Perception of Investors towards Indian Commodity Derivative Market In Chennai City

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ABSTRACT ***This study is an attempt to find out the perception of investors towards the Commodity Derivatives Market (CDM) with special reference to Chennai City in India. In this research work, the researcher has tried to find out the expectations of investors and awareness among them about Indian Commodity Derivatives Market, their investment options, Commodity Exchange Preferences, Spot and Future Market Factors, Suggestions to strengthen the scope of the Commodity Derivatives Market, Chennai investors awareness about the Commodity Derivatives Market and various operating nuances being practised in Commodity and Commodity Derivatives Market in India. To conclude, necessary steps are to be implemented towards the suggestions recommended them, there are plenty of scopes for improving the perception level of investors towards Indian Commodity Derivatives Market in Chennai City.***

Key words: CDM, SEBI, SEM, FMC, Factor Analysis, Perception

I. INTRODUCTION

Commodity Derivatives And Market In India

The Indian Derivatives Market is broadly classified into Two types, the first one is Exchange Traded Derivatives and the next one is Over the Counter Derivatives (OTC – Derivatives). The former is offered by National Stock Exchange and Bombay Stock Exchange in India with the formal consent of Securities and Exchange Board of India for financial derivatives contracts but not for commodity derivatives contracts in India for example Nifty futures are by NSE and SENSEX futures are from Bombay Stock Exchange. SCRA – Securities Contracts (Regulation) Act 1956, has banned all kinds of options in 1956 as there were no control over speculative movements in the market, trading, risk management and margining, electronic spot exchanges, regulatory frame work and implications of Goods and services tax on commodity derivatives are clearly explained.

II. REVIEW OF LITERATURE

N. S. Pandey Also p. Kathavarayan (2015), venture inclination towards merchandise advertise Furthermore other wander options(An experimental examination for reference to chose inhabitants clinched alongside Pondicherry), the target of the paper is will take a gander at those investors' inclination towards product showcase Also different venture alternatives, this examination turns out with the bring about shortages that The greater part of the gurus prefers merchandise subsidiaries market for venture choices. Siva rethina mohan Furthermore Aranganathan (2013), An investigation around Investors' Inclination offers Inclination in Indian items Market, looking into each cash related arrangement Also arrange is Hosting its own upsides What's more downsides and the fiscal masters need their specific inclinations for Different arrangements Also arrangements. The true ranges of ventures open to Indian moguls fuse value Market, Derivatives, Bonds, Debentures, merchandise market, also others on, Indian speculators pick different zones Similarly as shown by their distinguishment Also demeanours.

III. RESEARCH METHODOLOGY

This study is about perception of Investors towards Indian commodity derivative markets with special reference to investors of Chennai city, Tamil Nadu, India. The researcher has taken an attempt to find out how Indian commodity derivative market functions, what are the opportunities prevailing and what are the challenges faced by the Indian commodity derivative market with regard to commodities Derivative market in Chennai city, Tamil Nadu, India. A study of this sort is relatively new in India; this market has been flourishing since 2008 even then there is no study which will talk about the commodity derivative market in Tamil Nadu, India, especially in Chennai.

IV. NEED AND SCOPE OF THE STUDY

Thereby the researcher took this as an opportunity to do a research on this recent thirst area which may bring out nuances about commodity derivative market and its complicated market operations for the benefit of people who are being part of it for so many years. In Chennai there are people who have invested their funds in commodity derivatives, but need to know something more than what they know about commodity market and their perception has not been studied before, gave the researcher an opportunity to carry out this research, though there are researches in the similar area of study done in India but not exactly in Chennai that too in the recent years.

As this subject starts with the study of investor behaviour, it studies about the psychology and Organizational behaviour of investors, which means it is a study of behavioural finance. It also covers statistical applications in behavioural studies, thereby it touches behavioural statistics and financial planning, investor's decision towards investment decisions, it studies widely about the

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Indian commodity market, derivatives market, stock market, Asset management Companies, Brokerage Organizations, regulatory authorities, government, different ministries of government, especially the ministry of finance and ministry of consumer affairs and public distribution in India.

