.927	100.000						

factor that is responsible for the creating awareness about the ratings among the retail equity investor. This leads to factor segmentation through grouping of variables as shown in the rotated component matrix.

**Table 5: Rotated Component Matrix**

*Extraction Method: Principal Component Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

*a Rotation converged in 15 iterations.*

The rotated component matrix in the factor analysis grouped the variables as follows. The factor I consists of three variables having the variance of 19.903% which represents the Information equalizer, reliable ratings, financial information. The factor I is labeled as “Information Factor”. The factor II consists of three variables having the variance of 18.514% which represents the Investor confidence, Accurate Information, Portfolio Decision making. The factor II is labeled as “Integrity Factor”. The factor III consists of three variables having the variance of 17.574% which represents the

Awareness of Rating Agencies	Component			
	1	2	3	4
Rating acts as an information equalizer to enlarge the investor base	.792			
Rating provided by all the agencies are equally reliable	.697	.442		
Ratings considers all the financial information of the company	.578			
Ratings considers all the financial information of the company		.794		
Ratings help in disseminating information to relatively uninformed investors		.742		
Rating facilitates portfolio decision making		.615	.510	
News of downgrade rating affects investment decisions			.780	
Ratings is highly important at times of uncertainty	.506		.622	
Rating help to recognize unknown issuer company	.499		.616	
Ratings distill the complex financial structure into user friendly symbols				.793
Rating provides adequate information			.457	.636

Downgrade rating news, Significant at uncertain times, Recognition of unknown issuer. The factor III is labeled as “Accountability Factor”. The factor IV consists of two variables having the variance of 12.582% which represents User friendly symbols, adequate information. The factor IV is labeled as “Knowledge Factor”.

### 2.3 Factor Analysis for Usage of the ratings

Grouping the variables gives more clarity on the subject and also on the decision mechanism design. In view of this, the researcher grouped the items using Principal Component Analysis with Varimax and Kaiser Normalization. In this part of the analysis the researcher attempts to identify the factors responsible for awareness about the rating among the retail equity investor. There are 10 variables quoted in the Questionnaire therefore the data reduction is done through the application of factor analysis by principal component method and the following results are obtained.

**Table 6: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.526
Bartlett's Test of Sphericity	Approx Chi square
	df
	Sig
	146.402
	45
	.000

Source: Computed Data

From the table No 6, it is found that KMO measure of sampling adequacy is .526, Bartlett's Test of Sphericity with approximate chi square value 146.402,  $p = .000$  are statistically significant at 5 percent level. Therefore, it can be concluded that the variables considered for Factor Analysis form the normal distribution to represent the factors emerged. This implies that the sample size is adequate for data reduction process and creates a conducive situation to ascertain the latent factors responsible for usage of the rating among the retail equity investor.

**Table 7: Communalities**

Usage of Rating Agencies	Initial	Extractio
Rating exhibits the creditworthiness of the instrument	1.000	.717
Rating is the indicator of safety of investment	1.000	.807
Rating symbols are signs of credibility	1.000	.705
Rating determines the extent of credit risk relating to instruments	1.000	.555
When the market are under stress, investors question the veracity	1.000	.823
Rating agencies devote sufficient resources to assess the quality of	1.000	.679
Rating decisions are influenced by the pressures from issuers	1.000	.688
Rating agencies are governed by the provisions of their own code	1.000	.791
Rating agencies provide performance benchmark of corporate	1.000	.501
Rating agencies are unbiased in giving credit opinions	1.000	.837

Extraction Method: Principal Component Analysis.

From the table No 7 it is found that the 10 variables exhibit the variances from .501 to .837. This implies that the range of variations defined "between" 50 percent to 83 percent, which is statistically significant to go ahead for the meaningful data reduction process. This is adequate for factor segmentation from the variables. This leads to the factor formation as stated in the table below.

**Table 8: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.780	27.804	27.804	2.780	27.804	27.804	2.460	24.604	24.604
2	1.630	16.302	44.105	1.630	16.302	44.105	1.706	17.057	41.661
3	1.580	15.797	59.902	1.580	15.797	59.902	1.524	15.239	56.900
4	1.112	11.124	71.026	1.112	11.124	71.026	1.413	14.126	71.026
5	.822	8.220	79.246						
6	.680	6.798	86.045						
7	.542	5.422	91.466						
8	.422	4.219	95.686						
9	.238	2.383	98.069						
10	.193	1.931	100.000						

Extraction Method: Principal Component Analysis.

