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8. REFERENCES

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- Ghorude, K.N., & Ghorude, K.N. (2009). Micro Finance for Financial Inclusion and Sustainable Rural Development, Southern Economist, 48(1), 47–50. (Two Authors)
- Ghorude, K.N., Ghorude, K.N., & Ghorude, K.N. (2009). Micro Finance for Financial Inclusion and Sustainable Rural Development, Southern Economist, 48(1), 47–50. (More than two Authors)

Books

• Blattberg, R. & Neslin, S. A. (1990). Sales Promotion: Concepts, Methods, and Strategies. Englewood Cliffs, NJ: Prentice Hall.

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Earning Potential of Option Spread Strategies on the Indian Derivatives Market

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Abstract

Options based investment strategies are very popular in investment and portfolio management. Option spreads and combinations are used to develop portfolios with high sensitivity to one or more factors of option prices and low sensitivity to others. In recent years, there has been a rising interest in option strategies in the Indian derivatives market. The presence of covered calls, strangles, straddles, bull and bear spreads have provided an opportunity to investors to exploit expected changes in price, volatility, time to expiration and at the same time, minimizing their sensitivity to other factors. This paper has analysed the earning potential of 4 derivatives option spread strategies namely, Bull Call Spread, Bull Put Spread, Bear Call Spread and Bear Put Spread in the context of Indian Derivatives Market. The analysis has been done on 1-month options using actual historical data from the futures and options segment of National Stock Exchange's primary index, CNX Nifty 50 for a period of 10 years to incorporate all market characteristics. The period ranges from April 01,2006 to March 31, 2016. Monthly returns under all the strategies have been analysed and compared against the traditional equity investment in CNX Nifty 50. The study ignores other market characteristics like market sentiments, macro and micro factors etc. The findings of the research reveal that only Bull-Call spread strategy has earning potential in the Indian derivatives market on both absolute and risk adjusted basis. Other spread strategies have resulted in losses during the same period. The main reason behind such result is the high implied volatility in the Indian stock market and bullish behaviour of Nifty. The importance of this study is the relatively less complex application of option strategies where an investor can apply the strategy without any technical knowledge or calculations.

Keywords: Financial Markets, Financial Derivatives, Options Strategies, Bull Call Spread, Bull Put Spread, Bear Call Spread, Bear Put Spread.

Introduction

Derivatives Defined

A Derivative security is a financial contract whose value is derived from the value of some underlying asset, such as a stock, a commodity, an exchange rate, an interest rate, or even an index of prices. In the Indian context, the Securities Contracts (Regulation) Act, 1956 (SC(R) A) defines "Derivative" to include-

1. A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security.

2. A contract which derives its value from the prices, or index of prices, of underlying securities.

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Derivatives are securities under the SC(R) A and hence the trading of derivatives is governed by the regulatory framework under the SC(R)A.

Stock Options

Stock Options are derivative securities which gives the holder right (but not an obligation) to buy or sell the underlying security at a predetermined price (exercise price or strike price) on or before expiration period.

Option Strategies

Combining any of the four basic kinds of option trades (Long Call, Short Call, Long Put and Short Put) and the two basic kinds of stock trades (long and short) allows a variety of options strategies. There are various types of option strategies such as Covered Call Writing, Protective Put, Money Spread, Time Spread and Calendar Spread, Butterfly, Box Spread and Combination strategies like STRIPs, STRAPs, Straddle, Strangle etc.

Options Spread Strategies

1. Bull Call Spread Strategy - A bull call spread is constructed by buying an ITM call option, and writing (selling) another OTM call option. Often the call with the lower strike price will be ITM while the Call with the higher strike price is OTM. Both calls must have the same expiration date and same underlying security. The net effect of the strategy is to bring down the initial premium cost and breakeven on a Long CallStrategy. This strategy is exercised when investor perceive the market to be moderately bullish or bullish, because the investor will make a profit only when the stock price or index value rises. The maximum loss occurs when the stock price reaches the lower strike price and the maximum profit occurs when the stock price reaches the higher strike price.

2. Bull Put Spread Strategy - A bull put spread can be a profitable strategy when the stock / index is either range bound or rising. The concept of the strategy is to protect the downside of a Put written (sold) by buying a lower strike Put, which acts as an insurance cover for the Put sold. The lower strike Put purchased is OTM and the Put sold is ITM ensuring that the investor has a net receivable premium, because the Put purchased is cheaper than the Put sold. This strategy is equivalent to the Bull Call Spread but is done to earn a net premium and collect an income. The strategy can also be constructed using only OTM Put options where the Put purchased will be far OTM and the Put sold will be near OTM.

3. Bear Call Spread - The Bear Call Spread strategy can be adopted when the investor feels that the stock / index is either range bound or falling. The concept of this strategy is to protect the downside of a Call Sold by buying a Call of a higher strike price to cover the Call sold. As a result, the investor receives a net credit because the Call he buys is cheaper than the Call he sold. The strategy requires the investor to buy OTM call options while simultaneously selling ITM call options on the same underlying stock index. This strategy can also be constructed with only OTM calls with the Call purchased being further OTM strike than the Call written (sold). If the stock or index falls both Calls will expire

worthless and the investor will retain the net credit. If the stock / index rises, then the lower strike price plus the net premium received is the breakeven. The investor makes a profit if the stock or index remains below that level. Otherwise he could make a loss. The difference in the strike prices as reduced by the amount of net premium received is the maximum loss an investor could incur.

4. Bear Put Spread - This strategy requires the investor to buy an ITM (higher) put option and sell an OTM (lower) put option on the same underlying security with the same expiration date. This strategy creates a net cost for the investor as the Put bought is costlier than the Put sold. The net effect of the strategy is to reduce the cost and raise the breakeven on the traditional Long Put. The strategy needs a bearish outlook since the investor will earn only when the stock price or the index falls. The bought Put options will cap the investor's downside. While the Put options sold will reduce the investors costs, risk and raise breakeven point (from Put exercise point of view). If the stock price closes below the lower strike price on the expiration date, then the investor maximizes his profits. On the other hand, if the stock price rises above the higher strike price at the expiration date, the net premium lost is the maximum loss incurred by the investor as both options will expire worthless.

Review of Literature

Merton, Scholes and Gladstein (1978) wrote one of the first papers about option strategies. They wanted to show how investors could benefit from the use of option strategies, which at that time became massively available. The writers concluded from the following results that the Covered Call strategy will do best when the market is stable. Furthermore, they conclude that the buying the strategy will do best when the market is very volatile. Trennepohl and Dukes (1981) suggested that using derivatives options trading strategies could lead to improved and more stable returns. The study also concluded that OTM options are more preferred over ITM options by investors. Chaput and Ederington (2002) found that option spread and combination strategies accounted for over 55% of large trades (trades of 100 contracts or more) in the Eurodollar options market and almost 75% of the trading volume due to large trades. Their results confirmed that traders use spreads and combinations to construct portfolios which are highly sensitive to some risk factors and much less sensitive to other risk factors. The most popular combination designs are those yielding portfolios which are quite sensitive to volatility and less sensitive to directional changes in the underlying asset value – though they are often not completely delta neutral. Sandagdorj (2005) evaluated risk management strategies in the copper market. The basic options strategies such as bull spreads, bear spreads and butterfly spreads, which are created by using both call and put options are evaluated. One of the sub-studies of the research was the valuation of Asian call and put options. This is because option traders, copper producers and consumers need to understand how theoretical options are valued and how much market observed option values are biased from their theoretically determined values.

Santa-Clara and Saretto (2009) observed that in general naked calls deliver positive returns but this comes with high volatilities. Covered Call positions provide the same positive average returns as the underlying stocks but with lower risk than the underlying stocks. Protective Puts, a long position in

the stock and a long position in the put option, have lower returns than Covered Calls but also have lower volatilities.Borkholder et al. (2011) used the strategy Short Strangle with Bull Put and Bear Call Spreads. Their results showed more realistic returns. Optimal policies have return over 900% over the years 2007 through 2009. They also determined the optimal values of several parameters such as days, premium, Bear Call increment, Bull Put increment. Shah (2015) tested the bull call debit spread strategy on Nifty Index Options over a 6-year period and found the returns to be stable and significantly high. Lot sizes existing at the time of the period, however, were ignored in the study.

Scope of the Study

This paper presents a comparative analysis of 4 Options spread strategies, namely, Bull-Call Spread, Bull-Put Spread, Bear-Call Spread, Bear-Put Spread against its variation evaluate their performance against traditional investment in Nifty baskets. This paper analyses the above strategies in Futures and Option Segment of the CNX Nifty 50 index of the National Stock Exchange of India.

CNX Nifty 50 Index

The CNX NIFTY 50 index is National Stock Exchange of India's benchmark stock market index for Indian equity market. Nifty is owned and managed by India Index Services and Products Ltd. (IISL), which is a wholly owned subsidiary of the NSE Strategic Investment Corporation Limited.

NIFTY 50 Index has shaped up as the largest single financial product in India, with an ecosystem comprising: exchange traded funds (onshore and offshore), exchange-traded futures and options (at NSE in India and at SGX and CME abroad), other index funds and OTC derivatives (mostly offshore). NIFTY 50 is the world's most actively traded contract. The NIFTY 50 covers 22 sectors of the Indian economy and offers investment managers exposure to the Indian market in one portfolio. The base value of the index was set at 1000, and a base capital was 2.06 trillion.

Trading in derivative contracts based on Nifty 50. The National Stock Exchange of India Limited (NSE) commenced on June 12, 2000. The futures contracts on the NSE are based on the Nifty 50. The exchange introduced trading on index options based on the Nifty 50 on June 4, 2001. The CNX Nifty is professionally maintained and is ideal for Derivatives trading.

Research Method

Nature of Research

This research is exploratory in nature. The CNX Nifty 50 index has been selected as the sample for this study. The entire study is based on secondary data.

Collection of Data

For Spot prices, Futures prices, Strike prices and Option prices, the researcher has referred to historical data section of NSE's official website www.nseindia.com

Period of Study

The paper studies the profit potential of the above-mentioned strategies in the above index for a period of 10 years (120 Monthly contracts) starting from April 1, 2006 and to March 31, 2016. The

study has divided the above period into two sub periods, Sub Period 1 refers to the period before the global financial crisis (From April 1, 2006 to September 25, 2008) and Sub Period 2 refers to the period after the global financial crisis (From October 31st, 2008 to March 31st, 2016). The period from September 26, 2008 to October 30, 2008 has not been included in both the sub periods so as to eliminate the effect of the global financial crisis on the two sub periods.

Methodology

For all the strategies covered in the study, the first contract is entered on April 4, 2006 with a lot size of 100 Nifty baskets. Options as relevant to each strategy are bought/sold at the beginning of each contract. Following are the details of options with respect to each strategy

- For Bull Call Spread
 - o 1-month nearest ITM call options are bought and 1-month nearest OTM call options are sold at the beginning of each contract period at the opening price as per the relevant lot size.
- For Bear Call Spread
 - o 1-month nearest ITM call option is sold and 1-month nearest OTM call option is bought at the beginning of the period at the opening price as per the relevant lot size. The starting period of the first contract is April 4, 2006 with a lot size of 100 Nifty baskets
- For Bull Put Spread
 - o 1- month nearest ITM Put is sold and 1-month nearest OTM put option is bought at the beginning of the period at the opening price as per the relevant lot size.
- For Bear Put Strategy
 - o 1-month nearest OTM put is sold and 1-month nearest ITM put is bought at the beginning of each contract period at the opening price as per the relevant lot size.

For all the strategies, at the end of each expiry date, if both the options expire in the money then they will be exercised and settled in cash. If they expire out of the money, there will be no payoffs as the options will expire worthless. If the settlement price falls between the two strike prices at the expiry of the options, then the ITM option will be exercised and the payoff will be settled in cash while the OTM option will be allowed to expire worthless.

For evaluating the performance of Nifty during the period for comparison purposes following methodology was used

- For Investment in Nifty baskets
 - o At the beginning of each contract, Nifty baskets, as relevant to the lot size prevalent in the Futures and Options Market, are purchased at the opening price
 - o At the options expiry date, the baskets are sold and profits/losses thereof are recorded.

o The same methodology has been applied to all the 120 contracts covered under the study period

Lot Size

The actual lot sizes have been used as prevalent in a month.

- a. Lot size of 100 for contracts expiring on April 27, 2006 to February 22, 2007
- b. Lot size of 50 for contracts expiring on March 29, 2007 to October 30, 2014
- c. Lot size of 25 for contracts expiring on November 29, 2014 to October 29, 2015
- d. Lot size of 75 for contracts expiring on November 29, 2015 to March 31, 2016

Assumptions of the Study

- 1. For all the contracts bought or sold, the ATM strike price for call/put option is assumed to be the price which is closest the opening price of Nifty basket as on the beginning date of each period as it is not always equal to the opening price of the nifty baskets. A spread of 50 points is kept to identify the OTM and ITM strike prices. The strike price which is 50 points above the ATM strike priceis considered to be the nearest OTM price and the strike price which is 50 points below it is considered to be the nearest ITM price. However, in 53 contracts expiring from May 28, 2005 to September 26, 2013 the spread between ITM, ATM and OTM strike prices is 100 points as no strike prices with spread of 50 points are available during those contracts.
- 2. The new contract is bought the next working day when the last contract has expired
- 3. Brokerage has been assumed to be 0.01% of the contract value of options. Also for calculating returns on traditional Nifty investment brokerage has been assumed to be 0.01% of the total purchase value.
- 4. For options that are written (sold), initial margin amount has been assumed to be 10% of the contract value of option. The margin is invested at the beginning of the contract and recovered at the end of the contract.
- 5. The risk-free rate of return for the entire period under study has been assumed at 8% p.a. with reference to average Indian T-Bill Rate
- 6. The 10-year period selected for the study is assumed to be sufficient to incorporate all market characteristics and scenarios.

Limitations of the Study

- 1. The study is based on only one index of the National Stock Exchange of India, CNX Nifty 50
- 2. Only those options which have expiry of one month are written.
- 3. Options expiring after a period of more than one month have been ignored as quotes are not available for them for the entire period under study.

- 4. The above strategies have been constructed by using ITM and OTM options with 50 points spread from ATM strike price. Other variants using ATM and OTM options and ITM and ATM options can also be constructed which are not covered in the study. Far OTM and far ITM strike prices are also not considered.
- 5. Early exercise of options has not been considered as only European Options are available in the Nifty Futures and Options segment.
- 6. During the study, it was observed that on some days, a nearest OTM strike price would have no opening option prices, therefore on those dates the settlement price has been used instead of the opening price.
- 7. Securities Transaction Tax (STT) as applicable in the Indian market has not been considered in the above study.
- 8. The fact that the bhav-copies available show the first traded price of the contract as the open price, and all the contracts may not have traded together, there remains a probability of price-discrepancy. The study has proceeded with the opening price as it is because the futures and options segment of Nifty 50 is highly liquid.
- 9. Interest on margin money is not considered as it is assumed that owner's capital is employed.

Analysis of Data

Return

The Appendix A at the end of the paper presents the monthly return under each strategy at the end of each contract. Table 1 provides details about annual returns of each strategy covered in the study and performance of long term equity investment in Nifty baskets is also provided for comparison. The table provides details about the returns under each strategy for each sub period as well. It was found that the most profitable strategy was the Bull-Call spread strategy. It was the only strategy among the four which resulted in a positive CAGR. The CAGR under the Bull-Call spread strategy was 9.17%. The returns under the other strategies were negative as the Bull-Put spread strategy returned an annual CAGR of -7.15%, the Bear-Call spread strategy provided an annual CAGR of -36.15% and the Bear-Put spread strategy provided a negative return of 11.31%. The long-term equity investment in Nifty baskets for the same period provided an annual return of 6.58% which suggests us that only Bull-Call spread strategy provided with positive excess return. The return of the one month period between Sep 26, 2008 to Oct 29, 2008 is also given to highlight the impact of recession and on each of the strategies. All the returns are annualized.

| | Long Nifty Basket Investment | Bull Call Spread | Bull Put Spread | Bear Call Spread | Bear Put Spread |
|--------------------------|---------------------------------|---------------------|--------------------|---------------------|--------------------|
| CAGR for Sub Period 1 | 6.83% | 16.56% | -6.45% | -34.92% | -2.26% |
| 26-09-2008 to 39-10-2008 | -99.36% | -44.50% | -85.88% | 79.27% | 290.35% |
| CAGR for Sub Period 2 | 12.79% | 7.60% | -6.50% | -38.09% | -15.58% |
| CAGR for Entire Period | 6.58% | 9.17% | -7.95% | -36.75% | -11.31% |

Table 1

Risk

Table 2 provides the details about the annual standard deviation under each of the strategies along with the same for long-term investment in Nifty baskets. The annual standard deviation under all the strategies was higher than the long-term equity investment in Nifty baskets. Among the 4 strategies the lowest standard deviation was that of the Bull-Call Spread strategy which stood at 39.28%. The annual standard deviation of the long-term investment in Nifty baskets during the same period was 23.68%. The details about annual standard deviation about each sub-period is also provided.

| Table 2 | | | | | | |
|---------------------------|---------------------------------|---------------------|--------------------|---------------------|--------------------|--|
| | Long Nifty Basket Investment | Bull Call Spread | Bull Put Spread | Bear Call Spread | Bear Put Spread | |
| St.Dev. for Sub Period 1 | 23.64% | 39.45% | 57.07% | 50.04% | 45.36% | |
| St.Dev. for Sub Period 2 | 19.98% | 39.35% | 59.65% | 61.79% | 46.30% | |
| St.Dev. for Entire Period | 23.68% | 39.28% | 58.98% | 58.85% | 46.07% | |

Risk-Return Analysis

Table 3 provides details about the Sharpe Ratio of returns under each strategy. Sharpe Ratio measures the amount of excess return per unit of annual standard deviation. For calculating excess return, the risk-free rate was assumed to be 8%. Using Sharpe ratio for all the above strategies it was found that only Bull-Call spread strategy was profitable on risk adjusted basis. Even the long-term investment in Nifty Baskets provided negative risk adjusted returns which reveal that Bull-Call spread strategy has outperformed the long-term investment in Nifty baskets on risk adjusted basis as well.

| Table 3 | | | | | | |
|-----------------------|---------------------------------|---------------------|--------------------|---------------------|--------------------|--|
| | Long Nifty Basket Investment | Bull Call Spread | Bull Put Spread | Bear Call Spread | Bear Put Spread | |
| CAGR for Sub Period 1 | 6.83% | 16.56% | -6.45% | -34.92% | -2.26% | |
| Number of Contracts | 120 | 120 | 120 | 120 | 120 | |
| CAGR | 6.58% | 9.17% | -7.95% | -36.75% | -11.31% | |

| Annual Standard Deviation | 23.68% | 39.28% | 58.98% | 58.85% | 46.07% |
|---------------------------|--------|--------|--------|--------|--------|
| Risk Free Rate | 8% | 8% | 8% | 8% | 8% |
| Sharpe Ratio | -0.06 | 0.03 | -0.27 | -0.76 | -0.42 |

Correlation

Table 4 presents the correlation between the monthly returns under each strategy and it also correlate them with the monthly returns under long-term investment in Nifty baskets.

Table 4

| | Investment in Nifty | Bull Call Spread | Bull Put Spread | Bear Call Spread | Bear Put Spread |
|--|------------------------|---------------------|--------------------|---------------------|--------------------|
| CAGR for Sub Period 1 | 6.83% | 16.56% | -6.45% | -34.92% | -2.26% |
| Investment in Nifty | 1 | .716** | .693** | 724** | 667** |
| Bull Call Spread | .716** | 1 | .891** | 967** | 864** |
| Bull Put Spread | .693** | .891** | 1 | 922** | 978** |
| Bear Call Spread | 724** | 967** | 922** | 1 | .888** |
| Bear Put Spread | 667** | 864** | 978** | .888** | 1 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | |

Correlations

The table shows that all the correlations are significant at the 0.01 level. As found in most literature, there exist positive correlation between Nifty investment and both the bullish strategies and negative correlation between the Nifty and bearish strategies. The highest positive correlation of 0.891 exists between the two bullish strategies that is, the Bull Call spread and the Bull Put spread strategy. The highest negative correlation of -0.978 exist between the Bull Put spread and the Bear Put spread strategies.

Findings

- 1. The spread strategies using derivatives options on Nifty index are not that profitable as various literature suggest.
- 2. Only Bull-Call spread strategy has a profit potential in the Indian derivatives market as it was the only strategy having positive CAGR. It has outperformed Nifty baskets investment on both absolute and risk adjusted basis. This performance of the Bull-Call strategy in the Indian derivatives market is consistent with most of the literature.
- 3. The other 3 strategies namely, Bull Put spread, Bear Call Spread and Bear Put spread all resulted in negative CAGR which shows the lack of earning potential of these strategies in the Indian derivatives market.

- 4. However, comparing the performance during the sub-periods, the long-term investment in Nifty baskets outperformed the returns under the Bull-Call spread strategy on both absolute and risk adjusted basis in the sub-period 2 and Bull-Call strategy out performed Nifty investment in sub-period 1.
- 5. All the correlations between the returns of various strategies were found to be significant at 0.01 level of significance.
- 6. The correlations were all above 0.5 or below -0.5 which shows the relatively high positive or high negative correlation of returns between the strategies covered during the study.
- 7. Of all the strategies covered under the study, the only strategy which provided returns more than the risk-free rate was the Bull-Call spread strategy. Even long-term investments in the Nifty baskets provided returns with a negative Sharpe ratio.

Suggestions

- 1. The option spread strategies are easy to understand and implement for a normal retail investor.
- 2. Bull-Call spread strategies are a profitable strategy in the Indian derivatives market as it provides return in excess of the risk-free rate and also has a positive Sharpe ratio.
- 3. The Indian derivatives market is suitable for systematic speculation as observed by the performance of the above strategies.
- 4. The study is done with a systematic but mechanical method. If human intelligence and knowledge can be used along with analysis, news are used, the net profit can be considerably increased.
- 5. Bearish spread options strategies are not suitable for Indian derivatives market as revealed by the above study that both during the sub-periods as well the strategies resulted in losses. This highlights the lack of profit potential of these strategies.