This study covers wide area of Indian commodity derivative market particularly about the expectations of Indian investors, the level of awareness about CDM which prevails among the investors and their investment pattern, examine the factors which are determining the spot and future CDM, if possible with the view of the sample investors some constructive steps to improve the scope of the Indian CDM in all possible ways and means, this study covers about its various operations, players involved in trading and investing commodity derivatives in Chennai of Tamil Nadu only for the period of May 2011 to August 2016 only.

4.1 OBJECTIVES OF THE STUDY

1. To study the expectations of Investors towards commodity Derivative Market in Chennai.
2. To study the investor's level of awareness about commodity, Derivatives market in Chennai.
3. To examine the investment pattern of investors of commodity derivatives market in Chennai.
4. To examine the factors influencing spot and futures commodity derivatives market in Chennai.
5. To suggest remedies to strengthen the scope of the Indian commodity derivatives market.

4.2HYPOTHESES FORMED IN THIS STUDY

SEM Hypothesis: Null hypothesis (H0): The hypothesized model has a good fit. Alternate hypothesis (H1): The hypothesized model does not have a good fit.

FRAMEWORK OF ANALYSIS:

SEM Analysis – Structural Equation Modelling

A well-structured questionnaire was prepared to examine and analyse the perceptions of the investors, who have invested their money into the commodity derivatives market. It consists of two sections. The first section consisted of the factor analysis wherein various factors are identified and analysed whether they have got correlations among themselves or not and the second consisted of fitment analysis Test, based on this fitment test, a unique model has been framed in this study. Though the questionnaires were distributed to 650 sample investors who have invested their hard earned money into the commodity derivatives market in the Chennai city from among total six thousand five hundred investors only six hundred fully completed questionnaires were collected and subsequently entered into SPSS
for data analysis and interpretation.

V. RESULTS AND ANALYSIS

The variables used in the structural equation model are

I Observed, endogenous variables

1. Suggestion to strengthen the scope of CDM
2. Expectations of investors on CDM

II Observed, exogenous variables

1. Awareness of investors on CDM
2. Clearinghouse issues
3. Risk associated with derivatives contracts
4. Warehousing issues
5. Exchange Related issues
6. Contractual issues
7. Common issues

I Unobserved, exogenous variables

1. e1: Error term for Risk reduction
2. e2: Error term for Strengthen the scope of CDM
3. e3: Error term for Perception of CDM

Hence a number of variations in the SEM are

Number of variables in your model : 13
Number of observed variables : 10
Number of unobserved variables : 3
Number of exogenous variables : 10
Number of endogenous variables : 3

Indices	Awareness Issues	Risk Associated Issues	Warehousing Issues	Clearing house Issues	Exchange Related Issues	Contractual Issues	Common Issues
Chi-square value	9.662	6.529	4.268	3.313	4.662	14.529	8.325
P value	0.105	0.740	0.085	0.724	0.208	0.340	0.095
GFI	0.995	0.998	0.993	0.997	0.995	0.998	0.993
AGFI	0.982	0.994	0.981	0.993	0.982	0.984	0.978
NFI	0.967	0.991	0.975	0.989	0.955	0.961	0.984
CFI	0.983	0.973	0.988	0.979	0.967	0.955	0.958
RMR	0.056	0.045	0.035	0.085	0.075	0.030	0.069
RMSEA	0.068	0.045	0.053	0.055	0.083	0.063	0.085

Confirmatory Factor Analysis (CFA) of Factors determining the perception of Investors towards Indian CDM