From the table No 8, ten variables are reduced into 4 predominant factors. It is found that 10 variables exhibit the total variance of 71.026 percent. It is also ascertained that the four factors individually possess the variances 24.604 percent, 17.057 percent, 15.239 percent, 14.126 percent. This leads to variable loading of each factor that is

responsible for the usage of the ratings among the retail equity investor. This leads to factor segmentation through grouping of variables as shown in the rotated component matrix.

**Table 9: Rotated Component Matrix**

Usage of Rating Agencies	Component			
	1	2	3	4
Rating is the indicator of safety of investment	.887			
Rating symbols are signs of credibility	.813			
Rating exhibits the creditworthiness of the instrument	.810			
Rating determines the extent of credit risk relating to	.562			.404
Rating agencies are unbiased in giving credit opinions		.863		
Rating agencies are governed by the provisions of their own		.816		

*Extraction Method: Principal Component Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

*Rotation converged in 5 iterations.*

The rotated component matrix in the factor analysis grouped the variables as follows. The factor I consists of four variables having the variance of 24.604% which represents Safety Investment indicator, Sign of credibility, Instrument Creditworthiness, Financial Instrument's Credit Risk. The factor I is labeled as "Credit Protection Factor". The factor II consists of two variables having the variance of 17.057% which represents the Unbiased Credit Opinions, Own Code of Conduct. The factor II is labeled as "Opinion Factor". The factor III consists of two variables having the variance of 15.239% which represents Pressures from issuers, Performance benchmark. The factor III is labeled as "Company Factor". The factor IV consists of two variables having the variance of 14.126% which represents Quality of Instrument, Question on Rating Accuracy. The factor IV is labeled as "Quality Factor".

#### 2.4 Multiple regressions Analysis

The researcher employs multiple regression analysis to examine the collective influence of awareness about the rating on the usage of the rating among the retail equity investor. Multiple regression analysis is used to predict the variance between the dependent variable and independent variables. The multiple regression analysis explores the interrelationship among variables and the contribution of each predictor to explain the variance in the dependent variable. In this regression approach factors responsible for creating awareness of rating among the retail equity investor are considered as independent variables and factors responsible for the usage of rating among the retail equity investor are expressed as dependent variable.

#### 2.5 Influence of awareness factor on usage of Credit Rating

The factor analysis Principal Component Analysis identified four factor of awareness namely Information, Integrity, Accountability and finally Knowledge and Four factor of usage namely Credit protection, Opinion, Company, and Quality. In this juncture, awareness factors are considered as an independent variable and Usage factors consider as a dependent variable.

The influence of inducted variable over the independent factor is estimated through Linear multiple Regression analyzed as follows:-

### Influence of credit protection factor

Regression	R Square = .370	F = 7.051	Sig.= .000
Awareness factors (independent)	Standardized Coefficients	t	Sig.
	Beta	B	Std. Error
Information	.489	4.271	.000
Integrity	.241	2.104	.041
Accountability	.198	1.731	.090
Knowledge	.183	1.593	.118

*Sources: Computed data*

From the above the table it's found that  $R^2=.370$ ,  $F=7.051$ , Beta (sig.) = .000 are statistically significant at 5% level. This indicates the awareness factors create significant influence over one of the Usage factor namely "Credit protection", among the four factors of awareness only two factors are statistically significant at 5% level namely Information ( $t=4.271$ , Beta = .489,  $B=.000$ ) and Integrity ( $t=2.104$ , Beta = .241,  $B=.041$ ). This indicates Awareness about the credit rating by providing appropriate information to the retail equity investors and integrity of Credit Rating play vital role in creating maximum Usage of rating by offering Credit Protection to the equity investor.

### Influence of Quality factor

Regression	R Square = .406	F = 8.200	Sig.= .000
Awareness factors (independent)	Standardized Coefficients	t	Sig.
	Beta	B	Std. Error
Information	-.057	-.516	.608
Integrity	.573	5.152	.000
Accountability	-.264	-2.377	.021
Knowledge	.065	.585	.561

*Sources: Computed data*

From the above the table it's found that  $R^2=.406$ ,  $F=8.200$ , Beta (sig.) = .000 are statistically significant at 5% level. This indicates the awareness factor create significant influence over one the Usage factor namely "Quality". Among the four factors of awareness only two factors namely Integrity and Accountability are statistically significant at 5% level (integrity ( $t=5.152$ , Beta = .573,  $B=.000$ ) and Integrity ( $t=-2.377$ , Beta = -.264,  $B=.021$ )). Results obtained confirms with the previous research undertaken by Sarbjit Singh Bedi and Sukhwinder Kaur (2013) found out the awareness level of credit-rating agencies among SMEs and the researchers concluded that there are three factors which enhanced the effectiveness of credit rating companies namely managerial effectiveness, credibility and creative marketing efforts. This indicates integrity of the credit rating agencies in delivering appropriate information enables the retail equity investors in formulating portfolio decisions. Ratings is highly important at the times of uncertainty and news of downgrade rating affects investment decisions. Thus rating agencies must make themselves accountable in providing quality information.