Conclusion

This paper investigates the return and volatility characteristics of option spread strategies in the Indian Derivatives market. All the spread strategies are very basic and easy to apply options strategies. The analysis focuses on two key efficiency sections of the above strategies, risk–return analysis and performance under different market conditions with the analysis being done on pre and post the global economic crisis period. From both the perspective, Bull-Call spread strategy has out-performed other spread strategies as well as the long-term equity investment in Nifty baskets. The cause for the profit is the amount of loss when an investor goes wrong against the amount of profit if he goes right. Other option spread strategies when applied systematically have resulted in losses as revealed by the above strategy.

It is possible to conclude that the Bull-Call spread is a superior investment strategy in Indian

derivatives market and one must be aware of market conditions before investing in these strategies. Another element concerning this strategy is Security Transaction Tax (STT), which this study does not include, and investors must be careful, since it will affect the returns of the strategies.

References

- Borkholder, B., Dickerson, M., Garg, S., & Knutsen, A. (2011). *Determination of Optima Optional Investment Strategy*. Research, George Mason University, Systems Engineering and Operations Research Department, Capstone.
- Merton, R. C., Scholes, M. S., & Gladstein, M. L. (1978). *The Returns and Risk of Alternative Call Option Portfolio Investment Strategies* Journal of Business, 183-242.
- Sandagdorj, B. (2005). *Price Risk Management in the Copper Market Using Commodity Derivatives and Options Strategies,* Doctoral dissertation, Michigan Technological University.
- Santa-Clara, P., Saretto, A. (2009) *Option Strategies: Good Deals and Margin Calls*. Journal of Financial Markets, 12(3), 391-417.
- Shah, C. B. (2011). *A Study on back testing of Bull CallDebit spread strategy on Nifty Index Options*. IOSR Journal of Business and Management (IOSR-JBM), 72-80.
- Trennepohl, G. L., Dukes, W. P. (1981). An Empirical Test of Option Writing and Buying Strategies Utilizing In-The-Money and Out-Of-The-Money Contracts. Journal of Business

Finance & Accounting, 8(2), 185-202.

Bibliography

- Chance, D. M., & Brooks, R. (2015). Introduction to Derivatives and Risk Management. Cengage Learning.
- Ederington, L. H., Chaput, J. S. (2002, May). *Option Spread and Combination Trading in University of Otago Department of Finance Seminar Series.*
- Gupta, S. L. (2005). *Financial Derivatives: Theory, Concepts and Problems*. PHI Learning Pvt. Ltd.
- Hull, J. C. (2006). Options, Futures, and Other Derivatives. Pearson Education India.

Webliography

- www.nse-india.com
- www.moneycontrol.com
- www.jstor.org



Appendices:

APPENDIX A- RETURNS UNDER EACH STRATEGY FOR EVERY CONTRACT

| Expiry Date of | Nifty Returns | Bull Call | Bull Put | Bear Call | Bear Put |
|----------------|---------------|------------------|-----------------|------------------|-----------------|
| the Contract | | Spread | Spread | Spread | Spread |
| 27-04-2006 | 1.01% | 9.57% | 9.48% | -14.50% | -8.53% |
| 25-06-2006 | -9.40% | 0.08% | -17.93% | -0.49% | 13.90% |
| 29-06-2006 | -5.66% | -13.71% | -20.60% | 19.03% | 15.96% |
| 27-07-2006 | 5.43% | 7.06% | 11.40% | -12.52% | -9.90% |
| 31-08-2006 | 8.10% | 16.46% | 35.81% | -22.40% | -21.64% |
| 28-09-2006 | 4.62% | 7.07% | -16.99% | -11.56% | 26.07% |
| 29-09-2006 | 2.95% | 9.86% | 9.15% | -14.59% | -8.28% |
| 30-11-2006 | 7.55% | 8.02% | 11.86% | -12.18% | -10.15% |
| 28-12-2006 | 0.38% | 1.28% | 1.58% | -2.31% | -1.72% |
| 25-01-2007 | 4.43% | 8.04% | 7.88% | -11.80% | -7.32% |
| 22-02-2007 | -2.61% | -14.77% | -15.13% | 20.99% | 12.18% |
| 29-03-2007 | -6.13% | -15.59% | -15.85% | 22.73% | 12.81% |
| 26-04-2007 | 10.27% | 12.59% | 10.74% | -16.86% | -9.39% |
| 31-05-2007 | 2.72% | 8.35% | 4.21% | -11.80% | -4.34% |
| 28-06-2007 | -0.33% | -5.82% | -9.13% | 7.42% | 7.67% |
| 26-07-2007 | 7.88% | 8.48% | 12.10% | -11.82% | -10.27% |
| 30-08-2007 | -4.47% | -11.07% | -12.24% | 14.04% | 9.70% |
| 27-09-2007 | 13.32% | 12.86% | -7.27% | -16.01% | 8.24% |
| 25-10-2007 | 11.46% | 29.27% | 10.60% | -26.03% | -9.24% |
| 29-11-2007 | 1.26% | 7.12% | 9.36% | -9.29% | -8.36% |
| 27-12-2007 | 7.94% | 4.83% | 6.32% | -6.72% | -6.06% |
| 31-01-2008 | -15.50% | -9.99% | 1.73% | 12.20% | -1.57% |
| 28-02-2008 | 2.81% | 7.54% | 1.73% | -9.99% | -2.09% |
| 27-03-2008 | -8.60% | -11.31% | -9.63% | 14.40% | 7.62% |
| 24-04-2008 | 3.52% | 15.02% | 27.46% | -17.21% | -18.30% |
| 29-05-2008 | -3.28% | -10.32% | -25.01% | 12.78% | 28.82% |
| 26-06-2008 | -10.90% | -9.42% | -15.74% | 11.38% | 13.93% |
| 31-07-2008 | 0.41% | 10.36% | 43.69% | -12.83% | -22.56% |
| 28-08-2008 | -2.71% | -10.36% | -9.57% | 12.90% | 6.90% |
| 25-09-2008 | -2.84% | -13.76% | -17.88% | 18.95% | 15.59% |

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| 29-10-2008 | -34.36% | -4.79% | -15.05% | 4.98% | 12.02% |
|------------|---------|---------|---------|---------|---------|
| 27-11-2008 | 2.08% | 1.41% | -19.95% | -3.67% | 34.15% |
| 25-12-2008 | 4.06% | 11.29% | 19.74% | -18.91% | -15.13% |
| 29-01-2009 | -4.70% | -14.49% | -21.78% | 20.66% | 16.25% |
| 26-02-2009 | -1.36% | -6.93% | -8.69% | 10.50% | 6.23% |
| 26-03-2009 | 10.65% | 18.88% | 33.45% | -26.24% | -20.88% |
| 30-04-2009 | 12.81% | 3.59% | 10.77% | -7.08% | -9.46% |
| 28-05-2009 | 24.68% | 11.93% | 32.99% | -30.38% | -21.06% |
| 25-06-2009 | -2.28% | -10.35% | -15.35% | 12.88% | 12.75% |
| 30-07-2009 | 7.72% | 17.35% | 26.16% | -31.11% | -18.14% |
| 27-08-2009 | 2.55% | 15.09% | 16.91% | -25.18% | -12.85% |
| 24-09-2009 | 6.36% | 16.67% | 25.04% | -27.58% | -17.56% |
| 29-10-2009 | -4.71% | -15.89% | -26.08% | 23.85% | 18.43% |
| 26-11-2009 | 5.36% | 12.11% | 19.52% | -22.07% | -14.85% |
| 31-12-2009 | 3.92% | 18.67% | 25.31% | -28.16% | -17.65% |
| 28-01-2010 | -6.42% | -17.19% | -26.67% | 26.85% | 19.92% |
| 25-02-2010 | -0.13% | -1.62% | -16.53% | 1.76% | 12.57% |
| 25-03-2010 | 8.27% | 16.87% | 25.23% | -26.89% | -17.62% |
| 29-04-2010 | -0.12% | -7.46% | -10.26% | 10.90% | 6.89% |
| 27-05-2010 | -4.78% | -15.92% | -25.46% | 23.85% | 18.82% |
| 24-06-2010 | 6.29% | 13.65% | 19.44% | -23.14% | -14.78% |
| 29-07-2010 | 1.66% | 14.46% | 15.86% | -23.00% | -12.76% |
| 26-08-2010 | 1.29% | 11.15% | 13.86% | -17.60% | -10.74% |
| 30-09-2010 | 9.84% | 14.89% | 19.49% | -22.85% | -14.77% |
| 28-10-2010 | -0.71% | -4.71% | -3.58% | 6.83% | 2.35% |
| 25-11-2010 | -3.68% | -13.72% | -23.82% | 19.10% | 18.94% |
| 30-12-2010 | 4.69% | 11.87% | 14.97% | -18.89% | -12.19% |
| 28-01-2011 | -8.20% | -15.07% | -23.31% | 21.83% | 18.56% |
| 24-02-2011 | -6.26% | -15.78% | -23.41% | 23.48% | 17.35% |
| 31-03-2011 | 9.64% | 12.13% | 19.49% | -20.43% | -14.78% |
| 28-04-2011 | -0.85% | -5.10% | -8.07% | 7.54% | 6.11% |
| 26-05-2011 | -6.40% | -14.47% | -22.06% | 20.63% | 16.32% |
| 30-06-2011 | 4.32% | 13.74% | 17.50% | -21.95% | -13.69% |
| 28-07-2011 | -3.82% | -13.75% | -22.97% | 19.20% | 17.11% |
| | | | | | |

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| 25-08-2011 | -11.67% | -14.69% | -27.10% | 21.13% | 21.63% |
|------------|---------|---------|---------|---------|---------|
| 29-09-2011 | 3.64% | 14.09% | 19.38% | -24.40% | -14.77% |
| 25-10-2011 | 4.04% | 14.30% | 23.00% | -23.85% | -16.57% |
| 24-11-2011 | -8.79% | -18.35% | -26.84% | 29.79% | 20.13% |
| 29-12-2011 | -1.80% | -12.73% | -18.46% | 22.11% | 13.28% |
| 25-01-2012 | 10.69% | 16.26% | 24.37% | -27.17% | -17.26% |
| 23-02-2012 | 5.11% | 14.58% | 22.96% | -23.45% | -16.54% |
| 29-03-2012 | -1.71% | -12.89% | -23.46% | 26.53% | 16.16% |
| 26-04-2012 | -0.34% | -4.23% | -7.83% | 6.38% | 5.70% |
| 31-05-2012 | -5.10% | -16.20% | -25.46% | 24.50% | 18.45% |
| 28-06-2012 | 4.85% | 11.01% | 20.74% | -20.31% | -15.47% |
| 26-07-2012 | -2.86% | -14.22% | -20.87% | 20.23% | 13.59% |
| 30-08-2012 | 3.72% | 13.26% | 22.66% | -22.34% | -16.40% |
| 27-09-2012 | 6.63% | 14.37% | 22.22% | -22.91% | -16.17% |
| 25-10-2012 | 0.36% | 0.51% | -0.67% | -1.25% | 0.15% |
| 29-11-2012 | 2.49% | 13.47% | 17.36% | -20.86% | -13.59% |
| 27-12-2012 | 0.58% | 7.21% | 6.05% | -11.79% | -5.40% |
| 31-01-2013 | 2.51% | 11.63% | 17.01% | -18.41% | -13.38% |
| 28-02-2013 | -5.76% | -17.56% | -24.62% | 27.58% | 19.97% |
| 28-03-2013 | -0.35% | -13.46% | -18.82% | 26.77% | 18.33% |
| 25-04-2013 | 3.84% | 13.07% | 17.59% | -20.43% | -13.72% |
| 30-05-2013 | 3.80% | 14.27% | 16.87% | -21.21% | -13.30% |
| 27-06-2013 | -6.83% | 10.62% | -20.09% | 19.17% | 14.81% |
| 25-07-2013 | 2.75% | 12.34% | 12.50% | -19.63% | -10.65% |
| 29-08-2013 | -8.91% | -16.82% | -23.51% | 25.81% | 18.28% |
| 26-09-2013 | 8.78% | 14.16% | 16.57% | -22.39% | -13.16% |
| 31-10-2013 | 6.66% | 4.54% | 10.28% | -6.29% | -9.00% |
| 28-11-2013 | -3.15% | -9.66% | -8.18% | 11.68% | 6.64% |
| 26-12-2013 | 2.87% | 5.26% | 6.97% | -7.03% | -6.57% |
| 30-01-2014 | -3.48% | -8.46% | -10.97% | 9.87% | 9.58% |
| 26-02-2014 | 2.57% | 6.71% | 6.18% | -8.58% | -5.94% |
| 27-03-2014 | 6.64% | 5.47% | 5.86% | -7.20% | -5.68% |
| 24-04-2014 | 2.13% | 5.56% | 5.51% | -7.17% | -5.39% |
| 29-05-2014 | 6.04% | 5.37% | 6.64% | -6.91% | -6.30% |
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| 26-06-2014 | 3.29% | 4.98% | 6.51% | -6.39% | -6.20% |
|------------|-------|-------|-------|--------|--------|
| 31-07-2014 | 2.76% | 4.14% | 5.68% | -5.43% | -5.52% |
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Emotional Intelligence of Employees at Workplace – A Comparative Study of Manufacturing and Service Sector

Priyam Prabhakar*, Rajeev Shukla**

Abstract

Present study analyzes gender effect on emotional intelligence of employees at workplace and a comparative study between the employees of manufacturing and service sector was done. Stratified and purposive sampling technique was used and Sample size of 502 respondents working in manufacturing and service sector of Indore and Dewas region were taken for the study. Emotional intelligence of employees was evaluated through the Structured questionnaire on emotional intelligence developed by Bradberry and Greaves (2003) based on Goleman's Refinement model of Emotional Intelligence (2001), stating four dimensions of Emotional Intelligence namely Self Awareness, Self-Management, Social Awareness and Relationship Management. Two-way ANOVA test was used to find the individual as well as interaction effect of gender of employees and nature of organization on emotional intelligence was found to be significant but the individual effect of gender of employees on emotional intelligence of employees was not found to be significant, Also the Interaction effect of nature of organization and gender of employees was not found to be significant, which shows that irrespective of the nature of organization intelligence was not found to be significant.

Keywords: Emotional Intelligence, Manufacturing Sector, Service Sector.

Introduction

The system of life and organizations is fluid, dynamic, and potentially self – renewing, where employees are learning to "go with the flow", to accept the inevitable changes and also to recognize such changes as a potential source of energy. These profound changes cannot meet without addressing the deepest thoughts and feelings of Indian executives and requires the executive to open up the heart and deal with the emotions. Concept of Emotional intelligence is gaining popularity over the time globally as well as in India prominently by corporate sector and considered as an important and essential behavioral skill needed by employees these days for ensuring personal as well as professional growth and survival in dynamic and challenging job environment. Abraham and Rebecca (1999) claimed that emotionally intelligent individuals are more skilled to cope with life activities and they have productive thinking which often includes affective awareness.

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Concept and Components of Emotional Intelligence

John Mayer and peter Salovey coined the term called "Emotional Intelligence". Daniel Goleman developed the term of emotional intelligence in his book in 1995's .The book was under the title: Why It Can Matter More Than IQ for Character, Health and Lifelong Achievement popularized this term in respect to the organization context. According to Goleman (1998) "Emotional intelligence is the capacity for recognizing one's own feelings and those of others, for motivating oneself, and for managing emotions well in oneself and in their relationships. Emotional intelligence describes abilities distinct from, but complementary to, academic intelligence or the purely cognitive capacities measured by IQ".

Goleman proposed the new mixed model of emotional intelligence prepared in terms of performance also called as Goleman personality model of emotional intelligence which integrates an individual's abilities and personality and applying their corresponding effects on performance in the workplace. Goleman's revised model outlines four main constructs comprising 18 competencies of emotional intelligence namely:

Self-Awareness : Self-Awareness is the ability to read one's emotions and recognize their impact while using gut feelings to guide decisions. Self-awareness is the key to realizing one's own strengths and weaknesses. Individuals with accurate Self-Awareness are aware of their competences which mainly include self-confidence, self-assessment and emotion handling.

Self-Management : Self-Management involves controlling one's emotions and impulses and adapting to changing circumstances. Superior performers demonstrate this competence at work place and create immense results (Spencer and Spencer, 1993).

Social-Awareness : Social-Awareness includes the ability to sense, understand, and react to other's emotions while comprehending social networks.

Relationship Management : Relationship management inculcates set of competencies which include essential social skill, analyzing and influencing others and inducing desirable responses in others. Effective relationship management helps in developing others which is a hallmark of superior manager.

Emotional intelligence is a set of competencies, which direct and control one's feelings towards work and performance at work. These set of competencies are the ability of the individual to control and manage his or her moods and impulses on the job. Knowing one's emotions and feelings as they occur, and tuning one's self to the changed situation requires competencies of emotional maturity and emotional control and self- awareness which are essential components of emotional intelligence. Emotional Intelligence does not respect the gender. The popular belief is that, women are not more emotionally intelligent than men but they are emotionally intelligent in different ways. An analysis of emotional Intelligence was found in thousands of men and women which showed that women, on average, are moreself-aware, empathic and are more adept interpersonally. Men, on the other hand, are moreself-confident, optimistic, and adaptable. It was found that men are also able to handle stress better than women. Insimilarities exist than differences. Some men are empathetic as the most interpersonally sensible women are, while some women are just as able to withstand stress as the most emotionally resilient men.

Review of Literature

Goleman (1995) and Bar-On (1997) claimed that males and females are different in their emotional intelligence profile. To be more specific, some empirical studies found that females have higher level of emotional intelligence in compare with males (Mayer and Geher, 1996; Mayer et al. 1999; Mandell and Pherwani, 2003). King (1999), Sutarso (1999), Wing and Love (2001) and Singh (2002) revealed that females have higher emotional intelligence than that of males. In 1998, Goleman found that there is no difference between men and women in their emotional intelligence competencies (Goleman, 1998). Baron-Cohen, (2002, 2003); Gur et.al: (2002) derived biological explanation that women's biochemistry is better prepared to consider one's own emotions and those of others than men.

Brody & Hall (1993); Hall (1978); Sánchez et.al. (2008) explained social explanations on gender differences on emotional intelligence indicating that women receive an education biased towards the emotional whereas men are taught to minimize certain emotions related to sadness, guilt, vulnerability and fear. Brody & Hall, (2000); Ciarrochi et.al: (2005); Hall, (1978); Hall & Mast, (2008); Hargie, et.al: (1995) concluded that both biological and social explanations from a diverse range of empirical studies of emotion show greater emotional abilities in women and conclude that women have greater emotional knowledge, they express positive and negative emotions more fluently and more frequently, they have more interpersonal competencies, and they are more socially adept

Zomer (2001) Found mixed results regarding gender differences in EI where no gender differences were found with respect to trait EI measures, a gender difference using a new measure of EI with women scoring higher than men on such skills as perceiving/expressing emotion and assimilating emotion in thought was emerged. Slaski and Cartwright (2002) conducted the study and found that gender differences were not found in overall EI, but there were significant differences on some of the subscales. These may be attributed to differences in socialization experiences between the genders. For instance, on the self-regardsubscale, males scored significantly higher than females. Skoe et.al. (2002)found that women and men higher in femininity showed more empathic concern for others. Wong and Law (2002) stated that women are slightly superior to men in perceiving emotions and possess greater abilities in social and emotional intelligence, greater doubt about feelings and decisions, and less emphasis on the intellect. The study is congruent to the previous studies done by Mayer and Geher, (1996) Joseph et. al. (2000)

Brackett and Mayer (2003) found that females scored higher than males on EI but these gender based difference of emotional intelligence were not observed on self-report measures. Perhaps gender differences exist in emotional intelligence only when one defines E.I. in a purely cognitive manner



rather than through a mixed perspective. It could also be the case that gender differences do exist but measurement artifacts such as over-estimation of ability on the part of males are more likely to occur with self-report measures. Kafetsios (2004) observed that females are superior solely on the branch of perception of emotion and experiential.. But found that in overall EQ scores, there is no significant difference between genders. Cumming (2005)studied the relationship among demographic factors, emotional intelligence and workplace performance. The results of her study suggested that no significant relationships were found between gender and emotional intelligence. Katyal and Awasthi, (2005) Studied the correlation between gender and emotional intelligence and stated that females are more sensitive and empathetic compared to males and greater in Emotional quotient (EQ) level.

Arteche, Chamorro- Premuzic, Furnham, and Crump (2008) found no significant associations between overall EQ and genders, but stated that there are significant correlations only when facets of EQ are considered. According to Craig, Tran, Hermans, Williams, Kemp, Morris, and Gordan (2009) Males were found to have lower scores on overall EQ than females with females outscoring higher slightly in one of the facets of EQ (empathy) by accessing them through self-report. Ahmed et.al (2009) found that Gender difference on Emotional Quotient Inventory reveals Males have high emotional intelligence as compare to females.

Rahim, Hussain, Saddam (2010) has investigated the effect of demographic factors like Age, Education, Job tenure, Gender and Marital Status on the level of Emotional Intelligence which leads to organizational performance among male and female employees and found that the female segment is more emotionally intelligent than their male employees in bank sector and there is inverse relationship between the age of the male and female employees and EI. Krishnaveni and Deepa (2011) conducted a study to diagnose the Emotional Intelligence levels of the IT/ITES employees of south India and found that the IT/ITES work force has high emotional intelligence and that gender and age have an impact on Emotional Intelligence. Khalili (2011) examined gender differences in four competencies of emotional intelligence as well as EI as a whole construct on private sector employees and found that males demonstrated higher level of self-awareness, self-management, social awareness and relationship management in comparison to females. On the other hand, females were found to be more emotionally intelligence as whole construct than males.