Indices	Risk Reduction	Strengthen CDM	Perception of CDM	Suggested Value
Chi-square value	3.882	14.456	8.345	-
P value	0.135	0.785	0.075	< 5.00 (Hair et al., 1998)
GFI	0.925	0.914	0.975	> 0.00 (Hair et al., 1998)
AGFI	0.967	0.954	0.976	> 0.90 (Hu and Bentler, 1999)
NFI	0.944	0.923	0.966	> 0.90 (Hair et al. 2006)
CFI	0.963	0.947	0.998	> 0.90 (Hu and Bentler, 1999)
RMR	0.066	0.056	0.045	<0.08(Daire et al., 2008)
RMSEA	0.058	0.073	0.063	< 0.08 (Hair et al. 2006)

From the above table Confirmatory Factor Analysis (CFA) of Factors of perception of Investors

towards CDM was that the calculated P value for Risk Reduction Issues were at 0.135, for Strengthening the scope of CDM issues it stood at 0.785, finally with regard to Perception of Investors towards CDM were at 0.075. Which indicates it was a perfect fit. Here Goodness of Fit Index (GFI) value for Risk Reduction Issues were at 0.925, for Strengthening the scope of CDM issues it stood at 0.914, finally with regard to Perception of Investors towards CDM were at 0.975. Which indicates it was a perfect fit. Adjusted Goodness of Fit Index (AGFI) value for Risk Reduction Issues were at 0.967, for Strengthening the scope of CDM issues it stood at 0.954, finally with regard to Perception of Investors towards CDM were at 0.976. Which indicates it was a perfect. Perception of Investors towards CDM it was found that the calculated Normed Fit Index (NFI) value for Risk Reduction Issues were at 0.944, for Strengthening the scope of CDM issues it stood at 0.923, finally with regard to Perception of Investors towards CDM were at 0.966. Which indicates it was a perfect fit. Comparative Fit Index (CFI) value for Risk Reduction Issues were at 0.963, for Strengthening the scope of CDM issues it stood at 0.947, finally with regard to Perception of Investors towards CDM were at 0.998. which indicates it was a perfect. It was found that Root Mean Square Residuals (RMR) value for Risk Reduction Issues were at 0.066, for Strengthening the scope of CDM issues it stood at 0.056, finally with regard to Perception of Investors towards CDM were at 0.045. which indicates it was a perfect. Root Mean Square Error of Approximation (RMSEA) value for Risk Reduction Issues were at 0.058 for Strengthening the scope of CDM issues it stood at 0.073, finally with regard to Perception of Investors towards CDM were at 0.063. Which indicates it was a perfect fit.

Confirmatory Factor Analysis (CFA) of Factors determining the perception of Investors towards Indian CDM