### 3. Conclusion

The reputation and reliability of Credit Rating Agencies have taken a knock since the US subprime crisis of September 2008. Investors have seen their lifetime savings wiped out and governments have been voted out of power. This vantage position of CRAs as setters of investment flow has empowered them as makers or breakers of the

fortunes of the countries or corporations, enabling them to turn king makers in one sense and bureaucrats at best in another. The findings of the study show that at enabling investors to know how relevant and reliable the ratings when it comes to inspiring confidence of investors. Rating the company to reflect an overall perception should be made mandatory and effective as every industry has different risk profile. But Credit Rating Agencies gaze at them through the similar lens. This study highlights the need for the benchmark for the ratings and Credit Rating Agencies have to assume some kind of responsibility and accountability for their actions.

Although credit rating agencies play a significant role in guiding investors in making good investment decision, it is often found the some credit rating agencies indulge in wanton manipulation of rating grades in order to arm-twist a company or a sovereign government. There is an urgent therefore to improve the ethical practices adopted by credit rating agencies in order to improve their standards of practice from the point of view of investors, issuers and regulators both at national and at global level. In fact, there is an urgent need to create awareness about the relative importance of credit rating agencies so as to bring confidence in the investors.

#### 4. References

- Carmen M. Reinhart, (2002), "Default, Currency Crises, and Sovereign Credit Ratings," World Bank Economic Review, World Bank Group, vol. 16(2), pages 151-170, August 2002.
- CFA Institute(2009), CFA Centre for Financial Market Integrity Member Poll on Credit Rating Agencies Published by Institute Centre for Financial Market Integrity
- Doron Avramov, Tarun Chordia, Gergana Jostova and Alexander Philipov (2007), "The Journal of Finance", Published by: Wiley for the American Finance Association , Vol. 62, No. 5 (Oct., 2007), Pp. 2503-2520, Stable URL: <http://www.jstor.org/stable/4622342> .Accessed: 15/
- Dr S. Gurusamy and Ramila (2014), A Study on the role of credit rating agencies in India, Kaveripakkam college journal of Management Research, Vol. 4(2), 16-25pp
- Ed DeHaan (2013), "The Financial Crisis and Credibility of Corporate Credit Ratings", Published by University of Washington Libraries: Thesis (Ph.D.), Pp No. 2013. <http://hdl.handle.net/1773/23396>
- Giselle Datz (2004), The Influence of Sovereign Credit Ratings on Policy Making in Developing Countries DatzSource: Third World Quarterly, Vol. 25, No. 2 (2004), Pp. 303-318Published by: Taylor & Francis, Ltd. Stable URL: <http://www.jstor.org/stable/3993683>.
- Hemavathy and Dr. S. Gurusamy (2014), Impact of Domestic gold prices on stock market indices with special reference to Global Financial Crisis - An Empirical Study, Vol X, No. 1, pp. No. 1-8.
- Jens Hilscher and Mungo Wilsonm, "Credit ratings and credit risk: Is one measure enough?", International Business School, Brandeis University, University of Oxford - Said Business School, Published by SSRN journal, year September 18, 2009 ; Last revised: March 8, 2013
- Kaur, and Kuljeet (2012), "Evaluation of working and performance of credit rating agencies in India" Published by Punjabi University- Indian ETD Repository @

INFLIBNET shodhganga, <http://hdl.handle.net/10603/4466>

- Knox, Simon and David Bickerton (2003), "The Six Conventions of Corporate Branding", *European Journal of Marketing*, 37 (7/8), pp. 998-1016.
- Matthias Bodendstedt, Daniel Rusch (2012), The path to impairment: do credit rating agencies anticipate default events of structured finance transactions? *The European journal finance*, 2012, pp. 1-20.
- Sarbjit Singh Bedi, Amit Kumar Lal, Sukhwinder Kaur (2013), A Study of Credit rating potential and awareness among SMEs in Baddi Region of Himachal Pradesh, Published by Prabandhan: *Indian Journal of Management*, Vol 6, No. 3, pp. 40-44
- Shreekant Iyengar (2012), The Credit rating Agencies-Are They Reliable? A Study of Sovereign Ratings, Published by Vikalpa, Volume No. 37, No. 1, January-March 2012 pp. 69-82.