Rationale of the Study

Previous research studies have shown different outcomes on effect of gender differences on emotional intelligence. Majority of the studies claims females to be more emotionally intelligent than males(Mayer and Geher, (1996); Mayer et al. (1999); Mandell and Pherwani, (2003), Katyal & Awasthi, (2005), Rahim, Hussain, Saddam (2010), on the contrary few empirical studies stated males superior to females in emotional intelligence skills Ahmed et. al, (2009). Some other studies have also found the mixed results on being males superior to females in some dimensions of emotional intelligence and females being high in some of the aspects or measures of emotional intelligence Slaski and Cartwright (2002) where as few studies have also stated no significant differences between

emotional intelligence levels of males and females. Goleman (1995) and Bar-On (1997) claimed that males and females are different in their emotional intelligence profile. Majority of studies found based on gender differences and emotional intelligence of employees in the workplace settings were done on the service sector employees whereas, less research work has been done on manufacturing sector employees for the same. The purpose of this paper is to study the effect of gender differences on emotional intelligence of employees working in manufacturing and service sector organizations and to do the comparative study for the same which has not been done before. Also the interaction effect of gender and nature of organization on emotional intelligence of employees has also been studied.

Objectives of the Study

- To study the effect of genderon emotional intelligence of the employees working in manufacturing and service sector organizations.
- To study the individual effect of gender and nature of organization on emotional intelligence of employees working in manufacturing and service sector organizations.
- To know the interaction effect of gender of employees and nature of organization (Manufacturing and Service) on their Emotional Intelligence level.

Hypotheses

- H₁: Gender of employees has significant effect on employees' emotional intelligence.
- H₂: Nature of organization has significant effect on employees' emotional intelligence.
- H₃: Gender and nature of organization has significant interaction effect on the employees Emotional Intelligence.

Research Method

Sampling Unit:

Employees working on different management positions in the organizations of manufacturing and service sector in Indore and Dewas region.

Sample Size:

Total of 502 respondents working in various manufacturing and service sector from which 250 respondents belonged to manufacturing sector and 252 respondents belonged to service sector.

Area of Sampling : Manufacturing and service sector organizations in Indore and Dewas region.

Sampling Technique

- 1) **Stratified Sampling** technique was done at two levels firstly the total population was divided into two strata. First strata constitute the employees of manufacturing sector and another stratum constitutes the employees of service sector.
- 2) **Purposive Sampling** was further used to select the respondents from the formed strata to constitute the sample for the study.

Tools for Data Collection

Structured questionnaire on emotional intelligence developed on the basis the items adopted from the standard scale developed by Bradberry and Greaves (2003) based on Goleman's Refinement model of Emotional Intelligence (2001), stating four dimensions of Emotional Intelligence namely Self Awareness, self-management termed under the personal competence and, Social Awareness and Relationship Management which were termed under the set of social competence. The questionnaire comprised of 27 items based on the four main dimensions of emotional intelligence according to Goleman's refinement model of emotional intelligence (2001). Item 1 to 6 comprises the statements based on self-awareness dimension of emotional intelligence, item 15 to 19 comprises the statements based on social awareness dimension of emotional intelligence and item 20 to 27 comprises the statements based on the relationship management the last dimension of emotional intelligence model. Item 13 and 14 were reverse scored in the questionnaire. Self-structured questionnaire was used for collecting demographic information of the respondents.

Statistical Tools

Mean, standard deviation and two way ANOVA were used for data analysis.

| Construct measure | Number of items | Cronbach's value |
|--------------------------------|-----------------|------------------|
| Self - awareness | 6 | .752 |
| Self-management | 9 | .777 |
| Social awareness | 5 | .710 |
| Relationship management | 7 | .819 |
| Overall emotional intelligence | 27 | .894 |

 Table 1 : Reliability Statistics for the Scales Adopted for the Study

Table 1 shows the Cronbach Alpha values of all the constructs viz. self-awareness, selfmanagement, social awareness, relationship management, overall emotional intelligence which were found above 0.7. It indicates that the scales used were reliable.

Results

 Table 2 : Organization wise Gender effect on Emotional Intelligence

| Source | Type III Sum of Squares | d.f. | Mean Square | F | Sig. | Partial Eta Squared |
|-----------------|----------------------------|------|----------------|-----------|------|------------------------|
| Corrected Model | 2.871 ^ª | 3 | .957 | 6.162 | .000 | .036 |
| Intercept | 6062.477 | 1 | 6062.477 | 39037.202 | .000 | .987 |

Dependent Variable: Emotional Intelligence

| Organization | .965 | 1 | .965 | 6.211 | .013 | .012 |
|----------------------|----------|-----|------|-------|------|------|
| GENDER | .085 | 1 | .085 | .548 | .459 | .001 |
| Organization* GENDER | .496 | 1 | .496 | 3.196 | .074 | .006 |
| Error | 77.339 | 498 | .155 | | | |
| Total | 8021.505 | 502 | | | | |
| Corrected Total | 80.210 | 501 | | | | |

a. R Squared = .036 (Adjusted R Squared = .030)

Result shows that difference in the effect of nature of organization for emotional intelligence (p = .013) was found to be significant hence hypothesis H_2 was not rejected but no significant difference of gender effect for emotional intelligence (p = .459) was found as well as the interaction effect of organization and gender for emotional intelligence (p = .074) was also not observed to be significant. Hence hypothesis H_1 and H_3 were found to be rejected.

FIG: 1: Estimated marginal means of Emotional Intelligence for Gender of Employees and Organization





| Dependent | Variable | : | Emotional | Intelligence |
|-----------|----------|---|-----------|--------------|
| | | | | |

| Organization | Gender | Mean | Std. Deviation | Ν |
|---------------|--------|--------|----------------|-----|
| Manufacturing | Male | 4.0705 | .37564 | 188 |
| | Female | 3.9689 | .35929 | 62 |
| | Total | 4.0453 | .37354 | 250 |

| Service | Male | 3.8986 | .40583 | 184 |
|---------|---------------|--------|--------|-----|
| | Female 3.9406 | | .43945 | 68 |
| | Total | 3.9099 | .41470 | 252 |
| Total | Male | 3.9855 | .39972 | 372 |
| | Female | 3.9541 | .40192 | 130 |
| | Total | 3.9773 | .40013 | 502 |

Table 3 exhibits that two levels of gender male and female and two levels of organization manufacturing and service sector were taken for the study and in manufacturing sector organizations male employees were observed to be more emotionally intelligent than female employees, however female employees were found to be more consistent in their opinion regarding emotional intelligence than the male employees. Whereas, in service sector female employees were found to have high level of emotional intelligence, but male employees were showing more consistent in their opinion regarding emotional emotional intelligence in the study.

Discussion

The interaction effect of gender and nature of organization for emotional intelligence was not found to be significant. Also the individual difference of gender for emotional intelligence was not found to be significant however individual significant difference of nature of organization for emotional intelligence was observed. It shows that irrespective of the nature of organization weather manufacturing or service male and female employees were found to be equal in emotional intelligence skills. The reason could be that in both the sectors the nature of jobs have different conditions and challenges. In manufacturing sector jobs are production based, mechanical and routine in nature which goes on for 24 hrs around the clock and there might be also the threats of accidents, fire or certain other mishappenings which could take place during the operation of machines for the production process which could be the problem for employees as well as management. Therefore employees and top management might need to be more aware and balanced in their emotions and behavior to work in such kind of environment. Top management should be high in self-management and relationship management also social awareness skills so that they may resolve the workplace issues and problems and can manage employees effectively and legally and employees should also know to regulate their behavior according to the situation and effective communication and relations could be maintained in the organization among superior subordinates, management and co employees and also employees behavior could be effectively regulated for getting the desired results and output from them. In service sector the jobs are target based, transferable, hectic because of fieldwork in case of marketing and sales and also requires enough interaction with different people. The employees need to be high in their emotional skills to provide services to their employers and costumers which might be hectic and challenging hence they may need to emotionally aware, balanced and should not lose their self-control easily. Employees also might need to be highly empathic, socially aware and good in relationship

management as they have to interact with different people who are there costumers for achieving their targets, to effectively perform their assigned jobs also to overcome with the workplace issues and problems by regulating emotions and behavior as well as for effective interpersonal relations in the organization. Therefore for performing the jobs effectively in their respective organizations employees need to be high in their emotional intelligence skills.

References

- Abraham, R. (1999). Emotional intelligence in organizations: A conceptualization. Genetic, Social, and General Psychology Monographs, 125, 209-227.
- Administrators as measured by the multifactor emotional intelligence scale. Dissert. Abst. Int. 60(3), 606.
- Agrawal, K. (2012). Emotional Intelligence Key to Managerial and Organizational effectiveness in Present era of Competition, The International Research Journal of Social Science and Management, 2(3),
- Ahmad, S., H. Bangash and S.A. Khan. (2009). Emotional intelligence and gender differences:, Sarhad J. Agric, 25(1), 127-130.
- Arteche, A., Chamorro-Premuzic, T., Furnham, A., and Crump, J. (2008). The relationship of trait EI with personality, IQ and sex in a UK sample of employees, International Journal of Selection and Assessment, 16(4), 422-426. Retrived from Psyc INFO database.
- Bar-On, R. (1997). Bar-On Emotional Quotient Inventory (EQ-i): Technical manual. Toronto: Multi-Health System.
- Baron-Cohen, S. (2002). The extreme male brain theory of autism. Trends in Cognitive Science, 6, 248-254.
- Baron-Cohen, S. (2003). The essential difference: the truth about the male and female brain. New York: Basic Books.
- Brackett, M. A., and Mayer, J. D. (2003). Convergent, discriminant and incremental validity of competing measures of emotional intelligence, Personality and Social Psychology Bulletin, 29, 1147-1158.
- Bradberry, T.R., and Greaves, J.M. (2003). The Emotional Intelligence Appraisal: Technical Manual, Talent Smart, San Diego Inc.
- Brody, L. R., and Hall, J. A. (1993). Gender and emotion. In M. Lewis, and J. M. Haviland (Eds.), Handbook of Emotions (447-460) New York: Guilford.
- Ciarrochi, J. V., Hynes, K., & Crittenden, N. (2005). Can men do better if they try harder? Sex and motivational effects on emotional awareness.Cognition and Emotion, 19, 133-141.
- Craig, A., Tran, Y., Hermens, G., Williams, L. M., Kemp, A., Morris, C., and Gordon, E. (2009). Psychological and neural correlates of emotional intelligence in a large sample of adult males and females, Personality and Individual Differences, .46, .111–115.Retrieved from Science Direct database.
- Cumming, E. A. (2005). An Investigation into the Relationship between Emotional Intelligence and Workplace Performance: An Exploratory Study, Unpublished Master's Thesis, Lincoln University, Pennsylvania.
- Dunn, S. (2004), The CEO Refresher: Brainfood for Business, Retrieved from EBSCOhost database.
- Goleman, D. (1995). Emotional Intelligence. New York: Bantam What emotional intelligence can do for your organization in 2004Books.
- Goleman, D. (1998). What Makes a Leader? Harvard Business Review, 76(6), 93-102
- Gur, R.C., Gunning-Dixon, F., Bilker, W., &Gur, R.E. (2002).Sex differences in temporo-limbic and frontal brain volumes of healthy adults.Cerebral Cortex, 12, 998-103.

- Hall, J. A. (1978). Gender effects in decoding nonverbal cues. Psychological Bulletin, 85, 845-857.
- Hall, J. A., & Mast, M. S. (2008). Are women always more interpersonally sensitive than men? Impact of goals and content domain. Personality and Social Psychology Bulletin, 34, 144-155.
- Hargie, O., Saunders, C., & Dickson, O. (1995). Social skills in interpersonal communication. London: Routledge.
- Joseph V. Ciarrochi, Amy Y.C. Chan, Peter C., (2000). A Critical Evolution of the Emotional Intelligence Construct, Personality and Individual Difference 28, 539-561.
- Kafetsios, K. (2004). Attachment and emotional intelligence abilities across the life Course, Personality and Individual Differences, 37(2004), 129–145. Retrieved from Science Direct database.
- Katyal, S., and Awasthi, E. (2005). Gender differences in emotional intelligence among adolescents of Chandigarh, 17(2), 153-155. Retrieved from Psyc INFO database.
- Khalili A. (2011). Examining the relevance of emotional intelligence and organizational commitment among Employees of small and medium enterprise in private sector, International Journal of Business and Management, 6(12), 1833-8119.
- King, M. (1999). Measurement of differences in emotional intelligence of preservice educational leadership students and practicing
- Krishnaveni, R., and Deepa, R. (2011) Diagnosing Employees' Emotional Intelligence in the IT Sector of South India, Great Lakes Herald, 5(2).
- Mandell, B. and Pherwani, S. (2003). Relationship between emotional intelligence and TL style: A gender comparison. Journal of Business & Psychology, 17(3), 387-404.
- Mayer, J. D., & Geher, G. (1996).Emotional intelligence and the identification of Emotion. Intelligence, 22, 89–113.
- Mayer, J. D., Caruso, D. R., and Salovey, P. (1999). Emotional intelligence meets standards for traditional intelligence. Intelligence, 27, 267 298.
- Rahim, Hussain, Saddam (2010) Emotional Intelligence & Organizational Performance, International Journal of Business and Management, 5.
- Reiff, H. B., Hatzes, N. M., Bramel, M. H. and Gibbon, T. (2001) The Relation of LD and Gender with Emotional Intelligence in College Students, Journal of Learning Disabilities, Retrieved from http://www.accessmylibrary.com/coms2/browse_JJ_J024.
- Sánchez Núñez, M. T., Fernández-Berrocal, P., Montañés, J., and Latorre, J. M. (2008). Does emotional intelligence depend on gender? The socialization of emotional competencies in men and women and its implications. Electronic Journal of Research in Educational Psychology, 15, 455-474. Disponible en: http://www.investigacion-psicopedagogica.org/revista/articulos/15/english/ Art_15_253.pdf.
- Singh, D. (2002). Emotional Intelligence at Work: A Professional Guide. New Delhi: Sage Publications.
- Skoe, E. E. A., Cumberland, A., Eisenberg, N., Hansen, K. and Peny, J. (2002) "The influences of sex and gender-role identity on moral cognition and prosocial personality traits", Sex Roles, 46, 295-309.
- Slaski, M., Cartwright, S, (2002) Health, performance and EI: An exploratory study of retail managers, Stress and Health, 18 (2), 63-68.
- Sutarso, P. (1999). Gender differences on the emotional intelligence inventory (EQI). Dissert. Abst.Int.
- Wing, E. and G.D. Love. (2001). Elective Affinities and Uninvited Agonies: Mapping Emotions With Significant Others Onto Health. Emotion, Social Relationships and Health Series in Affective Sci. New York: Oxford Univ. Press.
- Wong C.S, Law K.S (2002). The effects of leader and follower emotional intelligence on performance and attitude: an exploratory study, Leadership Quarterly, 13(3), 243-274.
- Zomer, L. (2001) Passion, Reason and Action: Exploring Emotional Intelligence, Personal Projects and Well-Being, Unpublished master's thesis. Carleton University, Ottawa.



Evaluation of the Effects of Globalization on the Taxes for Income from International Financial Investment in Turkey in Terms of the OECD Model (Taxation on Dividends)

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Abstract

Globalization of financial and industrial areas is substantially increasing and is creating new opportunities for both industrialized and developing countries. Most of developing countries are affected from globalization causing the labor, goods and fund movement interstates. There are several countries with authorize taxation in global financial investment. Therefore, one of the important issues is the taxation on the dividend to prevent double taxation. In this study, the affects of globalization on the basis of the taxation for international income, foreign shares were examined taxed dividends acquired from financial investments. Applied methods to the taxation of dividends calculated with examples of the influence of the variables were analyzed in different systems and tax burden. Working prevention of double taxation forming the basis of the subject and scope of the OECD Model is considered as the taxation of dividends in Turkey. The research method in our study based on the comparison and the analysis offindings.

Keywords: Globalization, Taxation on Dividends, International Financial Investment, Income tax.

Introduction

Globalization is a popular concept of recent years, within universities, government and society. Globalization as a concept has entered to the general academic debate in social sciences and is increasingly regarded as a multi-dimensional phenomenon (Bieler 2000). Globalization scholars belong to fields as diverse as cultural studies, sociology, economics, international relations, political theory, art, linguistics (Mooney and Evans 2007) and taxation. This interdisciplinary nature of globalization is perhaps one of its defining features. Concentration of goods, capital and labor movement have increased among countries and has also improved interaction between the economics. Economical globalization can be expected to have far-reaching budgetary implications for countries (Rajan 2003). One should not think that the labor, capital and goods depend on a single state. Capital investment and labor mobility among countries have increased with respect to quantity and quality.In the age of globalization, differences in national tax systems can distort cross-border investment decisions (Mclure 2010). The establishment of foreign-owned companies, investing in various countries of the companies within the holding company, to open branches abroad. Besides, the technology of the part of intellectual property is now changed to a cross-border movement of goods involved in nature. The links of people who get into the labor life have increased with more than one country.

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As a natural consequence of these developments, it has come into the question that natural people and companies obtain income from more than one state. Obtaining income from several states have also brought up the tax cases. The income derived from economic activities among countries emerges as a different problem in which country to be taxed. Each state wants to use taxation authority independently based on the right of sovereignty within their jurisdiction. States can use the taxation authority depending on the place of residence or nationality criteria. Therefore, the same elements of income obtained by the taxpayer may be subject to more than one state taxation authority.

Taxation Authority and Borders

Taxation authority is legal and de facto power of the state has sovereignty over the country about collecting tax that is based on the legal and de facto power. This authorization is a condition of the state's existence (Çağan 1982)However, the proportional importance of the state's taxation authority vary according to the economic and political preference of the states. The importance of the taxation authority in contemporary Western-style democracy is much more than those in the socialist states (Çağan 1982).Taxation authority of the states can be used within the fiscal sovereignty area freely. Outside of the financial sovereignty area, the use of taxation authority is only limited with their own citizens.Therefore, the principles of territoriality and privity have emerged in the use of the taxation authority(Akdoğan, 2009).

Double Taxation

Double taxation can be both national and international term. On the other hand, double taxation occurs economic double taxation and legal double taxation. Distinguishing characteristic of international double taxation is the use of several states' taxation authority. At the national double taxation, the taxation authority is used and distributed to various political subdivisions in the same state. In this case, double taxation, or the overlap of several state-owned powers of taxation for the same authorization of multiple use of the same tax payer and/or the same taxation period within and multiple taxation due to more than one state of the taxation authority of the conflict or the same authority of more than one use of the same taxpayer and/or collecting more than one tax of the same quality in the same period(Soydan,1995).

Taxation on Dividend

There are some debates as to whether separate taxation of corporations, as distinct from their shareholders, is a necessary part of an income tax system. Proponents of individual income tax are of the view that there is no need for a separate tax on companies. However, most countries adopt income tax system that provide for a tax on both companies and their shareholders. This appears to be largely in recognition of the nature of companies as separate legal entities (Oatss 2002). To overcome taxation obstacles, the European Commission has suggested that EU Member States consider adopting a Common Consolidated Corporate Tax Base (Mclure, 2010).

Classical System

The corporation is a completely legal entity separate from its shareholders. As a result of this situation, corporate income and dividend of the partners are taxed separately. Corporate's profit is subject to corporate tax at the company level and the distributed dividend, is taxed at the shareholder level as part of his overall income at the applicable marginal income tax rate. Thus the classical system arises in full economic double taxation (EU 2003). Double taxation gives financial troubles to the companies (Noord &Heady 2001).

Schedular Systems

Under schedular systems, profits of a company are equally subjected to corporate tax, but dividends obtained by individual shareholders are taxed as a separate category of income (Noord and Heady 2001). There are three subtypes of schedular systems. These Ones; (a) applying a single tax rate on dividends, (b) the implementation of a separate tax rates, and (c) be subject to tax half of the resulting dividend(Noord and Heady 2001).

Half Income Tax or Half Exemption Method

Under the half income tax or half exemption method, only the half of acquired by a shareholder is subject to the applicable marginal individual income tax rate. With the half income tax method, combined under the pressure of corporation tax with personal income tax on the dividend could also be comformed to the top marginal income tax rate, as in this method could achieve the same result as the imputation system for the taxpayers in the higher income tax segment. It would surely be possible to exempt more than half of the dividend for the taxpayers in the lower income tax bracket.

Imputation System

The imputation system based on corporation tax on the company's profit serves as a prepayment for the income tax on the dividend of the shareholders. Under the imputation system, both company and shareholder are taxed separately. But at the shareholder level, the dividend is the first grossed up by the corporation tax paid by the company on that income and then a credit is granted for some or all of that amount against the income tax on the dividend. Accordingly, the credit may be 100% or lower (Öz,2005).If the credit is equal to the corporation tax paid by the company on the dividend. Level, the dividend, this system guarantees full relief of the economic double taxation¹ for shareholders of all income levels (EU 2003).

Exemption Method

The income from financial investment that means dividends may be exempt from income taxation in the exemption method (EU 2003).

¹Economic double taxation appears when the same income is taxed twice in the handsof two different taxpayers. In the case of dividends, economic double taxation may appear when first the company is subject to corporation tax and then the shareholder issubject to income tax on the distributed profits as in dividends.