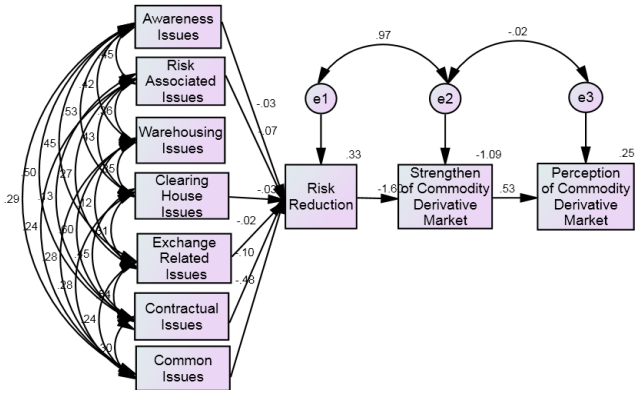
From the above table Confirmatory Factor Analysis (CFA) of Factors of perception of Investors towards CDM was that, the calculated P value for Awareness issues was o.105, for risk associated Issues it stood at 0.740, Warehousing Issues was 0.085, Clearing House Issues was 0.724, Exchange Related Issues were 0.208, Contractual Issues were concerned it was 0.340 and finally with regard to Common Issues the P value stood up at 0.095 all the statements are confirming factor. Here Goodness of Fit Index (GFI) value for Awareness Issues were 0.995, Risk associated Issues were at 0.998, Warehousing Issues was 0.993, Clearing House Issues was 0.997, Exchange Related Issues were 0.995, Contractual Issues were concerned it was 0.998 and finally with regard to Common Issues the GFI value stood up at 0.993 and Adjusted Goodness of Fit Index (AGFI) value for Awareness Issues were at 0.982, Risk Associated Issues were at 0.994, Warehousing Issues were at 0.981, Clearing House Issues were at 0.993, Exchange Related Issues were 0.982, Contractual Issues were concerned it was 0.984 and finally with regard to Common Issues the AGFI value stood up at 0.978 is greater than 0.9 which represent it is a good fit. Perception of Investors towards Indian CDM it was found that the calculated Normed Fit Index (NFI) value for Awareness issues were at 0.967, for risk associated Issues it stood at 0.991, Warehousing Issues was 0.975, Clearing House Issues was 0.989, Exchange Related Issues were 0.955, Contractual Issues were concerned it was 0.961and finally with regard to Common Issues the NFI value stood up at 0.984, indicates that it was a perfect fit. Comparative Fit Index (CFI) value for Awareness issues was 0.983, for risk associated Issues it stood at 0.973, Warehousing Issues was 0.988, Clearing House Issues was 0.979, Exchange Related Issues were 0.967, Contractual Issues were concerned it was 0.955 and finally with regard to Common Issues the CFI value stood up at 0.998 indicates that it was a perfect fit.It was found that Root Mean Square Residuals (RMR) value for Awareness issues were 0.056, for risk associated Issues it stood at 0.045, Warehousing Issues was 0.035, Clearing House Issues was 0.085, Exchange Related Issues were 0.075, Contractual Issues were concerned it was 0.030 and finally with regard to Common Issues the RMR value stood up at 0.095 indicates that it was a perfect fit.Root Mean Square Error of Approximation (RMSEA) value for Awareness issues was 0.068, for risk associated Issues it stood at 0.045, Warehousing Issues was 0.053, Clearing House Issues was 0.053, Exchange Related Issues were 0.083, Contractual Issues were concerned it was 0.063 and finally with regard to Common Issues the RMSEA value stood up at 0.089 which indicates that it was a perfect fit.

Perception Variables in the Structural Equation Model Analysis

			Estimate	S.E.	Standardized Co efficient	C.R.	P
Risk_ reduction	<--	Awareness Issues	0.023	.008	0.035	2.948	0.003**
Risk_ reduction	<--	Risk Associated Issues	0.074	.011	0.074	6.601	<0.001**
Risk_ reduction	<--	Exchange Related Issues	0.040	.019	0.023	2.156	0.031*
Risk_ reduction	<--	Contractual problems	0.056	.007	0.100	7.716	<0.001**
Risk_ reduction	<--	Common Issues	0.157	.009	0.476	16.900	<0.001**
Risk_ reduction	<--	Clearing House Issues	0.065	.022	0.033	2.977	0.003**
Strengthen the scope of CDM	<--	Risk_ reduction	11.528	.737	1.600	15.651	<0.001**
Perception of CDM	<--	Perception of CDM	0.194	.014	0.526	13.768	<0.001**

Note: ** denotes significant at the 1 % level

4.3. Figure Structural Equation Model on Perception of Investors



Here the coefficient of **perception** is 0.450 Speaks to the halfway impact about recognition from claiming moguls ahead CDMs, considering alternate variables Concerning illustration steady. Those assessed sure sign intimates that such impact may be certain that showing abilities might expansion by 0. 450 to each unit expand On observation Furthermore this coefficient quality may be critical toward those 1 % level. The coefficient of **awareness** is 0.008 represents the partial effect of awareness on perception of investors on CDMs, holding the other variables as constant. The estimated positive sign implies that such effect is positive that perception of investors on CDMs would increase by 0.008 for every unit increase in awareness and this coefficient value is not significant at the 5 % level. The coefficient of **risk associated with derivatives contract** is 0.204 represents the partial effect of risk associated with derivatives contract on perception of investors on CDMs, holding the other variables as constant. The estimated positive sign implies that such effect is positive that perception of investors would increase by 0.204 for every unit increase in risk associated with derivatives contract and this coefficient value is significant at the 1 % level. The coefficient of **warehousing issues** is 0.304 represents the partial effect of warehousing issues on perception of investors on CDMs, holding the other variables as constant. The estimated positive sign implies that such effect is positive that perception of investors would increase by 0.304 for every unit increase in warehousing issues resolved and this coefficient value is significant at the 1 % level.

The coefficient of **Exchange related issues** is 1.209 represents the partial effect of exchange related issues on perception on CDMs, holding the other variables as constant. The estimated positive sign implies that such effect is positive that exchange related issues would increase by 1.209 for every unit increase in perception on CDMs and this coefficient value is significant at the 1 % level and The coefficient of **risk reduction** is 0.160 represents the partial effect of risk reduction on perception of investors on CDMs, holding the other variables as constant. The estimated positive sign implies that such effect is positive that risk reduction would increase by every unit increase in perception on CDMs.This coefficient value is significant at the 1 % level.

Strengthen the scope of CDM is 0.160 represents the partial strengthen the scope of CDM on Perception of investors on CDMs, holding the other variables as constant. The estimated positive sign implies that such effect is positive that perception competency marks would increase by every unit increase in perception on CDMs and this coefficient value is significant at the 1 % level.

Perception on CDM is 0.160 represents the partial effect of perception of investors on CDMs competency marks, holding the other variables as constant. The estimated positive sign implies that such effect is positive that perception of investors on CDMs would increase by every unit decrease in overall issues and this coefficient value is significant at the 1 % level.

For the purpose of testing the model fit, null hypothesis and an alternative hypothesis are frame.

HYPOTHESIS

Null hypothesis (H0): The hypothesized model has a good fit.

Alternate hypothesis (H1): The hypothesized model does not have a good fit.

Model fit summary of Structural Equation Model

Indices	Value	Suggested value
Chi-square value	51.095	-
DF	14	-
Chi-square value/DF	3.650	<5.00 (Hair et al., 1998)
P Value	0.472 -to be changed	>0.05 (Hair et al., 1998)
GFI	0.931	> 0.90 (Hu and Bentler, 1999)
AGFI	0.917	> 0.90 (Hair et al. 2006)
jNFI	0.941	> 0.90 (Hu and Bentler, 1999)
CFI	0.922	> 0.90 (Daire et al., 2008)
RMR	0.057	< 0.08 (Hair et al. 2006)
RMSEA	0.079	<0.08 (Hair et al. 2006)

From the above table it is found that the calculated P value is 0.472 which is greater than 0.05 which indicates perfectly fit. Here GFI (Goodness of Fit Index) value and AGFI **(**Adjusted Goodness of Fit Index) value is greater than 0.9 which represent it is a good fit. The calculated CFI **(**Comparative Fit Index) value is 1 which means that it is a perfectly fit and also it is found that RMR (Root Mean Square Residuals) and RMSEA **(**Root Mean Square Error of Approximation) value is 0.000 which is less than 0.10 which indicated it is perfectly fit.

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

From the Structural Equation Modelling, Fit Analysis, it is found that the calculated P value is 0.472 which is greater than 0.05 which indicates perfectly fit. Here GFI (Goodness of Fit Index) value and AGFI **(**Adjusted

Goodness of Fit Index) value is greater than 0.9 which represent it is a good fit. The calculated CFI **(**Comparative Fit Index) value is 1 which means that it is a perfect fit and also it is found that RMR (Root Mean Square Residuals) and RMSEA **(**Root Mean Square Error of Approximation) value is 0.000 which is less than 0.10 which indicated it is perfectly fit.