The Effects of the Different Methods and Systems

The following examples shows the effects of the different systems and methods in domestic situations. Suppose that the profit is 100 units, the corporate tax rate is 20%, the marginal income tax rate is 35% and the half of dividend exempt from income tax, in the imputation system 100% corporate tax deduction is made, the calculations made with the assumption that tax rate is 25% in the schedular system were included in the following table.

| | | Classical | Schedular | HalfIncome | Imputation | Exemption |
|----|--|-----------|-----------|------------|------------|-----------|
| | | System | System | Method | System | Method |
| 1 | Profit | 100 | 100 | 100 | 100 | 100 |
| 2 | Corporation tax 20% | 20 | 20 | 20 | 20 | 20 |
| 3 | Dividend (1-2) | 80 | 80 | 80 | 80 | 80 |
| 4 | Income tax base | 80 | 80 | 40(80/2) | 100(3+2) | 0 |
| 5 | Income tax(35% of 4) | 28 | | 14 | 35 | 0 |
| 6 | Full credit (2) | | | | 20 | |
| 7 | Remaining income tax (5-6) | | | | 15 | |
| 8 | Schedular tax(25% of 4) | | 20 | | | |
| 9 | Net dividend (3-(5, 7, or 8)) | 52 | 60 | 66 | 65 | 80 |
| 10 | Effective tax rate on 1 is combined tax burden | %48 | %40 | %34 | %35 | %20 |

Table 1 : The effects of the various dividend taxation systems

 Table 2 : The effects of the various tax rate and dividend taxation systems

 UT-%35:

 CT-%30: UT-%35:

 CT-%20: UT-%20: UT-%2

| CT-%20;IIT-%35; | CT-%30;11T-%35; | CT-%20;IIT-50; | CT-%20;11T-%35; |
|------------------------|------------------------|------------------------|------------------------|
| Sch.T-%25 | Sch.T-%25 | Sch.T-%25 | Sch.T-%30 |
| The tax burden ranking |
| Classical System48% | ClassicalSystem54,5% | ClassicalSystem60% | ClassicalSystem48% |
| SchedularSystem40% | SchedularSystem40% | Imputation System50% | SchedularSystem44% |
| ImputationSystem35% | ImputationSystem35% | Schedular System40% | ImputationSystem35% |
| HalfIncomeMethod34% | HalfIncomeMethod34% | HalfIncomeMethod40% | HalfIncomeMethod34% |
| ExemptionMethod20% | ExemptionMethod30% | ExemptionMethod20% | ExemptionMethod20% |

The Table of changes in the applied methods according to variables of corporation tax, income tax and Schedular income tax.

When the effect of different methods in terms of tax burden, classical system has a maximum tax burden, on the other hand exception method has a minimum tax burden.Imputation System and exception method are eliminated to economic double taxation.The dual system also eliminated the effects of economic double taxation in proportion to be determined.

Table 3 Domestic dividends: Overview Member States of OECD and acceding States dividend taxation systems for individual shareholders receiving domestic dividends. Amajority of all Member States apply some form of schedular system to domestic dividend, including Italy, Finland and UK. (Jobs and Growth 2003)²

| | Classical | Imputation | Schedular System | Exemption Method |
|-----------------|-----------|---------------|---|-------------------------------|
| | System | System | | |
| Member States | Ireland | Spain, France | Belgium, Denmark, Germany, Luxembourg, Netherlands, Austria, Portugal, Sweden | Greece |
| Acceding States | | Malta | Cyprus, Czech Rep., Hungary, Lithuania, Poland, Slovak Rep., Slovenia | Estonia ³ , Latvia |

| Table 3 | : | Domestic | Dividends |
|---------|---|----------|-----------|
|---------|---|----------|-----------|

Dividends Taxation in OECD Model

According to the OECD Model Convention, with respect to Taxes on Income and Capital of double taxation avoidance agreement to be considered in the taxation of dividends is one of the most important issues. Double taxation of dividends according to the principles of taxation avoidance agreement (article number:10) will be as follows.

"Dividends paid by a company which is a resident of a Contracting State to a resident of the other Contracting State may be taxed in that other State. However, dividends paid by a company which is a resident of a Contracting State may also be taxed in that State according to the laws of that State, but if the beneficial owner of the dividends is a resident of the other Contracting State, the tax so charged shall not exceed 5 per cent of the gross amount of the dividends if the beneficial owner is acompany (other than a partnership) which holds directly at least 25 per cent of the capital of the company paying the dividends 15 per cent of the gross amount of the dividends in all other cases. The competent authorities of the Contracting States shall by mutual agreement settle the mode of application of these limitations. This paragraph shall not affect the taxation of the company in respect of the profits out of which the dividends are paid."⁴

To prevent Double Taxation Treaties about Income Tax on dividends obtained from abroad the agreement with Austria, which were signed at November/3/1970, became the first Double Taxation Treaty for Turkey. The Turkish prevention of double taxation agreement recently numbers 80. Turkey has comprehensive double taxation agreements come into force with 80 countries. The list of agreements come into force on January/1/2014

² With a rate of 15% (5% for taxpayers in the low income tax bracket)

³ The Estonian system is noted as an exemption system although it has a unique feature: corporation tax is not levied until dividends are paid out. No income tax is levied on domestic dividends. It could also be seen as a system in which profits are exempt in the hands of the company, and in which the tax paid by the company at the same rate as that imposed on personal income is a withholding tax, a pre-payment of the shareholder's tax liability on the dividends.
Taxation of Dividends in Turkey

In Turkey, the taxation of dividends obtained from full liability what might be called as semiincome or semi-exception, schedular system is implemented. Accordingly, obtained from resident corporations, half of the dividend is exempt from income tax. Witholding is made on the amount of exceptions in accordance with IITL Article number 94. The sum of dividends subjects to tax when it exceeds the amount of specified in the second segment of the income tax tariff are declared half of the dividends obtained from resident company. All of the tax witheld, including the corresponding portion of tax exemptions amount, shall be deducted from the tax calculated on the annual return. If the part can not be deducted, parts are returned. In case the declaration is not given, to do offset (enter in an account) and refund is not the case. Applied methods largely eliminate the economic double taxation problems caused by the corporation tax.

| 1 | Corporate income | 100 |
|----|--|-----|
| 2 | Corporate tax (1 * 20%) | 20 |
| 3 | Dividend (1 - 2) | 80 |
| 4 | Income tax deductions (3 * 15%) | 12 |
| 5 | Income tax base (4 * 50%) | 40 |
| 6 | Income tax (6 * 35%) | 14 |
| 7 | Offset (4) | 12 |
| 8 | Income tax payable (5-6) | 2 |
| 9 | Net Dividend (80-4-8) | 66 |
| 10 | The total tax burden $(2+4+8)/1$ | 34 |
| 11 | The effective tax burden on corporate income 34% | 34% |
| | | |

| Table 4: The tax burden on dividends | Table 4 : | The tax | burden | on | dividends |
|--------------------------------------|-----------|---------|--------|----|-----------|
|--------------------------------------|-----------|---------|--------|----|-----------|

As indicated above, obtained by natural person dividends even when subjected to the highest income tax on the dividend obtained, the total tax burden including corporate tax is at 34%. This rate is lower than the highest marginal income tax rate by 1%, it is not economic double taxation on dividends. However, we consider the overall tax burden on distributed dividends, the tax burden of both of high and low dividend who is getting too close together, (The total tax burden varies between approximately 30-34%) increasing the income tax rate structure is largely eliminated. This situation

⁴ Limits of dividend concept is also explain in the OECD Model Tax Convention. According to the OECD model, the following incomes are counted in the "dividends" concept.3. The term "dividends" as used in this Article means; - Income from shares, "jouissance" shares or "jouissance" rights, mining shares, founders' shares or-The other rights, not being, participating in profits, as well as income from other corporate rights which is debt-claims subjected to the same taxation treatment as income from shares by the laws of the State of which the company making the distribution is a resident. (...)

cause a result has been achieved at the expense of lower dividend obtainer. Besides, are not applied any exception to the dividends obtained for the limited taxpayer and all obtained dividends is declared. Thus, obtained in this way dividends are taxed abroad that would be the highest form of economic double taxation with classical systems.

Conclusion

Globalization is an important concept of recent years. In the age of globalization, differences in national tax systems can distort cross-border investment decisions. The income derived from economic activities among countries emerges as a different problem in which country to be taxed. Corperate income and dividend of the partners are taxed separately.

Countries apply different methods to avoid double taxation like classical system, imputation system, schedular system or exemption method. OECD model that Turkey has also agreed to suggest solution for the prevention of double taxation. However, it has been found that a number of agreements signed by Turkey is not complying with OECD Model. Common method to determine the taxation of dividends with the participation of the countries will be more useful.

References

- Akdoğan, A,(2009) Vergi Hukuku ve Türk Vergi Sistemi, 9. Baskı, Gazi Kitabevi, Ankara, 30-31.
- Bieler, A, (2000), Globalisation and Enlargement of the European Union, Austrian and Swedish Social Forces in the Struggle over Membership, Routledge, Taylor&Francis Group, London and New York. ix.
- Çağan, N., (1982), Vergilendirme Yetkisi, Kazancı Hukuk Yayınları, İstanbul.3,4,5.
- EU, (2003),Dividend taxation of individuals in the Internal Market, Communication From The Commission To The Council,The European Parliament And The European Economic And Social Committee, Brussels, 19.12.2003 Com,810 Final.4,5,6,7.
- Jobs & Growth (2003), Tax Relief Reconciliation Act of 2003.
- Mclure, C.E., (2010). Globalization and Tax Discontents, Tax Policy and International Investments, (Ed: Arthur J. Cockfield), University of Toronto Press, London.138.
- Mooney, A. & Evans, B.(Ed.), (2007), Globalization, The Key Concepts, Routledge, Taylor&Francis Group, London and New York. ix.
- Noord, P. & Heady, C., (2001) ,Surveillance Of Tax Policies: A Synthesis Of Findings In Economic Surveys, Economics Department Working Papers, No. 303.4.
- Oatss, L., (2002), Companies and Their Shareholders: Design Issues, The International Taxation System, (Ed: Andrew Lymer, John Hasseldine, Springer Science+Business Media New York.249-250.
- ÖZ, N.S., (2005), Vergi Cennetleriyle Mücadele Aracı Olarak Yurt Dışı Kontrollü İşletme Düzenlemeleri, Mali Pusula, Aylık Mali Mevzuat Dergisi, Maliye ve Hukuk Yayınları, Yıl 1, Sayı 2, Ankara. 219-220.
- Rajan,R.S.,(2003) ,Economic Globalization and Asia, Essays on Finance, Trade and Taxation, World Scientific Publishing.12.
- Soydan, B.Y.,(1995), Uluslar arası Vergi Anlaşmaları, Beta Basım Yayım Dağıtım, Yayın No: 581-55, İstanbul.3.





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Abstract

Financial inclusion is a systematic effort to provide essential financial services to all and especially to poor people. This research paper discusses concept of financial inclusion in India and the efforts being made to identify its need in households and growth of economy. The objective of this study is to study financial inclusion in Indian context, discussed by different researchers all over the world and also to highlight the awareness level of financial inclusion and barriers confronted to financial access. An attempt is made to understand financial inclusion and its importance for overall development of society and Nation's economy. A model has been designed in this paper to explore various dimensions of financial inclusion. Financial inclusion has increased shown an overall growth in India but its effectiveness is still doubted.

Keywords: Financial Inclusion, Systematic, Awareness, Barriers, Technology Issues.

Introduction

Though India had achieved 7-8 % of GDP growth yet half of the population lives below poverty line. Financial Inclusion is a key enabler to economic, social and transaction security of a country, thereby driving inclusive growth. Financial Inclusion (FI) is a formulated process of providing financial products to every constituents of the society especially the poor or you can say economically backward. RBI have developed the panel for this and implementing it by keeping in mind the main banks.

As India is the land of rural supremacy, it is imperative to provide suitable financial services for economic growth which will increase the income and living standards of the households, resulting in greater financial inclusion in rural segments is crucial meanwhile the focus on urban region is also required. Emerging financial inclusion as a commercial profitable business exists in the hands of the banks, possible through viable customised plan.

Financial Inclusion program has been established by Reserve Bank of India so that people from all income groups of India can avail the financial services at affordable rates. In many developing countries there are many microfinance institutes whose main focus is on lower income group so that they can work on the financial inclusion for developing countries and they can move to their betterment, and become developed countries. The consensus is that finance promotes economic growth but the magnitude of impact differs.

Financial inclusion is intended to connect people to banks with consequential benefits. Ensuring that the financial system plays its due role in promoting inclusive growth is one of the biggest

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challenges facing the emerging economies. We therefore advocate that financial development creates enabling conditions for growth when access to safe, easy and affordable credit and other financial services by the poor and vulnerable groups, disadvantaged areas and lagging sectors is recognised as a pre-condition for accelerating growth and reducing income disparities and poverty.

Access to a well-functioning financial system, by creating equal opportunities, enables economically and socially excluded people to integrate better into the economy and actively contribute to development and protects themselves against economic shocks. This paper focus on the significance of Financial Inclusion in the context of a developing country like India wherein a large population is deprived of the financial services which are very much essential for overall economic growth of a country.

Rationale of the Study

The new avenue for research in finance is making financial inclusion workable .It is not implied that financial inclusion alone has led to the development but is an important factor. To achieve greater financial inclusion, financial services should reach the poor, down trodden groups' .Mostly the banks and other financial institutions have played a vital role in filling up this gap. This study discusses the financial inclusion position, awareness level, various technology issues and barriers to financial inclusion.

Review of Literature

The new architecture of financial inclusion reflects the failure of the traditional formal sector and the need to adopt modern methods to serve the poor. Regulation has a fundamental role to play in ensuring that market-oriented solutions to poverty alleviation coexist with other social initiatives. India's financial inclusion agenda has seen an innovative shift away from an emphasis on credit to a more comprehensive approach. (Barua et al., 2016).

The banking and other formal financial institutions such as post offices and insurance companies has become essential for an individual to deposit, save, invest and avail financial services .The banking sector and other financial sectors were providing lots of financial services for decades (Choudhury, 2015)

Addressing financial exclusion needs holistic approach on the part of the banks to create awareness on financial products and education, advice on money management, debt counselling, saving and affordable credit (Shah et. al., 2015).

Shaik (2015) observed that the support of financial inclusion can be achieved only through linkages between micro finance institutions and local communities. Banks should give mass publicity about zero balance account, accessing banking products by using more technology in the rural areas and modify ATMs as user friendly for those who are illiterate and less educated. Banks needs to redesign their service approach to promote financial inclusion to low income group and consider the policy as business opportunity and corporate social responsibility. The existing financial inclusion literature was

analyzed in two ways like challenging the simplistic bank or unbanked distinction and underutilizing their bank accounts. This paper argued that this segment must be given an ample attention, if financial inclusion drive is to be successful. It also challenged the current measures of success for financial inclusion. Balakrishnan, M. (2015) revealed that benefits can only be derived from active commitment with financial product and services and not just by access. Here the active commitment is about usage of financial products and services.

The major constraints found are less education, illiteracy, high proximity from their living area to service institutions, low density of population, poor channel design and low product quality (Cressy, 2002). The above constraints represent all the major constraints on accessing financial services by the weaker individuals as well as rendering of services by financial institutions. In case of firms, especially Small and Medium Enterprises (SMEs), access to finance is not very easy which creates barrier for their growth (Koku, 2015).

The necessity for financial inclusion in India was to include the financially excluded people, who were unable to access the financial services provided by banking and financial institutions (Gupta, 2015). Banks provide their products and services to poor people but they were not found aware of availing products and services from them. (Joseph et al.,2014), The technological reforms pertained to banking sector such as mobile phones, e-commerce, email, atms and plastic money were available only in towns and cities, which leads to limited access to financial products and services in rural regions . Digital financial inclusion highly insists on poor people because it directly reaches for the welfare of needy through appropriate channels and provides access to basic account, payment connections to peers, institutions, governments and enhanced financial services. (Mamatha, 2015).

Chauhan (2014) describes that due to illiteracy and poverty, the people were unable to access the financial services provided by the banking and financial services and banks were not able to provide the products and services required as well. Various steps were taken by the Government of India (GOI) and the Reserve Bank of India (RBI) to include the financially excluded regions, so that the people, especially low income groups and disadvantaged regions can able to access the products and services rendered by financial institutions.

Financial inclusion is seen to be something more than opening bank branches in unbanked areas to take formal financial services across the length and breadth of the country. The fundamental objective of all these initiatives is to reach the large sections of the financially excluded Indian population to increase the growth and development; the access to safe, easy and affordable credit and other financial services to the poor and vulnerable groups are recognized as a pre-condition (Kaur, 2014). The Nachiket Mor Committee on Financial Inclusion has focused its attention on framing a clear vision and design principles with comprehensive monitoring framework to track the progress of Financial Inclusion and Financial deepening in India. (Nachiket et.al. 2014).

Banking and financial institutions are providing services to low income groups in many ways. But, there are some factors which create barriers for vulnerable groups to access the financial products and services provided. The constraints were segmented based on demand, supply and institutional constraints. Financial Inclusion can be substantially enhanced by improving the supply side or the delivery systems, it is also important to note that many regions, segments of the population and subsectors of the economy have a limited or weak demand for financial services. In order to improve their level of inclusion, demand side efforts need to be undertaken including improving human and physical resource endowments, enhancing productivity, mitigating risk and strengthening market linkages (Rangarajan C, 2008). The financially excluded region were considered as the reason for economic imbalance; found that it can be rectified by building proper financial systems. The reviews represented the problems faced by the weaker group by means of financial access (Barr et al., 2007).

Objectives of the Study

- To understand the financial inclusion and its importance in Indian Context.
- To study the steps taken by the regulatory bodies and various initiatives by the Government to achieve objectives of financial inclusion.

Research Methodology

This study is descriptive in nature. It focuses on Inclusive approach to financial inclusion initiatives in attaining Inclusive Growth and is based on secondary data compiled from Reserve Bank of India Publications, various journals, reports, magazines, newspapers etc. The Study is based on secondary data compiled from Reserve Bank of India Publications, Nabard, and Economic survey of India.

Findings and Discussion

While studies on financial inclusion have tackled the issue from variety of viewpoints, with the exception of conceptual studies, the focus is seemingly on finding out the dimensions of financial inclusions with awareness, technology and barriers to access Financial Inclusion is one of the top most priorities of the government.

The Government of India and the Reserve Bank of India have been making continuous efforts like the recent "Jan Dhan Yojana" announced in August, 2014 to promote financial inclusion as one of the important national objectives of the country. The government's objective of achieving 100 per cent financial inclusions got a shot in the arm with the India Post getting the nod for starting payments bank.

The move can further aid the financial inclusion objective of the government and the RBI as more people can now potentially have access to a bank. With more people getting access to a bank, it could improve the efficiency of passing on the government-sponsored benefits to the beneficiary directly through their bank accounts. It can potentially improve financial literacy levels and also the country's financial savings. It is not possible for banks and concerned authorities to bring changes in existing financial system overnight but optimum plan and speedy action will take bank to the bottom of the pyramid sections which may not be a profitable plan for banks but the number of beneficiaries will increase and possibility of profitable proportion will be in higher volumes. Emerging financial inclusion as a commercial profitable business exists in the hands of the banks, possible through viable tailored plan. To bring a large segment of the society under the umbrella of financial inclusion, banks have set up their branches in remote corners of the country. The rules and regulations have been simplified. It goes without saying that the banking industry has shown tremendous growth in volume during the last few decades. India's fastest growing economies have become possible through financial inclusion. In spite of that, still there are large segments of the society outside the financial system. "An inclusive growth is not possible without financial inclusion. Financial inclusion has become a major policy plank.

But in addition to the financial architecture, the Government must also begin creating the physical architecture to deliver nutrition, education and health. The efficiency, speed, commitment and confidence with which the Government has moved towards creating the structure of financial inclusion gives hope that soon equally effective steps would be taken to create the physical structures necessary for delivering nutrition, education, health and old-age care for all. Ultimately, that is what makes a society inclusive and empowered. Thus, financial inclusion is a big road which India has to travel to make it completely successful. Miles to go before we reach the set goals but the ball is set in motion!

The new architecture of inclusion reflects the failure of the traditional formal sector and the need to adopt modern methods to serve the poor. In this context, regulation has a fundamental role to play in ensuring that market-oriented solutions to poverty alleviation coexist with other social initiatives. India's financial inclusion agenda has seen a welcome shift away from an emphasis on credit to a more comprehensive approach.

To address the market failure to provide financial services to low-income clients, India has a huge opportunity. For the first time in the last decade, financial inclusion is at the heart of the policy agenda, and it has been widened to include savings, credit, insurance, and pensions. Technology increasingly affords the opportunity to improve delivery; in particular, there are technologies that enable better targeting and transfer of financial resources to households.

Suggestions and Recommendations

Innovative products, out of the box service models, effective regulatory norms and leveraging technology together could change the landscape of the current progress of the much needed and wanted Financial Inclusion Program.

The financial literacy of rural and semi urban population of India should be increased by teaching them new avenues of banking. Technological innovations like integrated machine that has functionality of cash withdrawal and deposit and biometric identification of users, voice commands and narration for all facilities in multi-language format could help increase banking literacy.



Suggested Model for Financial Inclusion

- Awareness of mobile banking is significantly low and there is reluctance, especially amongst rural people, probably because of low technological and financial literacy.
- There is need to seek help from local governments, both in villages and cities. The panchayati raj institutions, municipalities and city councils can help not only in identifying but encourage the unbanked to start operating in formal banking channels.
- The banking sectors have to liberalize the security level of the borrower to borrow money from the bank in an easiest way, they banking sectors have to announce the new schemes offered by them to all the citizen of India for the proper utilization of the fund.

Conclusion

Although efforts are being put in y all the concerned stakeholders ie. Government, Reserve Bank Of India, Commercial Banks And Other Financial Institutions yet much more is required. Response is visible towards promotion of Financial Inclusion. However, it is difficult for Banks and concerned authorities to bring rapid changes in existing Financial System overnight . Optimum plan suitable to the system and speedy action will help the Banks to approach the bottom of the pyramid i.e sections which may not be profitable or Banks still put on the efforts for so that the number of beneficiaries will increase and possibility and opportunities for will be increase. Emerging Financial Inclusion as a commercial profitable business exists in the hands of the Banks. This all may be possible through viable tailored plan.

The Banks as largest network of financial services must be most trustworthy for the rural people . The Banks have to work more towards creating the awareness among the customers and people at large about the services and facilities provided by them. During recent years an increasing trend towards financial inclusion in India.

References

- Barr M. A. Kumar. & R. E. Litan, (2007), "Building Inclusive Financial Systems: A Framework for Financial Access." Washington, DC: Brookings Institution Press
- Barua Abheek, Kathuria Rajat, and Malik Neha (2016), "The Status of Financial Inclusion, Regulation, and Education in India." ADBI Working Paper series.
- Chakravarty, S. R., & Pal, R. (2013), "Financial inclusion in India: An axiomatic approach." Journal of Policy Modelling, 35(5), 813-837.
- Chauhan Rajni (2014), "Financial Inclusion Present Scenario in India with Nachiket Mor Committee Vision." International Journal of Commerce, Business and Management (IJCBM), Vol3
- Choudhury M. S. (2015), "Financial Inclusion in Bangladesh: Evidence from Two Villages". Journal of Exclusion Studies, 5(2), 113-128.
- Demantas, I. (2014), Book review: Kavita Datta, "Migrants and Their Money: Surviving Financial Exclusion. Work, Employment & Society", 28(3), 501-502.
- Economic and Political Weekly, Reports of NABARD.
- Gupta, V. (2015), "Pradhan Mantri Jan-Dhan Yojana: An Effort towards Financial Inclusion." IUP Journal of Bank Management, 14(2), 49-56.
- Joseph, J., & Varghese, T. (2014), "Role of Financial Inclusion in the Development of Indian" Economy Journal of Economics and Sustainable Development, 5(11), 6-15.
- Koku, P. S. (2015), "Financial exclusion of the poor: a literature review". International Journal of Bank Marketing, 654-668.
- Mamatha M (2015) "Financial Inclusion Initiative by RBI", International Journal of Research and Computational Technology, Vol7
- Nachiket Mor Committee Report (2014), "Committee on Comprehensive Financial services for small Scale Bussiness and low income household."
- Paramjeet Kaur (2014), "A study on financial inclusion role of Indian banks in implementing a scalable and Sustainable financial inclusion strategy"International Journal Of Management Vol5 pg103-110.
- Satish K Mittal and Shuchi Shukla (2014), "Review of Financial Inclusion Practice and its Success in India" IOSR Journal of Business and Management (IOSR-JBM) pg106-111.

- Shah, P., & Dubhashi, M. (2015), "Review Paper on Financial Inclusion-The Means of Inclusive Growth." International Journal of Business Research, 1(1), 37-48.
- Shaik, H. (2015), "A Study on Recent Measures of RBI on Financial Inclusion plan of Banks." International Journal, 3(10), 82-88.
- Sundaram N, Sriram M (2016), "Financial Inclusion in India: A Review" International Journal of Applied Engineering Research Vol 11, pg 1575-1578
- The Economic Survey, New Delhi, GOI
- Weekly, 48(21), 55-60. Rangarajan, C (2008), "Report of the Committee on Financial Inclusion", Ministry of Finance, Government of India."

Webliography

- www.rbi.org.in
- www.nabard.org
- www.finmin.nic.in
- www.ijrct.org
- www.iosrjournals.org/iosr-jbm/papers/Vol16-issue8

Cat Bonds: Deconstructing the Real Meaning

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Abstract

India is geographically very diverse country. There are plains, mountains, plateaus, forests, woods, deserts, diversified climatic zones in its natural geography. Disasters can be man-made and natural also. Natural catastrophes events are uncertain and so are the losses from it. These natural hazards and calamities sometimes create such huge losses that they generate a lack of financial capacity in the catastrophe line. Hurricane Andrew and the Northridge earthquake in United States bought a new innovative financial product 'Cat Bonds' in the market in the year 1990's to spread the excess risk more widely among the international investors. The paper explored the origin and conceptualization of Catastrophe Bonds (Cat Bonds) and also revealed the contemporary position of Cat Bonds in the financial market of India.

Keywords: Natural Catastrophes, Innovative Financial Products, Cat Bonds, Financial Markets

Introduction

Natural catastrophes such as hurricanes, floods, earthquakes and tsunamis adversely affect the human beings and their belongings. Some of them lead to huge human losses, without much impact in terms of economic losses; others lead to huge economic and insurance losses, without many victims. During the last decade, catastrophe-linked securities were very often presented as an appropriate tool to deal with the financial consequences of natural catastrophes, even in the case of poor developing countries (Barrieu and Louberge, 2007). Insurance is a financial product, one of the oldest known to man, and has always been at the forefront of risk management.

There has been much said about the convergence of the insurance industry with the capital markets. Insurance linked securities have proven to be one of the most successful manifestations of this convergence and how insurance related risk can be transferred to capital market investors. The concept of securitizing insurance risks became established in the mid-1990s in the wake of significant pressure on capacity in the non-life insurance market and an increased focus on capital management across both the life and non-life insurance sectors. The most prominent form of Insurance Linked Securities (ILS) is the Catastrophe Bond (Cat Bond), a structure that was borne out of a desire to broaden reinsurance capacity in the aftermath of Hurricane Andrew in 1992 and the impact this loss had on the availability and price of property reinsurance (Tellis and Joseph, 2012).

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The Evolution

Reinsurance is insurance purchased by insurance companies to cover risks that the insurance companies themselves would not have enough reserves to cover them. To illustrate, an insurance company that has sufficient reserves to pay claims of up to \$1 Billion but no more, in the event of a catastrophe such as a hurricane or an earthquake, may purchase reinsurance from a reinsurance company to cover claims in excess of \$1 Billion. In turn, a reinsurance company may purchase reinsurance of its own tail risks from yet another or several other reinsurance companies. The purchase of reinsurance by reinsurers is called retrocession. Each reinsurer must have sufficient reserves to cover the claims that it may be called upon to cover with a high level of probability. Catastrophe Bonds, or Cat Bonds, were created in the mid-1990s after Hurricane Andrew, the most costly hurricane in U.S. history, caused sufficient damage to bankrupt some insurance companies. This led insurers and reinsurers to seek new ways to ensure that they had adequate capital to cover claims in the event of future disasters (Edesess, 2014).

Indian Scenario

In the Economic Survey 2010, there was a special reference made to introduce Cat Bonds in India. Even in the phase of good economic growth, India faced several challenges in the form of widespread floods and storms all over the country. So in this context, it became important for India to introduce Cat Bonds to strengthen the insurance sector and transfer the peak catastrophe risk to capital markets (Tellis and Joseph, 2012).

Rationale

The growing gap between insurance coverage and overall economic losses from natural disasters in high risk high density areas puts a large strain on the sovereigns which struggle to balance economic growth and financial stability of the country. The gap that exists between the level of economic losses generated by catastrophes and the level of insured losses can be addressed using the right financial tool and data analytic platform to measure the associated risk. Catastrophe Bonds, an asset class of the Insurance Linked Securitization Instruments, which are not linked to the activity of the financial markets but rather to the activity of the natural world, are the ideal solution for sovereigns and companies who have invested in property situated in the high risk areas.

The introduction of an emerging economy into the Catastrophe Bond market may readily benefit the insurance industry that is well positioned to turn a profit off of climate change by taking a more proactive approach in exploring the untapped section of the market. The outstanding growth of the Catastrophe Bond market since its inception makes the opportunity for property owners, sovereigns, and insurers to transfer the risk of economic loss from natural disasters to investors greater than ever before. By providing insurance coverage and a mechanism to transfer the financial risk of doing so, sovereigns in the emerging economies could potentially depend less on foreign aid from developed economies to finance post-disaster recovery which would free up funds for infrastructure, education, and economic development (Mattucci, 2016). Hence, it is the need of the hour to conceptualize what are Cat Bonds in the markets bought for and current and potential future use of Cat Bonds for being the proactive tool in the insurance industry for a post disaster recovery in the world.

Review of Literature

What are Cat Bonds?

Catastrophe Bonds are a high-yield debt instrument that is usually insurance linked and meant to raise money to fund claims resulting from a defined catastrophe such as a hurricane or an earthquake. Cat Bonds carry a peculiar covenant that if the issuer i.e., insurance or reinsurance Company, suffers a loss from a particular pre-defined catastrophe, then the issuer's obligation to pay interest and/or repay the principal is either deferred or completely waived. The sponsor and the investment banks who structure the Cat Bonds define how the principal impairment is triggered (Shadra and Challapalli, 2014). The purpose of Cat Bond is to crowd-source reinsurance coverage, in order to reduce reinsurers', insurers', and self-insurers' reserve requirements and reduce their cost of coverage. At the same time they are attractive to investors, because the risks they cover are virtually uncorrelated with other risks such as equity market risk, interest rate risk, and credit risk (Edesess, 2014). Catastrophe Bonds are one of a number of innovative risk transfer products that have emerged as an alternative to traditional insurance and reinsurance products. Insurers and reinsurers typically issue Cat Bonds through a special purpose vehicle, a company set up specifically for this purpose. Cat Bonds pay high interest rates and diversify an investor's portfolio because natural disasters occur randomly and are not associated with economic factors. Depending on how the Cat Bond is structured, if losses reach the threshold specified in the bond offering, the investor may lose all or part of the principal or interest (Insurance Information Institute, 2017).

Catastrophe Bonds are an example of insurance securitization to create risk linked securities which transfer a specific set of risks generally catastrophe and natural disaster risks from an issuer or sponsor to investors. Investors take on the risks of a specified catastrophe or event occurring in return for attractive rates of investment. A qualifying catastrophe or event occurs the investors will lose the principal they invested and the issuer, often insurance or reinsurance companies will receive that money to cover their losses (www.artemis.com). The success of this type of Insurance Linked Security (ILS) is based on its popularity as an alternative risk transfer technique for reinsurance companies and on its reputation for exhibiting an appealing risk-return profile as well as low correlations with traditional asset classes. Particularly institutional fixed-income investors are increasingly attracted by the instrument, since it is fully collateralized and offers an almost pure exposure to natural disaster risk in a familiar bond format (Braun, 2014).

The Origin of Cat Bonds

Cat Bonds were developed during the 1990s. The reason behind their development was the huge losses to the insurance industry caused by hurricane Andrew in 1992. Due to this, insurance companies

covering catastrophe risks had to leave the reinsurance market unwillingly. Eleven American insurance companies fell into bankruptcy. A need for new forms of capital to cover catastrophe insurance was felt. The solution was to turn on the financial markets that were much larger than the insurance markets (www.entropics.com).

The History

Catastrophe Bonds were although introduced the early 1990s, but that they came into the limelight into 1995. A series of devastating natural disasters in the United States forced the American insurance companies to reassess their hedging strategies for overcoming even greater catastrophes that could cripple them with voluminous claims. Morgan Stanley agreed to underwrite the first public issue of insurance related securities named as Catastrophe Bonds (Cat Bonds) for short in November 1996.California Earthquake Authority (CEA) created by the State was the client to insure California homeowners forsaken by insurance companies after the Northridge earthquake. The plan was to market bonds to big institutional investors with a novel feature. The bond holders would earn 10 per cent, a huge return, but if any earthquake were to cause more than \$7 Billion in losses to the CEA, the bondholders were to lose their principal amount (The Financial Express, 2012). The time frame of Cat Bonds can be roughly divided into four phases:1990s – New development and an emerging market; 2000s – Cat Bonds maturity ; 2008-2009 – Restructuring after the Lehman crash;2010 onwards – Rapidly developing range of products and increased demand for the Cat Bonds.

The Mechanism

Cat Bonds are floating-rate fixed-income instruments that normally mature in three to four years. The principal raised at issuance is held in trust as collateral to back a predefined insurance risk, having a low probability, catastrophic exposure, such as a major Florida hurricane or a Tokyo earthquake. Cat Bonds transfer risk from the issuer to the bondholders; as they are tantamount to reinsurance, but held by capital market investors. Cat bond sponsors are typically insurance or reinsurance companies, who desire to offload peak exposures into the capital market (Strerge and Stichele, 2016). Cat Bonds are securities that pay regular coupons to the investors unless a predetermined event occurs, leading to full or partial loss of capital sum. The principal is held by a Special Purpose Vehicle (SPV) in the form of highly rated collateral and paid out to the hedging reinsurer to cover its losses if the triggering conditions, as defined in the bond indenture, have occurred (Braun, 2014).



Source: Risk Management Solutions, Inc. (2012)

There are four main participants in Cat Bonds: Sponsor, Special Purpose Vehicle (SPV), Investor, and Trustee. The sponsor usually is an insurance company or a reinsurance company which signs a reinsurance contract with SPV and pays the reinsurance premium to SPV. SPV connects the insurance market and the capital market and converts their insurance premium into Cat Bonds which are issued to investors. Then, the reinsurance premium and the funds coming from Cat Bonds investors are deposited in the trust account of the trustee and they are invested in short-term securities with low risk. When a catastrophic event takes place and its loss is higher than the pre specified trigger, SPV provides compensation, which is from the loss of Cat Bonds investors, to the sponsor according to the contract. Investors only receive a part of the principal and interest. If the catastrophic risk event does not occur or trigger during the term of the Cat Bond, bonds investors will receive their principal plus a high-yield compensation for the catastrophic risk exposure. It follows that SPV is the key to the Cat Bonds issue and its operation is directly related to the expected effect of Cat Bonds. SPV is the intermediary in the securitization of catastrophe risk and has a significant role in the risk diversification and financing funds. SPV converts the constant return of the high security assets into float return using swaps and forwards via the trustees, who manage the funds, in order to pay interests to Cat Bonds investors.

However, the final appreciation of the capital depends on the credit rating of the counter party. If the credit rating of the counterparty is low, the funds may shrink. In this case, investors of Cat Bonds will not receive the high-yield predetermined compensation. It means that the Cat Bondshave the credit risk, so the influence of the credit risk is to the Cat Bonds pricing (Liu, Xiao, Yand and Wen, 2014). A risk taker often called the sponsor, issues Cat Bond to one or more investors and the nominal amount of the bond is placed in a Special Purpose Vehicle. The investors receive regular payments, usually quarterly, called the coupon. If a certain insured event happens then the investor loses part or all of his capital and consequently part or all of his remaining coupons. The issuer of the bond receives part or all of the money in the SPV to mitigate his loss from the insured event. Each Cat Bond has a term which is typically less than five years and on average a little less than three years. The term can usually be extended if there is uncertainty in the determination of the loss. The size of the bonds has varied from a few million dollars to a few hundred million dollars. In recent years 'Shelf Programs' have become common. Under this arrangement, only part of the full nominal amount is issued initially and later the issuer has the option to issue more capital if it is necessary. This has the advantage of savings in administration costs and ease of issuance of capital when it is needed. Usually an independent natural hazards modelling agency carries out an analysis of the risk and provides details of the results including statistical summaries of the loss distribution. Very few Cat Bonds have had an annualised expected loss of more than 5%.

A Cat Bond may cover a variety of perils and territories such as US Hurricane, US Earthquake, European Wind, Japanese Earthquake, Mediterranean Earthquake, etc. Some Cat Bonds cover multiple territories and perils (Papachristu, 2011).

Triggers

There are different triggers of Catastrophe Bonds: Indemnity, Modeled Loss, Industry Loss and Parametric. The indemnity is the amount which has to be paid by the issuer. Using the indemnity model the bond will be triggered when losses meet the agreed upon amount (Waring, 2013). If a bond could cover losses of \$100 million in excess of \$200 million, meaning that the bond will be triggered if the insurer's losses exceed \$200 million, and will fully default if the insurer's losses exceed \$300 million. This is the most common type of trigger used by issuers as it has the advantage of no basis risk (Benck, 2016). The modeled loss is a variation of the indemnity loss, but this time the losses are predetermined using software that simulates the specific catastrophe. When a catastrophic event takes place, the losses of the actual event are compared to those simulated by the software. Once the losses pass a specific threshold, determined by the software, the bond is triggered (Waring, 2013). The trigger has an advantage to investors as losses are determined by an independent third-party and claims can be settled quickly once modeled loss estimates are complete. This trigger creates a basis risk to the issuer as modeled loss estimates may be less than actual losses incurred (Benck, 2016). In case of the Industry Loss, the bond is triggered when the loss to the insurance industry as a whole, passes a predetermined threshold(Waring, 2013). The trigger has an advantage to investors as losses are determined by an independent third-party and claims can be settled quickly once industry loss estimates are complete. This trigger creates a basis risk to the issuer as bond recoveries may be less than its share of industry losses (Benck, 2016). The Parametric model is easier to understand, because the bond is triggered not by the losses which are sustained, but by the parameters of the event itself (Waring, 2013). The trigger has an advantage to investors because the trigger is simple to determine, allowing for rapid and transparent resolution of losses. This trigger creates a basis risk to the issuer as bond recoveries may be less than actual losses incurred (Benck, 2016).

The Advantages

Catastrophe Bonds have less credit risk because the total amounts of funds which can be called by the reinsurer if a catastrophe occurs are placed in trust. In contrast, reinsurers do not hold funds equal to their maximum exposure, and thus reinsurers have insolvency risk. Catastrophe Bonds also reduce agency costs relative to equity capital, because the funds raised from the bond issue are placed in trust and cannot be used by managers unless a specified catastrophe occurs. Catastrophe Bonds involve lower tax costs than equity capital, just as debt financing in general has a tax advantage relative to equity financing. The catastrophe bond structure reduces financial distress costs relative to traditional subordinated debt, because the contingent payments are based on readily observable variable the occurrence of a catastrophe and the payments are agreed upon ex ante. Additional debt financing generally involves greater financial distress costs. Catastrophe Bonds have a moderating effect on reinsurance prices and prevent reinsurance prices from increasing any faster than they did. By presenting an alternative to traditional reinsurance, the development of Cat Bonds has forced reinsurers to become more competitive with pricing. Investing in Catastrophe Bonds could be recommended since they have presumably low or zero correlation with other currently traded assets and are therefore a promising instrument for portfolio enhancement. Also, Cat Bonds have attractive risk/return characteristics, especially for those large, sophisticated investors they are designed for, such as mutual funds/investment advisors, proprietary/hedge funds, and reinsurers. Returns on Catastrophe Bonds are proven to be less volatile than either stocks or bond (Yam, 2012). One of the attractive features of Cat Bonds is that they operate independent of financial market variables and constraints and have no correlation with stock market. Cat Bonds allows the investors to diversify their portfolio by investing in these insurance link securities. Cat Bonds huge rating agencies Standard & Poor's, Moody's and Fitch therefore; it has minimum exposure to credit risk. Cat Bonds minimize agency costs as compared equity capital, since the capital raised from issuing the Cat Bonds are held in trust and couldn't be utilized by insurer until and unless a specified catastrophe occurs. Cat Bonds are subject to lower tax costs in contrast to equity capital, because overall debt financing has a tax benefits as compared to equity financing. The SPV are registered in offshore locations such as Bermuda or Cayman Islands and their services are mainly used for regulatory capital, legal and tax purpose reasons. The catastrophe bond structure is designed in such a way that it lowers the chances financial losses, because the dependent payments are based on the incident of a catastrophe In contrast, debt financing usually comprises greater financial losses due to its volatile nature. It has low or zero association with other existing traded assets in the financial market. Thus Cat bond is a favorable instrument for portfolio improvement and diversification.

Furthermore, Cat Bonds have high return and low risk characteristics, especially for those giant investors they are designed which include but not limited to hedge funds, mutual funds, pension funds and reinsurers. Yield on Cat Bonds are less volatile in contrast to either stocks or bonds traded in financial market.

The Disadvantages

The use of Catastrophe Bonds is hindered by regulatory constraints that generally require that the bonds be issued by an offshore special purpose vehicle. As a result, Catastrophe Bonds can involve substantial transactions costs. Transaction costs indeed represent approximately 2 percent of the total coverage provided by a catastrophe bond for example, \$2 million for a security providing \$100 million in coverage. These costs include: underwriting fees charged by investment banks, fees charged by modeling firms to develop models to predict the frequency and severity of the event that is covered by the security, fees charged by the rating agencies to assign a rating to the securities, and legal fees associated with preparing the provisions of the security and preparing disclosures for investors. The price of a reinsurance contract would not typically include such additional fees. Others institutions avoid purchasing Catastrophe Bonds altogether because it would not be cost-effective for them to develop the technical capacity to analyze the risks of securities so different from the securities in which they currently invested. Catastrophe Bonds are available only to institutional investors. The market in Cat Bonds generally suffers from lower levels of liquidity relative to mainstream bonds. The dramatic



recent growth in the catastrophe bond market has in turn spurred the launch of some new insurance related businesses which could potentially undermine the long term growth prospects of the cat bond market (Yam, 2012).

Importance in Indian Context

The tragedy of Uttarakhand underlined the need of insurance. High coupon Cat Bonds which transferred the risk from insurer to super rich was the one answer. The result was another form of bond made available to the investors - catastrophe bonds, which prey on the greed of investors hungering for higher returns. To wit, an insurance company might have insured large properties in Uttarakhand sitting bang on the high seismic zone and prone to flood ravages. The premium, of course, would be high but should a disaster strike, it would prove to be woefully inadequate. Even reinsurance would not be able to lessen the debilitating impact on the insurer's profit and loss account. Had an insurer issued catastrophe bonds, however, it could have possibly insulated itself against such crippling losses by transferring them to the market. Let us say the bonds are offered for five years, each with a face value of Rs 10,000 and carrying an attractive coupon rate of 15 percent per annum, subject to a rider: in case a specified catastrophe, narrowly defined, breaks out, the bond holders would lose their shirts. Not only would they not be paid any further interest from then on but, more gallingly for them, they would lose the principal as well. The amount thus saved, by not redeeming the bonds, would be used to meet the insurance obligations. Effectively the bond holders pick up the tabs that were to be picked up by the insurers (Murlidharan, 2017).

Cat Bonds in India

India has long been at the forefront of weather risk protection with ICICI Lombard leading the way with its monsoon rainfall protection policies for local farmers. Now they have said that they intend to bring out catastrophe products for farmers as well to help protect them from other natural hazards such as floods. This could be a similar product to their weather insurance but utilizing catastrophe derivatives as a back stop. The recent floods in Bihar have been devastating for the country and some form of catastrophe pool or bond system seems an obvious answer to help India recover more quickly and help the farmers and business people to protect their livelihoods (Artemis, 2008). The Indian government 2009-2010 Economic Survey looked at how the economy was progressing and suggested the government's ideas for ways to further stimulate and mature the quick growing financial markets in India. The survey specifically cited Catastrophe Bonds as a great way to help their insurance companies transfer their catastrophe risks off balance-sheet and into the hands of advanced institutional investors.