SUGGESTIONS

Investors must be educated or awareness must be created to reduce or mitigate risks associated with quantity risks and notional value associated risks, as these risks were standing number one and two ranking among the surveyed investors in Chennai city. This study underlines the clearing house issues, if central government addresses all the issues which are associated with clearing houses in India like, delay in clearing, improper responses in the clearing houses, rest of the problems are seamlessly solved in commodity exchanges and in commodity derivatives markets in India. The study pointed out that three core exchange related issues, (Reluctance of exchange people on problem solving, circuit breaker problems, Terminal problems) if the central government or the regulatory bodies properly addresses the issues competently with appropriate measures the commodity exchanges/ commodity derivatives market would be growing like anything in India. The study identifies a lot of contractual problems (Type of contract, ticker symbol, Margin system, basis, Delivery unit, etc.,) in commodity exchanges and commodity derivatives market, if the regulator the central government takes proper steps to solve issues which are associated with contractual problems with commodity exchanges or in the commodity derivatives market. We can see a number of investors coming in and the volume of trade will eventually increase in the years to come, that would invariably increase our country's growth.

This study was encountered with a lot of common issues (knowledge of spot market operations, knowledge about the different players in the market, Liquidity, Transparency in the market etc.) in commodity exchanges and in the commodity derivatives market. If the issues were sorted out appropriately in time, things would be very fine in commodity exchanges and in commodity derivatives markets in India. Suggestions to strengthen the scope of commodity exchanges/commodity derivatives market in India based on the investors' responses Background of promoters (fundamental Analysis) needs to be scrutinized properly that would minimize log of problems associated with commodity exchanges/commodity derivatives market in India. As most of the investors have revealed that they did not want a new regulator to be taken care of the commodity market. Most of the investors felt that the method of executing the commodity derivatives contract to be eyed upon otherwise commodity exchanges or commodity derivatives market could not be transparent and method of operation would be much more difficult only, which might not create a conducive climate for commodity market investors to invest. In order to create a problem free investment climate for commodity market investors, more players need to be encouraged to participate and prices of the commodities must be determined by the Indian players at least for the commodities which are widely purchased /used /produced by the Indian investors, for example Gold price is determined by the gold council in UK, which is neither a producer nor a user or a purchaser in the global bullion market, thereby the price of the gold must be determined by the Indian commodity market in India, as this commodity finds more investors here and volume of transactions are increasing year on year in India, the same kind of price determination should be gradually passed on to other commodities which are either produced more or sold more here in India in the nearby future, that will create sort of edge over other countries commodity exchanges or commodity derivatives market, might attract more foreign investment. As transparency in the commodity derivatives market are not very apparent, it would be better to have a stringent regulator in place to watch out the commodity market operations and commodity exchange operation in India. More suitable technology should be in place to do the transactions in time that would be reducing the speculative operations to a large extent and open to more vibrant investment options in commodity exchanges or in the commodity derivatives market in India.

VI. CONCLUSION

This research was basically intended to find out ways and means to help the farmers in India to get themselves into this commodity derivatives market and get them some benefits, but this study has taken a different direction towards the end, and academically it means to find out whether the various objectives framed are met out or not because in India the cost of farming is drastically increasing and the revenue to the farmers are decreasing steeply. This research seems to be a very vast area of study, wherein a lot of things with regard to commodity market, market operations, various players, marketing nuances, terminologies, technology and international commodity derivatives, derivatives exchanges, volume of trade and potential of market has been understood. The researcher has started to study the various expectations of the investors, and study the level of awareness of commodity derivatives market, and examine the investment pattern of investors, various factors influencing the spot and futures market (derivatives) and looked for suggestions to improvise the commodity derivatives market from its present position. In order to increase the perception of investors towards commodity derivatives market in Chennai city, the people those who are associated with the suggestions made in this research, should start with understanding of the expectations of investors, understanding the expectations of investors will help the people associated with commodity derivatives market, could create some sort of awareness among the investors. Creating awareness will increase the good investment pattern among the investors provided the spot and future commodity market factors are addressed properly and their valuable suggestions have to be considered carefully which in-turn will create the possibility of improving the perception of investors towards commodity derivatives market in India in the days to come.

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