The idea was welcomed by Indian insurance companies who were already involved in creation of alternative insurance products in areas such as weather and crop micro-insurance. The desire there was to utilize alternative methods to transfer risks to capital markets as much as possible and our contacts there suggest that an exchange traded mini-catastrophe bond may be a viable product in India (Artemis,

2010). India's national reinsurance company, General Insurance Corporation of India or GIC Re for short, was to look to Catastrophe Bonds as a potential source of risk capital and transfer as it seeks to provide cover for losses and access capital at cheaper rates, according to a report.GIC Re primarily operates in its home country, providing reinsurance solutions for risks in India, as well as more recently branching out into other countries across the Afro-Asian region, in South East Asia, the Middle East and Africa. As such any catastrophe bond that the reinsurer successfully brought to market could mark a new first in terms of risks and perils ceded for the insurance-linked securities (ILS) market. According to a report in the Economic Times of India, GIC Re was to attempt to be the first Indian company to sponsor a catastrophe bond issuance. It said that the reinsurer would seek to issue Cat Bonds in the U.S. to cover natural disaster risks such as earthquake, flood or tsunami. GIC Re was still in the early stages of planning a cat bond issuance it seems, but the issue had been discussed at board level and approval to pursue a cat bond issuance had been received (Artemis, 2013).

Objectives

- To study the concept of Cat Bonds.
- To explore the contemporary position of Cat Bonds in the Indian financial market.
- To explore the potential of Cat Bonds in India.

Research Method

The research study is exploratory in nature. It is based on secondary data. The secondary data used in the study has been sourced from various research journals, websites, literature survey, summary of different souvenirs, other publications in the public domain.

Discussions

Natural disasters, calamities and catastrophes are unavoidable and they cause great losses to the mankind and resources. Insurance appears as an instrument of risk management. But at the same time natural catastrophes are so voluminous that insurance and reinsurance companies by their normal business course are unable to compensate fully. It indicates the shortfall of insurance as a risk reduction tool. As the necessity is regarded as the mother of all inventions, it led to the introduction of Catastrophe Bonds (Cat Bonds) as a supportive tool to the insurers and the reinsurers with the help of capital market which has more risk bearing capacities to absorb and bear the huge losses caused by the catastrophic events. It is to note that it also covers not only the catastrophic losses but keeps insurance companies alive. In fact capital market stands to support the other financial sectors: the insurance sector. Simultaneously it also ensures much higher yields; on account of higher risk assumption the capital market investors are even ready to forgo their capital sums fully or partially which otherwise was not possible only by the insurance and reinsurance companies. One can say that it overcomes the deficiencies or lacking of insurance sector.

Conclusion

It is concluded that Cat Bonds as capital market instrument have emerged as an alternative risk instrument which not only covers the losses of catastrophes but also supports and strengthens the insurance sector.

Suggestions

Since it is comparatively a newer product, awareness level and pro-activeness for issuance, regulations and maintenance should be increased. Disaster management authorities of the countries should co-ordinate and should become bridge between the insurance sector and capital markets. Appropriate guidelines should be issued on the basis of conceptual framework and experience gathered. Government agencies, government corporations, other central and state financial institutions should also buy such investments for the risk spreading.

Implications

It is implicated that natural calamities, disasters, catastrophes cause loss to humans and their resources. Sometimes insurance products are not sufficient to cover such huge losses which happen at a time. Cat Bonds appears as supportive alternate to the insurance sector where capital market independently or along with insurance sector tries to bear the losses of catastrophe without getting ruined of insurance sector when a particular catastrophe or its parameter emerges. Cat Bonds make capital market higher earning possible. It also implies that Cat Bonds may be a good source of risk reduction and risk spreading instrument for country like India where geographical diversities always exists with great potential of stock market.

References

- Armetis(2008) Indian Market Moving Towards Catastrophe Derivatives and Bonds.E Newsletter.
- Armetis (2010) Indian Government Says 'Use Catastrophe Bonds' E Newsletter.
- Armetis (2013). India's GIC Re Approves Use of Catastrophe Bonds for Risk Transfer. E Newsletter.
- Barrieu, Pauline and Louberge, Henri (2007) Hybrid Cat-bonds. University of Geneva and Swiss Finance ,Swiss Finance Institute.
- Benck, Darin (2016), Catastrophe Bonds, Risk And Regulatory Consulting.
- Braun, Alexander (2014), Pricing in the Primary Market for Cat Bonds: New Empirical Evidence. Working Papers on Risk Management and Insurance, No. 116.
- Edesess, Michael (2014), Catastrophe Bonds: An Important New Financial Instrument, Edhec Business School.Working Paper.
- Insurance Information Institute (2017). Catastrophe Bonds. Fact Statistics.

- Liu, Jian; Xiao, Jihong; Yan, Lizhao and Wen, Fenghua (2014), Valuing Catastrophe Bonds Involving Credit Risks. Research Article. Hindawi Publishing Corporation. Mathematical Problems in Engineering. Volume 2014.
- Mattucci, Lauren (2016), The Use of Catastrophe Bonds as a Means of Economic Development in Emerging Economies, Honors Theses and Capstones. 318.
- Murlidharan, S (2017), Uttarakhand Fund Losses: Why We Need Catastrophe Bonds?
- Papachristou, Dimitris (2011), Statistical Analysis of the Spreads of Catastrophe Bonds at the Time of Issue.
- Risk Management Solutions, Inc. (2012). Cat Bonds Demystified RMS Guide to the Asset Class.
- Shadra, Niharika and Kalyana Challapalli (2014), Introduction to Catastrophe Bonds, Nishka, Vol 5 Issue 50.Christ University Institute of Management, Kengeri Campus.
- Tellis, Steevan Robert and Joseph, Ajoy S (2012), The Scope of Catastrophe Bonds as a Catastrophe Risk Financing Alternative in India: A Study Focused on Catastrophe Losses over the Last Five Years, Excel International Journal of Multidisciplinary Management Studies. Vol.2 Issue 2
- The Financial Express (2012), Catastrophe Bonds: Finding Relevance in India. Archive.
- Waring, David (2013), Catastrophe Bonds What they are and how they Work. Learn Bonds: Bonds and Finance News.

Webliography

- www.actuaries.org
- www.artemis.bm/blog/2008/09/08/indian-market-moving-towards-catastrophederivatives-and-bonds
- www.artemis.bm/blog/2010/02/28/indian-government-says-use-catastrophe-bonds
- www.artemis.bm/blog/2013/10/02/indias-gic-re-approves-use-of-catastrophe-bonds-for-risk-transfer
- www.artemis.bm/library/what-is-a-catastrophe-bond
- www.financialexpress.com
- www.firstpost.com/business/uttarakhand-flood-losses-why-we-need-catastrophe-bonds-
- www.josephinevyam.com
- www.iii.org/printpdf/fact-statistic/catastrophe-bonds
- www.ivw.unisg.ch/~/media/internet/content/dateien/instituteundcenters/ivw/wps/ wp116.pdf
- http://en.entropics.se/cat-bonds/the-history-of-cat-bonds
- http://scholars.unh.edu/honors





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Abstract

Indian food is different from rest of the world, not only in taste but also in cooking methods. It reflects a perfect blend of various cultures and ages. Just like Indian culture, food in India has also been influenced by various civilizations, which have contributed their share in its overall development and the present form. Consumer behavior influenced by cultural, Social and Personal factors. The present study has revealed the impact of culture on buying behavior of consumers for food products. The study concluded that a right identification of customer-specific cultural dimensions and proper consideration for the food products, marketing play a pivotal role in ensuring success in the highly competitive market scenario. Inputs about culture and value dimensions can be of immense use to position their marketing road map to minimize chances of erroneous decision-making.

Keywords: Culture, Consumer Behavior, Food Products, Fast Foods.

Introduction

Cultural factors have a significant impact on customer behavior. Culture is the most basic cause of a person's wants and behavior. Growing up, children learn basic values, perceptions and wants from the family and other important groups. Marketers are always trying to spot "cultural shifts" which might point to new products that might be wanted by customers or to increased demand. The impact of culture is so natural and automatic that its influence on behavior is usually taken for granted. Authors define culture as "the sum total of learned beliefs, values, and customs that serve to direct the consumer behavior of members of a particular society".

The study of Consumer behavior includes the study of what they buy, why they buy, how they buy, when they buy, from where they buy, and how often they buy. An open-minded consumer-oriented approach is imperative in today's diverse global marketplace so that a firm can identify and serve its target market, minimize dissatisfaction, and stay ahead of competitors. Final consumers purchase for personal, family, or household use.

The food markets in India and the rest of the world are getting increasingly more and more complex and competitive. Some of the important reasons for such changes are like increasing pace of globalization, entry of large international and domestic firms in the food sector, intra-regional movement of consumers, larger proportion of working female population etc. There is increasing number and varieties of food products in the country and the above socio-economic changes have resulted in increased interest in the food sector among the business practitioners and researchers.

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India is among the top 10 most frequent consumers of fast food in the world. The top 50 percent consume 80 per cent fast food in a market that is Rs. 40,000 crore-strong and growing at a robust 40 percent annually. Over 100 million spend close to \$1 billion (Rs. 4000 crore) annually on fast food. No wonder global chains are re-inventing themselves and expanding networks in India. If McDonald's offers McAlootikka, at Pizza Hut it is chicken tikka masala toppings. If KFC plans 1000 restaurants by 2014, Subway is gearing up to invest over \$40 million. Home grown chains like Pizza Corner, Nirulas and Haldiram's and Not Just Piranhas are also growing in strength.

Food diversity in India is reflective of the diverse cultural background in India. Traditionally Indians prefer to consume home cooked food which is accepted to be superior and purer than food cooked away from home. Increasing awareness and influence of western culture has caused shift in food consumption patterns among urban Indian families. Since liberalization of the Indian economy in the early 1990s many foreign fast food companies have entered the Indian markets which has caused a significant change in the lifestyles and the food preferences of Indians. Fast food has particularly gained popularity and wide acceptance in the Indian palate after the multinational fast food players began customizing their product offering to suit Indian tastes. The MNC fast food companies began offering vegetarian meals and selected non-vegetarian options excluding beef and pork totally from their menu.

Review of Literature

After the development of Indian economy, the importance of Indian market is gradually increasing, especially in the fast-food industry & Indian traditional culture does influence the collectivism in the consuming behavior of Indian consumer. Culture has an overwhelming impact on Indian fast-food consumers and the differences between Indian and western cultures also affect fast-food consumer behavior (Gupta, 2009). Eating at home remains very much inbuilt in Indian culture and changes in eating habits are very slow moving with barriers to eating out entrenched in certain sectors of Indian society. The growth in nuclear families, particularly in urban India, exposure to global media and Western cuisine and an increasing number of women joining the workforce have had an impact on eating out trends which has lead us in a new era of eating "Fast Food" (Keshwani, 2006).Understanding cultural differences of various cultural is very important to operate in market scenario. Such knowledge will definitely give a strategic competitive edge by which company can distinguish itself from that high caliber competitor. Companies need to build awareness about different culture, the amount of effort needed to do this depend on the type of business operation which has under taken(Amulya, 2011).

In recent years, a major food consumption trend in urban parts of developing countries is that more consumers are eating more meals outside their homes. Most of the growth in away-from-home eating has been in the fast food sector. In this increasingly competitive industry, while franchising has become a popular vehicle for the fast food sector's growth and maintaining profitability in the shrinking market share (Shah,2008). The fast food industry has a history of more than 100 years. Because it has an early start, it has established a model of standards of technology, capital, brand, service, the company

culture and the image design, which have distinctive features. Some authorities point that usually the price of the fast food is two and half or even three times more expensive than it its cost to the company. In the global market, the fast food has a fierce competition with numerous companies(Cavin, 2011).Fast food restaurants are playing an important role for people who are seeking for great value, cheaper price and within the shortest period of time. However, ingredients for fast food are usually cooked by using cheap industrial oils, usually deep fried or re-heated in a microwave. All these methods keep the overheads down and the preparation costs to a minimum, ensuring that the food can be sold at rock bottom prices, while the outlets still manage to make a hefty profit(Asijan, 2010).Cleanliness of the product, free from pesticides, freshness, good for health, and clean place of sale are some of the most important attributes, which are rated very highly by people in India while buying food products. Value for money, overall quality, taste, availability of variety of products at same place, seasonality for the product, flavor, good display of products, nearby availability and good ambience are some other important parameters.

Promotional offers do not have much impact on the sale of food products and people did not rate food products from other country very highly for purchase decision(Bardhanand Gupta, 2011). The young Indian consumers have passion for visiting fast food outlets for fun and change but home food is their first choice. They feel homemade food is much better than food served at fast food outlets. They have the highest value for taste and quality (nutritional values) followed by ambience and hygiene. Three dimensions (service and delivery dimension, product dimension, and quality dimension) of fast food outlets' attributes are identified based on factor analysis results (Goyal and Singh,2007).

All market value are represented by operator buying price that is the amount spent by food service operator on the food served by them and not the amount spent by the consumer on their food and drink in this fast food market is there for, valued in terms of the total amount of money for which the manufacturers compete. Lehiri (2008) and Marsiglia (2010) revealed in their studies that Cultural value systems have a direct effect on consumer behavior and vary by the major cultural dimensions between countries but become increasingly complex when people migrate to foreign countries that have different cultural dimensions. Sharma (2009) studied that the culture affects to the owned product and rented product separately. When a consumer owned the product then the level of belongingness is different.

Objectives of the Study

- To study the impact of culture on consumer behavior.
- To study the impact of culture on consumer preference for fast food.

Research Method

Research Approach : The research approach was descriptive as the study was directed towards the "impact of cultural value on consumer behavior towards the fast food".

Area of Study : The study has been carried out in various fast food outlets/Shops of Ujjain and Indore city of Madhya Pradesh.

Sampling Method : Purposive.

Sample Size: 100 respondents from different demographic profile.

Data Collection : Primary data has been collected with the help of structured questioners using 5 point Likert scale and the secondary data for the research has been collected through books, magazines, published journals, and through previously conducted research.

Data Analysis : Data has been arranged in tabular form and analyzed with the help of frequency distribution.

Findings

The study revealed that 50 per cent of respondents were disagreed for hygienic preparation of foods in fast food restaurants and 43 per cent were agreed. 27 per cent responded that restaurants were not clean, but 63 per cent agreed for cleanliness of fast food outlets. 64 per cent were disagreed that employees of fast food restaurant have neat appearance and only 33 per cent were agreed with it.

Study also found that 53 per cent respondents generally avoided the health considerations to visit fast food oulets, but 30 per cent were found to be health considerate. 50 per cent respondents agreed that they always visit fast food outlets with their friends. 47 per cent prefereed fast foods as a change for taste. 58 per cent respondents disagreed that quality ingredients are used in preparation of fast foods. Study also found that 90 per cent consumers think that fast food is a ready to eat foods. Based on findings,49 per cent consumers disagreed that fast food have nutritional value but 44 per cent were agreed. Similarly, 50 per cent consumers disagreed.

Discussion

Study revealed that consumers below 30 years of ageagreed that there is no hygienic preparation of foods in fast food restaurants but like fast food so they prefer it. According to them culture and religion have importance in their life, but not for preference for fast food as they believe that foodies has no religion. Study also found that fast food is not much unhealthy for many, so they prefer it. However, for someone it becomes compulsion to eat fast foods as they have no time for cooking foods and living away from their home and family. Many of respondents were agreed that visiting fast food outlets provide an opportunity for eating outside with their friends and family. The study also revealed that consumers more than 45 years of age occasionally prefer fast foods, as they believe fast foods are deficient of nutritional values and not good for health. With advancement in age consumers also learn to avoid the foods which are not prescribed by their cultural value system. According to them culture always have an impact everywhere on their life. They think that restaurants are not so much neat and clean as their homes.

Conclusion

The study has identified objectives to study the impact of culture on consumer behavior and to study the impact of culture on consumers' preference for fast foods. Findings of the study revealed that the culture affects the consumer behavior for fast foods consumption, but its impact on lower age group of respondents was not found to be significant. The other parameters like time and taste of food are also vital. Study revealed that consumers, who have shortage of time for cooking foods, prefer fast foods because it is a ready to eat food. Consumers also want to change taste from their regular eating's and they prefer fast foods. It was also observed that consumers generally enjoy fast foods in party or with friends and family. Further, findings revealed that the age has an impact on consumers' fast food consumptions. It was observed that if choice is given, then consumers above 45 years of age occasionally consume fast foods. Thus, the findings of the study revealed that culture plays an important role on consumers' consumption behavior for fast foods but other factors like age, taste and time also plays a decisive role.

References

- Baroota K.D. (2008) Experimental Design in Behavioural Research, New Age International Limited, New Delhi.
- Gupta S.P. (2007). Statistical Methods, S. Chand and Sons, New Delhi.
- Hawkins De., Best Roger J. and Caney Kenneth A. (1996) Consumer Behaviour. Tata McGraw Hill Publications, New Delhi.
- Henry (2006). Consumer Behaviour and Marketing Action. Thomsons Learning, New York.
- Kaur P. (1996). Human Resource Development for Rural Development. Annol Publication, New Delhi.
- Kotler, P. (2000). Marketing Management. Prentice Hall of India (P.) Ltd., New Delhi.
- Saxena, R. (2002) Marketing Management. Prentice Hall of India (P) Ltd., New Delhi.
- SchiffmanLeion G. and Leslie Lazar Kanuk (1997) Consumer Behaviour. Prentice Hall of India (P) Ltd., New Delhi.
- Sen Gupta, S. (1999). Brand Positioning. Tata McGraw Hill Publishing Co. (P) Ltd., New Delhi.
- Soloman M. (2003). Consumer Behaviour Buying, Having and Being, Pearson Education Inc., New Delhi.

To Study the Impact of Salary and Job Characteristics on the Job Satisfaction of Contractual Faculties of Government Colleges

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Abstract

Many contractual faculties who work in the government or the private sectors believe that the magical way to increase the job satisfaction is to raise the salaries and financial security, personal and professional growth. The employees also share these ideas, believing that the increase of the salaries will absolutely increase the job satisfaction, which will reflect on the motivation to work and raise the level of human performance. Job satisfaction portrays the perception of the person towards his or her job, job related activities. It is a combination of psychological and emotional experiences at work. Job satisfaction is one of the most widely discussed issues in personnel and human resource management. Attempts to improve performance in educational institutions will never succeed if faculties' job satisfaction is ignored. This implies that motivated and satisfied college faculties are most likely to affect the students'learning positively while the opposite of that may have negative impacts on students' performance. Educational leaders and administrators/managers have to pay special attention to the phenomena of motivation and job satisfaction. The purpose of this study is to provide a greater understanding of the effect of job characteristics and salary on job satisfaction of contractual faculties (teaching staff) at government engineering institutes. The data has been collected by applying random sampling method. Data will be analyzed by applying correlation analysis.

Keywords: Job Satisfaction, Salary, Job Security, Job Characteristics, Motivation.

Introduction

Job satisfaction portrays the opinion of the person towards his or her job, job-related activities, and environment. It is an amalgamation of psychological and emotional experiences at work.

Faculties who are not satisfied with their job could not be committed and productive and would not be performing at the best of their capabilities. Faculty's occupation is facing problems related to faculties' job satisfaction. The general opinion is that faculty in the government college are dissatisfied with their occupation. Faculty job satisfaction, while difficult to define, may be even more not easy to measure. Some important factors influencing job satisfaction may be classified into two categories.

- A) Environmental Factors Job content, professional level, Pay and Promotion, Workgroup and Supervision.
- B) Personal Factors Age, Gender, Educational level, Marital status, and Experience.

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Job satisfaction is determined by how well the result of the job meets the expectations of the employee or they surpass the expectations. Job satisfaction and dissatisfaction are functions of the perceived relationship between what one expects and obtains from one's job and how much significance or value one attributes to it." In this global world, job satisfaction has been the main issue. It is very crucial to the long-term growth of any educational system around the world. Therefore, satisfaction in needed in the behavior of a college faculty if he/she has to present productive activities in the college. Job satisfaction has been considered as a vital subject all over the world as it is compulsory for the growth of educational system and development of society in all over the world. In this context, the satisfaction of occupation is related to meeting the wants and demands of faculties' in order to motivate and develop their skills as well as performance. The satisfaction is very important in all aspects of any occupation; the occurrence of skills, knowledge, and competencies depends upon the satisfaction of behavior of persons. Thus employment satisfaction may be an ensuing feeling of satisfaction which the employee achieves by ahead from the job what he looks ahead to from it to satisfy his wants. It may be a function of the need straight or expectation and the potentiality of the job to offer for the achievement of needs.

Review of Literature

Basu (2009) studied job satisfaction and mental health among faculties: He found that employment satisfaction does have an important relationship with mental health in case of primary school teachers. When gender, marital status, and locality of the primary school teachers were taken into reflection, satisfied teachers verified significantly better mental health than their unsatisfied counterparts. Bullock (1952) defined job satisfaction as an attitude which results from a balancing and summation of many specific likes and dislikes qualified in affiliation with the job. Most commented textbook author Ricky W. Griffen defined it as an attitude that reflects the stage to which an individual is appreciative by or fulfilled in his or her occupation.

Davis and Nestrom (1985) Job satisfaction correspond to the level to which expectations are and counterpart the real awards. Job satisfaction is closely associated with that individual's procedures in the work lay. Kaliski (2007) Job satisfaction is a worker's sense of attainment and success on the job. It is generally supposed to be directly associated with productivity as well as to individual well-being. Job satisfaction supplementary implies passion with one's work. Job satisfaction is the key constituent that leads to recognition, income, promotion, and the attainment of other goals that direct to a feeling of fulfillment.

Statt (2004) Job satisfaction can be defined also as the level to which an employee is content with the rewards he or she gets out of his or her job, particularly in terms of inherent enthusiasm. Armstrong (2006)the term job satisfaction refers to the attitude and feelings natives have on the subject of their work. Sympathetic attitudes towards the job delegate job satisfaction. Pessimistic and unfavorable stances towards the job allocate job dissatisfaction. George and Jones (2008) Job satisfaction is the collection of feeling and beliefs that people have about their current job. People's levels of degrees of job satisfaction can range from extreme satisfaction to extreme dissatisfaction. In addition to having

attitudes about their jobs as a whole, people also can have attitudes about various aspects of their jobs such as the kind of work they do, their coworkers, supervisors or subordinates and their pay.

Research Method

Descriptive Research Design was used for this research based on the implementation of survey method. The researcher has used primary data for the principle of this study. We used questionnaires method for the study between different gender, age, instruction level, marital status, and understanding.

Sampling Design

Simple Random Sampling technique was adopted for this study.

Sample Size

The total sample size in the present study was 50 Contractual faculties of Government Colleges of Indore City.

Data Collection Method

The researcher has used primary data for the purpose of this study

• Primary Data: The data was collected through Questionnaire.

Data Analysis Method

The data collected from the sample was analyzed by using Correlation test by using Sestets software.

Analysis and Interpretation

Job satisfaction is a broadly studied feature of industrial psychology and it has been viewed by the industrial psychologist that the job satisfaction is a pleasant and positive attitude possessed by an employee towards his job. Positive values suggest a linear positive correlation between variable whereas Negative values define a linear negative correlation. A value of zero denotes no linear correlation.

The following table exhibited the total of job characteristics (TJC) and the total of job satisfaction (TJS). The job satisfaction questionnaire was interpreted based on the correlation test below

Table 1 Correlation between TJC and TJS

Pearson Correlation Matrix

| | TJC | TJS |
|-----|-------|-------|
| TJC | 1.000 | |
| TJS | 0.778 | 1.000 |

Above table demonstrated a significant correlation (p<0.001) correlation between job characteristics and job satisfaction with Pearson correlation coefficient r=0.778, this data also suggest a strong positive and linear correlation between the respective two variables.

Scatterplot Matrix

A.



The following table exhibited the total of salary and total of job satisfaction (TJS).

Table 2 Correlation between TS and TJS

Pearson Correlation Matrix

| | TS | TJS |
|-----|-------|-------|
| TS | 1.000 | |
| TJS | 0.118 | 1.000 |

Table 2 demonstrated a significant correlation (p<0.001) correlation between job characteristics and salary with Pearson correlation coefficient r=0.118, this data also suggest positive and linear correlation between the respective two variables.

Scatterplot Matrix



Findings

This research focuses on the factors affecting employee job satisfaction in government engineering college.

- Responsibility, in this survey, found that if increase the responsibility of employee the motivation level of faculties will increase.
- Involvement in decision making, if give the chance to contractual faculties to involve in a decision-making process of college they feel more sense of belonging to college and more satisfied with their work.
- If develop leadership quality of faculties and give the responsibility to lead the team they feel more sense of belonging to college so the satisfaction of contractual faculties will increase.
- If the employees get financial security like financial incentives then they will be more committed toward their work and will be satisfied.
- If the organization provide succession plan to the employees then they will feel motivated as they will get chances of personal and professional growth.
- The employees should be praised and recognized for their accomplishments by the top management so the job satisfaction level of faculties will increase.
- The employees' status within the organization should be familiar and retained. so the satisfaction of faculties will increase.

Conclusion

Job satisfaction represents one of the most complex areas facing today's managers when it comes to managing their employees. This survey studied that job characteristics like responsibility, involvement in decision making, recognition, personal and profession growth, status and position, sense of belonging, financial security are highly affected and salary is not highly affected the satisfaction level of facultiesInHerzberg's two-factor theory of motivation there are two factors hygiene factors and motivational factors. According to this theory the hygiene factor is not a motivational factors which is also proved by this survey that the hygiene factors like salary is not a motivation factor and does not help to increase the satisfaction level of faculties in government college and in other side motivating factors like responsibility, recognition, growth and promotional opportunities and involvement in decision making help to increase the job satisfaction of faculties.

References

• Akhtar, S.N., Hashmi, M.A., Naqvi, S.I.H. (2010), A Comparative Study of Job Satisfaction in Public and Private School Teachers at Secondary Level ,Procedia - Social and Behavioral Sciences, 2(2), 4222-4228.

• Ali, N., Khan, M. S. and Alam, Z. (2005), Effect Oo Locus of Control, Sex and Marital Status on Job Satisfaction. Psycho Linguistic Association of India, 35(1), 25-28.

ZZ

- Basu, R. (2009), Job Satisfaction And Mental Health Among Teachers .A Survey Experiments in Education, Vol.XXXVII (04).
- Bindu, C.M, (2007), Relationship Between Job Satisfaction and Stress Coping Skills of Primary School Teachers, EDUTRACKS, Vol. 06(05).
- Dixit.P. (2005), Job Satisfaction Among Primary and Secondary School Teachers. Fourth Survey of Educational Research. Vol. –II, NCERT, New Delhi.



Capital Structure Decisions and Corporate Profitability

Rekha Melwani* , Manish Sitlani**

Abstract

The Capital Structure decisions are one of the vital financial decisions for an enterprise; such decisions affect the profitability of an enterprise to the great extent. Capital Structure refers to the combination or mix of debt and equity which a company uses to finance its long term operations. Capital structure refers to the way a corporation finances its assets through combination of equity, debt or hybrid securities. The present study is an attempt to measure the association between capital structure decisions and corporate profitability for selected automobile firms listed at Bombay Stock Exchange (BSE). The capital structure is measured in terms of mix of debt and equity (Debt/ Equity) and the profitability has measured in terms of Return on Total Assets (ROA) and Return on Equity (ROE).

Keywords: Profitability, Capital Structure, Debt-Equity Mix, Return on Assets, Return on Equity.

Introduction

Capital Structure refers to the combination or mix of debt and equity which a company uses to finance its long term operations. Capital structure refers to the way a corporation finances its assets through combination of equity, debt or hybrid securities. A firm's capital structure is then the composition or 'structure' of its liabilities. The capital structure decisions are vital one because it impacts the financial performance of the company. Thus, the present study is an attempt to analyze the effect of capital structure of the company on its financial performance. According to the study by Abor (2005), the capital structure is defined as the mix of debt and equity that the firm uses in its operation. The capital structure of a firm is a combination of different securities. In general, firms can select among many alternative capital structures.

Firms can also issue dozens of different securities in countless combinations to maximize overall market value. Firms can use either debt or equity capital to finance its assets. The best choice is a mix of debt and equity. In the case where interest was not tax deductible, firms' owners would be uninterested as to whether they used debt or equity, and where interest was tax deductible, they would maximize the value of their firms by using 100% debt financing (Azhagaiah and Gavoury, 2011).

In today's business world of cut throat competition, performance is an ambiguous phenomenon and it can be measured and interpreted in a variety of different ways (Bains 1951; Mehta 1955; Kakani et al. 2001; Jones et al. 2006). Performance simply reflects the degree of success achieved in terms of stated objectives and as the objectives differ widely so does the concept of performance (Pandey, 2006). Steer and Cable (1979) observed that there is a separation between ownership and management in large

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companies and in such companies, different interested parties view the company's performance from different standpoints. Penrose (1959) has precisely remarked that shareholders, i.e., owners are directly interested in the relationship between profits (after fixed interest payments) and the nominal capital issued, while managers are in the 'effective' utilization of capital, i.e., relationship between profits (before interest payments) and the total real capital employed.

The profitability of a company can by described as its ability to generate income which surpasses its liabilities. Profitability is usually measured by different ratios such as ROA and ROE (Priyaet.al 2013).

Automobile Industry at a Glance

On the canvas of the Indian economy, automotive industry occupies an important place. Due to its deep forward and backward linkages with several key segments of the economy, automotive industry has a strong multiplier effect and is capable of being the driver of economic growth. A sound transportation system plays a crucial role in the country's rapid economic and industrial development. The well-developed Indian automotive industry ably fulfils this catalytic role by producing a wide variety of vehicles: passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles such as jeeps, scooters, motorcycles, mopeds, three wheelers, tractors etc.

Automotive Industry comprises of automobile and auto component sectors and is one of the key drivers of the national economy as it provides large-scale employment, having a strong multiplier effect. Being one of the largest industries in India, this industry has been witnessing impressive growth during the last two decades. It has been able to restructure itself, absorb newer technology, align itself to the global developments and realize its potential. This has significantly increased automotive industry's contribution to overall industrial growth in the country.

Review of Literature

Capital Structure is referred to as the way in which the firm finances itself through debts, equity and securities. It is the mix of debt and equity that is required for a firm to finance its Assets. The companies try to find out the optimum capital structure where the cost of overall capital will be minimized or in other terms it will improve the financial performance of the company.

T. Velnampyet. al. et (2012) investigated the relationship between capital structure and profitability of ten listed Srilankan Banks over the past eight years period from 2002 to 2009. The result of the study showed that there is negative association between capital structure and profitability except the association between debt to equity and return on equity. The result further showed that banks were highly geared institution as 89% of the total assets are represented by debt. Riyaz Ahmed K. (2012) examined the determinants of Capital –Structure – size, business risk, earning rate, dividend payout, debt service capacity and degree of operating leverage - of the companies listed in Automobile Index of the National Stock Exchange (NSE). Seven variables Multi regression model has been used to access influence of defined explanatory variables on capital structure. The result of the study showed that out

of the six above said variable the four variables viz. dividend payout, debt service capacity, degree of leverage, and business risk are statistically significant determinants of financial leverage. The other variables like corporate size and earnings rate are statistically insignificant determinants of financial leverage and showed a negative influence on financial leverage.

Mishra (2011), identified the determinants of Indian Central PSUs' capital structure.. A sample size of 48 profit making manufacturing PSUs was considered for the time period of 2006 to 2010. Multiple regressions had been used to find out the factors affecting capital structure. The results showed that the capital structure (Total Borrowing to Total Assets) of the profit making PSUs was affected by Asset Structure (Net Fixed Assets to Total Assets, NFATA), Profitability (Return on Assets, ROA) and Tax. Unlike suggestion of pecking order hypothesis, growth (defined as growth in total assets) is positively related to leverage. As predicted by theory NFATA and ROA are respectively positively and negatively related to leverage. In contradiction to theory tax and leverage are negatively related. Firms with less effective tax rate have gone for more debt. None of the other variables like non-debt tax shield (NDTS), Volatility, Size were found to be significant.

Ebaid (2009) investigated that impact of capital structure choice on firm performance in Egypt. The study conducted on non-financial Egyptian listed firms from 1997-2005. The result showed that there is a negatively significant influence of short-term debt and total debt on financial performance measured by ROA, but no significant relationship founded between long-term debt and this measure of financial performance. The study also found that there is no significant influence of debt on financial performance. In general it was concluded by the study that capital structure choice has a weak-to-no impact on firm's performance in Egypt. Al-Salehet, al.(2009), assessed and explained the leverage of Saudi companies during the period of 2003-2007 for 53 companies. The study tried to investigated empirically the effect of Profitability, Growth opportunities, firm size, tangibility, ownership structure, business risk, dividend payment, liquidity (firm specific attributes) on the financial leverage. The result showed that capital structure choice is positively impacted by profitability, size, growth opportunities, and institutional ownership. It is negatively affected by tangibility, government ownership, family ownership, business risk, dividend payment and liquidity.

A study by Malabika and Jackline (2009) determined the debt ownership structure and the main objective of the study was to investigate the relationship between a firm's debt ownership structure and agency cost, bankruptcy cost, growth, profitability, non-tax shield, and collateral value. The study found that the firm that has higher profitability and higher tangibility preferred long- term debt and the short- term debt in emergency, finally and bankruptcy cost associated with debt ownership structure is mainly determinants such as collateral value, profitability and a bankruptcy cost associated with debt ownership structure of selected sample units of the study.

Abor (2005) investigated the relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange (GSE) during a period of 5 years and found that a significant positive relation between the ratio of short-term debt to total assets and ROE. However, a negative

relationship between the ratio of long-term debt to total assets and ROE was found. With regard to the relationship between total debt and return rates, the results show a significantly positive association between the ratio of total debt to total assets and return on equity.

Anand (2002) studied eighty one CFOs of India to find out about their corporate finance practices vis-a-vis capital budgeting decisions, cost of capital, capital structure, and dividend policy decisions. It analyzed the responses by the firm characteristics like firm size, profitability, leverage, P/E ratio, CFO's education. The results of the study showed that shareholder value maximization objective is widely used by corporate India now than before. Large firms and growth firms placed substantial emphasis on the EVA maximization objective. On the other hand, the objective to reduce side costs in the form of conflicts amongst the various stakeholders of the firm is not very popular.

Objective of the Study

To explore the correlation between Capital Structure Decisions and Profitability of selected Automobile firms in India listed at BSE.

Hypotheses

In order to meet the objective of the study, the following null hypotheses were proposed and tested:

 $H_{0(1)}$: There is no significant association between capital structure decisions and Profitability (measured in terms of Return on Assets) of Selected Automobile firms listed at BSE, India.

 $H_{0(2)}$: There is no significant association between capital structure decisions and Profitability (measured in terms of Return on Equity) of Selected Automobile firms listed at BSE, India.

Methodology

The present study has been undertaken with the basic objective of evaluating the interrelationship between capital structure and profitability of selected automobile firms listed at BSE, India. The study is descriptive in nature and five automobile firms were selected for the study. Capital structure is measured by ratio of total long term debts to equity (Debt-Equity Ratio). The profitability of the company was measured by Return on Assets (ROA) and Return on Equity (ROE). The data for this study was gathered from the Annual Reports published by the selected companies. In addition, another source of data was through reference to the review of different articles, papers, and relevant previous studies. The data has taken for period of 2011-2016. To achieve the research objectives correlation analysis is applied. The sample of the study comprises of five automobile firms listed at BSE, India and these are Bajaj Automobiles Limited, Hero Motocorp Limited, TVS India Limited, Eicher Limited and Force India Limited.

Measurement of Variables

Capital structure decisions of the respondent firms have been considered as independent variables of the study and have been measured by Debt Equity Ratio. On the other hand, Profitability of
the respondent firms was dependent variable of the study, which has been measured in terms of Return on Assets Ratio (ROA) and Return on Equity (ROE). The formulae for calculating these variables have been shown below:

| Table T Katlo Analysis | | |
|-----------------------------|---|--|
| Capital Structure Decisions | Debt Equity Ratio = <u>Total long term Liabilities</u> Shareholders' Funds | |
| Profitability | 1. Return on Assets (ROA) = $\frac{\text{Net Profit after tax}}{\text{Total assets}}$ | |
| | 2. Return on Equity (ROE) = $\frac{\text{Net Profit}}{\text{Equity}}$ | |

Analysis and Interpretation

Correlation Analysis

Correlation analysis depicts the interrelationship between two variables .It shows the strength of relationship between two variables. In this study the correlation co-efficient analysis is under taken to find out the relationship between capital structure and profitability of the company. It shows the strength of relationship exist between capital structure and financial performance.

| 1 5 | | |
|----------------|---------------------|------------------------|
| | | Return on Assets (ROA) |
| | Pearson Correlation | 0.305* |
| Debt to Equity | Sig. (2-tailed) | 0.047 |
| | Ν | 5 |

Table 2 Correlation: Debt to Equity and ROA

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

The above table indicates the relationship between Debt to Equity ratio with profitability, when profitability measured in terms of Return on Assets (ROA). The correlation coefficient value is values (R=0.305) which shows that correlation is positive and moderate. The positive correlation between Capital Structure and profitability is statistically significant as the value is less than 0.05.

| | | Return on Assets (ROA) |
|----------------|---------------------|------------------------|
| | Pearson Correlation | 0.214* |
| Debt to Equity | Sig. (2-tailed) | 0.325 |
| | Ν | 5 |

Table 3 Correlation: Debt to Equity and ROE

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

The above table indicates the relationship between Debt to Equity ratio with profitability, when profitability measured in terms of Return on Assets (ROA). The correlation coefficient value is values (R=0.214) which shows that correlation is positive and weak. The positive correlation between Capital Structure and profitability is statistically insignificant as the value is more than 0.05.

Conclusion

The capital structure decision is important for any business organization. The decision is important because of the need to maximize returns to various organizational constituencies, and also because of the impact such a decision has an organization's ability to deal with its competitive environment. The relationship between Capital structure and profitability of the company has been proved with correlation exists between them. The capital structure has measured in terms of Debt to Equity and the profitability of the company has been measured by Return on Assets (ROA) and Return on Equity (ROE). The correlation coefficient between Debt to equity and ROA is 305 which is positive and moderate and statistically significant. The correlation coefficient between Debt to equity and ROE is 0.214 which is positive and weak but statistically insignificant. The study concluded that the Capital structure has significant impact on the profitability of the selected automobile companies.

References

- Abor, J., (2005), The effect of capital structure on profitability: empirical analysis of listed firms in Ghana. Journal of Risk Finance, 6(5), pp. 438-45.
- Alsaeed K. (2005), The Association Between Firm-Specific Characteristics and Disclosure: The Case of Saudi Arabia". The Journal of American Academy of Business, 7(21), PP 310-321.
- Azhagaiah, Ramachandran and Candasamy Gavoury, (2011), The Impact of Capital Structure on Profitability with Special Reference to IT Industry in India, Managing Global Transitions 9 (4), pp. 371–392.
- Bains, J.S., (1951), Relation of Profit Rate to Industry Concentration: American Manufacturing, 1936-1940, Quarterly Journal of Economics, 65, pp. 293-324.
- Chander Subhash, Aggarwal Priyanka (2008), Determinants of Corporate Profitability: An Empirical Study of Indian Drugs and Pharmaceutical Industry, Institute of Management Technology, 12(2).
- Dixit K.S., Modak J.P, Singh M.P, Operational Challenges in Automobile Industry: A critical review of Literature, International Journal of Advanced Engineering Sciences and Technologies, 10 (2), pp 285-299.
- Ibrahim Ei-Sayed Ebaid, (2009), The impact of Capital-structure choice on firm performance: empirical evidence from Egypt, The Journal of Risk Finance, 10 (5), pp. 477-487.

- Jasim Al-Ajmi,Hameeda Abo Hussain and Nadhem Al-Saleh, (2009), Decisions on Capital Structure in a Zakat Environment With Prohibition of Riba, The Journal of Risk Finance, 10 (5), pp. 460-476.
- Joshua Abor, (2005), The Effect of Capital Structure on Profitability: An Empirical Analysis of Listed Firms in Ghana", The Journal of Risk Finance, 6, pp. 438-445.
- Kakani Ram Kumar, Saha Biswatosh, Reddy V.N, (2001), Determinants of Financial Performance of Indian Corporate Sector in the Post-Liberalization Era: An Exploratory Study', NSE Research Initiative, Paper No. 5, Mumbai: National Stock Exchange of India Limited.
- Manoj Anand, (2002), Corporate Finance Practices in India: A Survey" (2002), Vikalpa, 27 (4), pp 29-56.
- Mohammad Fawzi Shubita, Dr. Jaafer MaroofAlsawalhah (2012), The Relationship Between Capital Structure and Profitability, International Journal of Business and Social Science, 3(16), pp 104-112.
- Myers, S.C. & Majluf, N.S., (1984), Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have, Journal of Financial Economics, 13, pp. 187-221.
- Steer, Peter, and John Cable, (1979), Internal Organization and Profit: An Empirical Analysis of U.K. Large Companies, The Journal of Industrial Economics, 27, pp. 13-26.
- Sheel, A. (1994), Determinants of Capital Structure Choice and Empirics on Leverage Behaviour: A Comparative Analysis of Hotel and Manufacturing Firms, Journal of Hospitality and Tourism Research, 17 (3), pp. 1–16.
- Velnampy T., NireshAloy J. (2012), The Relationship between Capital Structure and Profitability, Global Journal of Management and Business Research. 12 (13), pp 67-73.

Bibliography

- Mehta, M.M., (1955), Structure of Indian Industries, Bombay: Popular Book Depot.
- Penrose, E.T., (1959), "The Theory of the Growth of the Firm" London: Blackwell.
- Pandey, I.M. (2006), 'Financial Management', Vikas Publishing House Pvt. Ltd, New Delhi



Study on Consumer Perception Towards Changing Trends in Retailing Geeta Nema*, Khyati Ojha**

Abstract

The Indian retail sector is going through a transformation and the emerging market is witnessing a significant change in its growth pattern. Both existing and new players are experimenting with new retail formats. These emerging retail formats provide wide variety to customers and offer an ideal shopping experience with an amalgamation of product, entertainment and service, all under a single roof. Changing tastes and preferences of consumers' are leading to radical transformation in lifestyles and spending patterns and this in turn is spurting in new business opportunities. Consumer dynamics in India is also changing and the retailers need to understand the changing dynamics and its impact on shopping behavior and formulate their strategies accordingly to deliver the expected value to the consumers.

Retailing is a very growing sector. Due to increased awareness and literacy level of customers the trends in retailing are changing. Now-a-days, customer is shifting from unorganized retail to organized retail due to large number of factors. The present study is expected to find out the factors for changing customer perception towards changes in retail trends.

Keywords: Customer Perception, Retailing, Changing Trends, Retail sector

Introduction

Consumers' perception covers all the important aspects of retailing. Consumer perception refers to the process by which a customer selects, organizes and interprets information/stimuli inputs to create a meaningful picture of the brand or product.

Customer perception refers to how customers view a certain product based on their own conclusions. These conclusions are derived from a number of factors, such as price and overall experience. When it comes to influencing consumers to purchase a product, their perception of the brand must be taken into account. This perception may vary based on the customer or a certain demographic of customer. Each individual interprets the meaning of stimulus in a manner consistent with his/her own unique biases, needs, and expectations.

Retail Sector

Retail is the sale of goods to end users, not for resale, but for use and consumption by the purchaser. The word retail is derived from the French word retailer, meaning to cut a piece off or to break bulk. It can also be defined as the timely delivery of goods and services demanded by consumers at prices that are competitive and affordable.

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Retailing is a convenient, convincing and comfortable method of selling goods and services. Thus retailing can be said to be the interface between the producer and the individual consumer buying for personal consumption. Retailing is the last link that connects the individual consumers with the manufacturing and distribution chain. A retailer is involved in the act of selling goods to the individual consumer at a margin of profit.

The Emerging Sectors in Retailing

Retailing, one of the largest sectors in the global economy, is going through a transition phase not only in India but the world over. For a long time, the corner grocery store was the only choice available to the consumer, especially in the urban areas. This is slowly giving way to international formats of retailing. The traditional food and grocery segment has seen the emergence of supermarkets/grocery chains (Food World, Nilgiris, Apna Bazaar), convenience stores and fast-food chains.

The retail sector includes all the shops that sell goods to the ultimate customer, who buys them for personal and not business use. It encompasses all kinds of shops, from kiosks and small groceries to supermarket chains and large department stores. In addition to traditional bricks-and-mortar shops, the retail sector includes mail-order and online businesses. Retail sector is further subdivided into two sectors that are-

Organised Retail Sector

The organised retailing refers to the trading activities undertaken by licensed retailers that are those who registered themselves for sales tax, income tax, etc. These include the corporate –backed hypermarkets and retail chains and also the privately owned large businesses. The various forms of organized retail are:

- a) **Hypermarkets :** They store products of multiple brands comprising food items and non-food items.
- b) **Supermarkets :** These are self service stores selling food and personal care products. e.g. Subhiksha.
- c) **Departmental Stores :** Retails branded goods in non-food categories. e.g. Shoppers stop.
- d) **Specialty Chains :** These focus on branded product or product category.e.g.Bata Convenience Stores.
- e) **Malls :** A huge enclosure which has different retail formats.e.g.Pantaloon Retail. Organised retail is based on the principle of unity.

Unorganized Retail Sector

Indian retail is dominated by a large number of small retailers consisting of the local kirana shops, owner-manned general stores, chemists, footwear shops, apparel shops, paan and beedi shops, hand-cart hawkers, pavement vendors, etc. which together make up the so-called "unorganized retail" or traditional retail. The present study focuses on understanding the consumer perception towards changing trends in retailing.

Review of Literature

In order to carry on the present work, the following studies were reviewed:

Manocha and Pandey (2012) in their study "Organized Retailing in India- Challenges and Oppurtunities" observed that modern retailing is not threat to independent mom and pop stores as most of the consumers said that they never stopped visiting Kirana store. Organized retailing is beneficial for India because it's not meant to create conflict with unorganized stores but reshaping unorganized stores into nascent organized stores. The author has also discussed the growth of modern retailing in India which is not at a very fast pace.

Vemaraju (2011) in a study "Changing waves in Indian retailing: impact of customers perception and CRM on Indian retailing in the changing business scenario" found key attributes that act as motivational factors to drive customers to the store. Findings suggest that: product attributes has more profound effect on customers than store attributes. Findings reveal that majority of the customers prefer to purchase from retail outlets on cash payment mode. This indicates that there are better opportunities for growth in Indian retail sector. This study concludes that originality of the product was given the highest preference and Indian customers are more price sensitive and quality conscious. Findings also indicate that customers are more inclined to the retail store that offer better customer services, promotional offers and discounts. Location and customer relationship management are other important factors identified by the customers because they want to reduce the time, energy and psychic costs involved in shopping from a retail store.

Pandey and Rai (2014) in their study "Consumer Behavior towards Retail Outlets in India" observed that the Indian organized sector is emerging; in this situation it is important for small retailers to keep the below mentioned point in their mind and draft a new strategy for their long time survival. 1. Level of prices, 2. Quality of fresh groceries & availability of exotic fruits and vegetables, 3. Display, cleanliness and hygiene, 4. Home delivery & credit facility, 5. Variety 6. Service 7. Ambience.

Gupta (2012) in a study "Changing Consumer Preferences From Unorganized Retailing Towards Organized Retailing: A Study in Jammu " observed that due to the changing demographics, increase in DINKS families, urbanization, and awareness due to electronic media especially internet the customers have multiple options to choose from modern retail outlets to neighborhood shops. Majority of the consumers are visiting organized formats for variety, easy availability, cleanliness with additional facility of entertainment for children, convenient parking facility and restaurant etc. In case of unorganized outlets immediacy of the store, credit and bargaining facility balance the tilt. Unlike higher age groups who prefer to visit Kirana stores, the younger generation has more inclination towards organized retail.

Atulkar and Kesari (2014) in their study "A Review of Customer Preference towards Organized Retail Stores" observed that due to the changing demographics, urbanization, and awareness due to electronic media especially internet, the customers have multiple options to choose from modern retail

outlets. Majority of the customers are visiting organized formats for variety, easy availability, cleanliness with additional facility of entertainment for children and convenient parking facility and restaurant etc. Today it has been found that all age group customers prefer to visit organized retail stores because of various customer facilities provided to them. Families with less annual income prefer shopping at nearby unorganized retail stores where customers with higher qualification were found to be more attracted towards organized retail outlets.

Joshi and Dhadhal (2014) in their study "An Empirical Study of Consumer Buying Preferences towards Organized Retailers in the City of Rajkot" observed the consumers' buying preferences towards the organized retailers of Rajkot city. Shopping environment is changing in the city. Researchers observed a shift from unorganized shopping to organized shopping. Organized retailers are successful in providing good quality products at affordable price. Organized retailers focus mainly on to provide grocery items at its best. That is the reason why most of the consumers prefer to buy grocery from organized retailers. Organized retailers are preferred by consumers mainly because of the fact that they provide a better product mix at affordable prices.

Ali (2013) in his study "The effect of retailer's reputation on consumer perception towards product quality" found that size of the outlet, decorum of the outlet, product display and brand availability have an impact on the consumers' perception about product quality. Other predictors considered in the research have been turned out to be insignificant in influencing the consumers' perception. The consumer perception about retailer reputation that first impression on customers can last longer only if it is built and maintained; and it can be a source of generating repeat purchase or even post – purchase dissonance, determined by how far the service provider appeals to the satisfaction related feelings of the customers and their decisions.

Objectives

- To Study the awareness about retail sector among sample respondents.
- To find out factor contributing towards changing customer perceptions towards trends in retailing.
- To study the effect of demographic variables like- gender, age, income and qualification on changing customer perception.

Research Methodology

Research Design

The study is both exploratory and descriptive, because in the study both primary and secondary data are used. A structured questionnaire as well as five point likert scale has been used to study customer perception towards changing trends in retailing. Primary data has been collected from respondents of Indore city through a questionnaire designed for a sample of 101 respondents by using direct paper form.

Sample

The study was done with reference to Indore city. The study include respondents of age group between 20-60 years & sample size of 101 respondents was taken. These 101 people were given a structured questionnaire. Out of 101 respondents, all responses received were valid hence they are considered for further data processing Theoretical, non-probability approach of sampling was adopted for sampling 101 respondents representing the genders, different age groups, income, education and marital status. Convenience sampling technique was used for selecting the subject. The data collected was coded, tabulated and analyzed into logical statements using Reliability analysis, Frequency distribution, Factor analysis and Chi-square test.

Data Analysis Techniques

Statistical tests like- Reliability Analysis, Validity Test, Frequency Distribution, Chi-square test and Factor Analysis was applied to analyze the data.

Data Analysis and Interpretation

Reliability Test

Table 1 Reliability Statistics

| Cronbach's Alpha | NofItems |
|------------------|----------|
| .695 | 36 |

The value of Cronbach's Alpha is 0.695, which is greater than 0.6 which means that the data shows high internal consistency i.e. high reliability and it is substantial to undergo further data analysis with the data.

Section A and Section B of questionnaire were analyzed using frequency distribution pie charts under which demographics and awareness towards retailing is analyzed.

Frequency Distribution

Frequency Chart: Gender

.Figure 1: Gender



74

According to the chart, 42.6% of respondents are males and 57.4% of respondents are female out of total 101 respondents. Although the contribution of females is slightly greater but males have also contributed well in the sample.

Frequency Chart: Age

Figure 2.: Age



According to the chart, 75.2% of the respondents are young, 17.8% of the respondents are middle aged and 6.9% of the respondents are senior citizens. The maximum population belong to the young population with age between 20-35 years which shows the perception of young generation towards changing trends in retailing is changing the most.

Frequency Chart: Qualification Figure 3 : Qualification



According to the qualification chart, 85.9% of the respondents are undergraduates whereas 14.9% of respondents are postgraduates.

Frequency Chart : Annual Income

Figure 4 : Annual Income



According to the Annual income chart, 40.6% of respondents have annual income upto 2 lacs, 37.6% of respondents have annual income between 2-4 lacs and 21.8% of respondents have annual income above 4 lac.

Frequency Chart: Marital Status





According to the marital Status chart, 23.8% of respondents are married and 76.2% of respondents are unmarried. The major contribution in survey is made by unmarried respondents.

Frequency Chart: Retailing Awareness

Figure 6: Retailing Awareness



According to retailing awareness chart, 98% of respondents are aware about concept of retailing and only 2% of respondents are not aware about concept of retailing.

Frequency Chart: Duration





According to duration chart, 12.9% of respondents are doing their shopping from retail outlets for more than 1 year, 9.9% of respondents are doing their shopping from retail outlets for more than 2 years and 77.2% of respondents are doing their shopping from retail outlets for about more than 3 years.



According to Familiarity chart, 70.3% of respondents are familiar with the latest changes in retailing whereas 29.7% of respondents are unfamiliar with changes happening in retailing.

Frequency Chart: Online Shopping

Figure 9: Online Shopping



According to online shopping chart, 80.2% of respondents prefer to buy products through online shopping whereas 19.8% of respondents do not prefer to buy products through online shopping.

Frequency Chart: Affect Buying Pattern

Figure 10: Affect Buying Pattern



According to affect buying pattern chart, buying pattern of 74.3% of respondents gets affected because of recent retail changes whereas buying pattern of 25.7% of respondents gets unaffected because of recent retail changes.

Section C of the questionnaire has been analyzed using factor analysis which is represented as follows:



Factor Analysis-

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .658 |
|--|--------------------|---------|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 896.062 |
| | Df | 325 |
| | Sig. | .000 |

Table 2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy

This measure varies between 0 and 1, and the values closer to 1 are better. A value of .6 is a suggested minimum.

Bartlett's Test of Sphericity

This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is one in which all the diagonal elements are 1 and all off diagonal elements are 0.

The value of KMO Measure of sampling Adequacy is 0.658 and the Significance value of Bartlett's Test of Sphericity is 0.000. These values ensure that we can apply factor analysis on the data.

| | Initial | Extraction |
|------------------------|---------|------------|
| Convenience | 1.000 | .508 |
| Technology | 1.000 | .643 |
| Time saving | 1.000 | .567 |
| Customer literacy rate | 1.000 | .694 |
| Credit facility | 1.000 | .627 |
| Ease of access | 1.000 | .658 |
| Customized products | 1.000 | .661 |
| Special discounts | 1.000 | .661 |
| Huge variety | 1.000 | .672 |
| Clean and hygienic | 1.000 | .693 |
| Attractive offers | 1.000 | .723 |
| Branded goods | 1.000 | .661 |
| Entertainment | 1.000 | .741 |
| Home delivery | 1.000 | .722 |
| Location | 1.000 | .649 |
| | | |

Table 3 Communalities



Initial Communalities are estimates of the variance in each variable accounted for all by all components or factors. Extraction Communalities are estimates of the variance in each variable accounted for by the factors or components in the factor solution. All the variables have positive value which is evidence that all the variables have impact and contribute into the research and affect the data analysis.

| S.NO. | Factors | Total | % of Variance | Cumulative % |
|-------|------------------|-------|---------------|--------------|
| 1 | Customer delight | 4.017 | 15.451 | 15.451 |
| 2 | Mechanics | 2.292 | 8.816 | 24.266 |
| 3 | Attractiveness | 2.172 | 8.354 | 32.621 |
| 4 | Expediency | 1.925 | 7.405 | 40.026 |
| 5 | Competence | 1.681 | 6.466 | 46.492 |
| 6 | Display | 1.660 | 6.386 | 52.878 |
| 7 | Amusement | 1.424 | 5.477 | 58.354 |
| 8 | Edification | 1.335 | 5.133 | 63.488 |
| 9 | Affable | 1.329 | 5.110 | 68.598 |

Table 4 Total Variance Explained

From the above table- total variance explained, variance of each factor is clear and also the total factor loading of each factor can be seen.

The factor wise grouping of the variables is as follows:

| S.No. | Variable | Factor Loading |
|-------|--------------------|----------------|
| 1. | Quality Products | .718 |
| 2. | Freedom to decide | .683 |
| 3. | Convenient parking | .592 |
| 4. | Food courts | .544 |
| 5. | Easiness | .783 |
| 6. | Value for money | .785 |
| 7. | Shopping time | .694 |
| 8. | Satisfaction | .712 |

Table 5 Factor 1: Customer Delight

The first factor is named as Customer delight, it has 8 variables named as quality products, Freedom to Decide, Convenient Parking, Food Courts, Easiness, value for money, shopping Time, Satisfaction. The variables of Customer Delight group are related to high level of customer satisfaction and providing them with value added benefits, which directly affect the customer perception towards changing trends in retailing.

Table 6 Factor : 2: Customization

| S.No. | Variable | Factor Loading |
|-------|---------------------|-----------------------|
| 1. | Technology | .741 |
| 2. | Customized Products | .787 |

The second factor is named as customization : It has 2 variables named as Technology and Customized products. The variables of customization group are related to technicalities present within online retail sector, which directly affect the customer perception towards changing trends in retailing.

| S.No. | Variable | Factor Loading |
|-------|--------------------|-----------------------|
| 1. | Special Discounts | .716 |
| 2. | Clean and Hygienic | .440 |
| 3. | Attractive Offers | .758 |
| 4. | Branded Goods | .591 |

The third factor is named as attractiveness, which include 4 variables within it named as special discounts, Clean and hygienic atmosphere, attractive offers, branded goods. The variables of attractiveness group are related to grab focus of customers towards the market, which affect the customer perception towards changing trends in retailing.

| S.N | o. Variable | Factor Loading |
|-----|----------------|-----------------------|
| 1. | Convenience | .306 |
| 2. | Time Saving | .361 |
| 3. | Ease of Access | .774 |
| 4. | Huge Variety | .460 |
| 5. | Location | .683 |

Table 8 Factor: 4: Expediency

The fourth factor is named as expediency, which includes variables named as convenience, time saving, ease of access, huge variety, location. The variables of expediency group are related to kind of suitability that customer is getting these days with the trends that are changing in retail market and which directly affect the customer perception towards changing trends in retailing.

| S.No. | Variable | Factor Loading |
|-------|-----------------|----------------|
| 1. | Credit Facility | .723 |
| 2. | Home Delivery | .552 |

Table 9 Factor: 5: Competence

The fifth factor is named as competence, which includes variables named as credit facility and home delivery. The variables of competence group increases capability of a particular retail market to compete in an environment which is very competitive. Also these variables directly affect the customer perception towards changing trends in retailing.

| Table | 10 | Factor 6 | Disnlay |
|-------|----|-----------|---------|
| Lanc | 10 | racior.u. | Display |

| S.No. | Variable | Factor Loading |
|-------|-------------------|-----------------------|
| 1. | One roof facility | .785 |
| 2. | Good ambience | .755 |

The sixth factor is named as display, it includes variables named as one roof facility and good ambience. The variables of display group are related to basically layout, store design and interior present within a retail store which directly affect the customer perception towards changing trends in retailing.

Table 11 Factor: 7: Amusement

| S.No. | Variable | Factor Loading |
|-------|---------------|-----------------------|
| 1. | Entertainment | .840 |

The seventh factor is named as amusement, which include only one variable within it named as Entertainment. The variable of Amusement group is related to relaxation and to the happy leisure time that customers use to spend at retail outlets and within malls these days which directly affect their



perception towards changing trends in retailing.

 Table 12 Factor:8: Edification

| S.No. | Variable | Factor Loading |
|-------|------------------------|-----------------------|
| 1. | Customer literacy rate | .765 |

The eighth factor is named as edification, which include variable customer literacy rate. The variable of edification group is related to changing culture as well as enhancement in education level of customers which directly affects their perception towards changing trends in retailing.

Table 13 Factor:9: Affable

| S.No. | Variable | Factor Loading |
|-------|----------------|-----------------------|
| 1. | Friendly Staff | .716 |

The ninth factor is named as affable, which also include only one variable that is friendly staff. The variable of affable group is related to genial, responsive and polite nature and behavior of staff people which affect their perception towards changing trends in retailing.

Section A of the questionnaire was analyzed using Chi-Square test on demographic information of the sample population.

Table 14 Test Statistics

| | Gender | Age | Qualification | Annual Income | Marital Status | | |
|-------------|--------|---------|---------------|---------------|----------------|--|--|
| Chi-Square | 2.228a | 81.644b | 49.911a | 6.198b | 27.812a | | |
| Df | 1 | 2 | 1 | 2 | 1 | | |
| Asymp. Sig. | .136 | .000 | .000 | .045 | .000 | | |

Chi-Square Test

Hypotheses:

H₀₁: Gender does not affect significantly in building and changing customer perception towards changing trends in retailing.

 H_{02} : Age does not affect significantly in building and changing customer perception towards changing trends in retailing.

 H_{03} : Qualification does not affect significantly in building and changing customer perception towards changing trends in retailing.

 H_{04} : Annual Income does not affect significantly in building and changing customer perception towards changing trends in retailing.

 H_{05} : Marital Status does not affect significantly in building and changing customer perception towards changing trends in retailing.

Interpretation of demographics based on Chi Square Test result:

 H_{01} : The Chi Square value of Gender variable is 2.228 at df value 1 and has asymptotic significance value equal to 0.136. As this value is more than 0.05, hence the null hypothesis H_{01} namely " H_{02} : Gender does not affect significantly in building and changing customer perception towards changing trends in retailing" is not rejected.

Thus it can be concluded that the customer perception towards changing trends in retailing is not affected by gender difference i.e. perception of male and female is similar towards changing trends in retailing.

 H_{02} : The Chi Square value of Age variable is 81.644 at df value 2 and has asymptotic significance value equal to 0.000. As this value is less than 0.05, hence the null hypothesis H_{02} namely " H_{02} : Age does not affect significantly in building and changing customer perception towards changing trends in retailing" is rejected.

Thus it can be interpreted from the above finding that age difference affects perception of customers towards changing trends in retailing. Young, middle aged and senior citizens have different perceptions towards changing trends in retailing.

 H_{03} : The Chi Square value of Qualification variable is 49.911 at df value 1 and has asymptotic significance value equal to 0.000. As this value is less than 0.05 hence the null hypothesis H_{03} namely " H_{03} : Qualification does not affect significantly in building and changing customer perception towards changing trends in retailing" is rejected.

Thus it can be interpreted that qualification level affects in building and changing perception of customers towards changing trends in retailing. Undergraduates and postgraduates have different perceptions towards changing trends in retailing.

 H_{04} : The Chi Square value of Annual income variable is 6.198 at df value 2 and has asymptotic significance value equal to 0.045. As this value is less than 0.05, hence the null hypothesis H_{04} namely " H_{04} : Annual Income does not affect significantly in building and changing customer perception towards changing trends in retailing" is rejected.

Thus it can be interpreted that annual income affect perception of customers towards changing trends in retailing i.e. annual income of individuals plays a role in building and changing customer perception.

 H_{05} : The Chi Square value of marital status variable is 27.812 at df value 1 and has asymptotic significance value equal to 0.000. As this value is less than 0.05, hence the null hypothesis H_{05} namely " H_{05} : Marital status does not affect significantly in building and changing customer perception towards changing trends in retailing" is rejected.

Thus it can be interpreted from above findings that marital status of individuals affect their perception towards changing trends in retailing i.e. married and unmarried people have different perceptions.

Conclusion

Indian retail industry is witnessing a paradigm shift as the sector is getting organized and consumers are seeking a one-stop shopping place with convenience and entertainment. Professionally managed and separately owned retail organizations are the face of today's retail sector. India is stepping into a new era of 'Retail Chains' from the traditional neighborhood 'Kirana Store'. Economic growth, changing lifestyles, urbanization, women's participation in economic activities and the spread of IT are the some of the key factors for the growth of the retail sector. With Liberalization, privatization, globalization and modernization, a modern competitive business is based on understanding the mind of the consumer and providing the kind of products and services he wants. He has multiple choices from unorganized retail to modern shopping experience. This is said that "the customer is the king", but he is not king, he is God, because king can die but customer never dies in a business. This is important to know why customer prefers to buy. How does a customer buy it? When does a customer buy it? If retailer is able to match the customer expectations then he can improve his business.

This present study was conducted with a purpose of understanding the customer perception towards changing trends in retailing. It was observed that due to the changing demographics, urbanization, and awareness due to electronic media especially internet the customers' perception is changing. Majority of the consumers are visiting organized formats for variety, easy availability, and cleanliness with additional facility of entertainment for children and convenient, parking facility and food courts etc.

The first objective was "To study Awareness about retail sector among sample respondents". Out of 100 respondents most of the respondents (98%) are aware about concept of retailing. The respondents know and are aware about retail sector and its changing environment, moving from unorganized to organize. It is found that people feel more comfortable in organized retail shops. Almost all the variables covered, it is observed that most of the people are at ease while purchasing from organized sector.

The second objective was "To find out factor contributing towards changing customer perception towards trends in retailing." For the research purpose 24 variables are taken in account and the responses are taken on 5 point Likert scale. Factor analysis is applied to the responses collected and is clubbed together to 9 major factors out of which customer delight factor contributes the most. Variables which are included within customer delight are: Quality products, freedom to decide, convenient parking, food courts, and easiness, value for money, shopping and satisfaction.

The third objective was "To study the effect of demographic variables- gender, age, income and qualification." For this purpose data are collected regarding demographic information of respondents and Chi-Square test static is applied. It is found that except gender all other variables namely- age, annual income, qualification and marital status of respondents affect the customer perception.

From the study it is clear that the movement of customer from unorganized to organized retail market depends on their literacy about information technology, standard of living, and increase in leisure time, buying power all.

From the first factor customer delight it is clear that the customers have great affinity towards delightful facilities provided by retail outlets these days which make his perception change. The value added happiness pleasure and comfort that he gets over there helps in building his insight. Also customization in product, faster outcome using technology is a recent trend. The attractiveness in financial discounts and offers with a satisfaction of brand and the pleasant appearance of emerging retail markets attracts the customers. Expediency is one of the important aspects due to suitability to customers and saving of time. Buy today and pay later is one of the factors that make emerging trends in retailing more competent. Well arranged products on shelves create a feel-good image in the minds of customers causing their perception to change. Involvement of entertainment factors along with shopping creates an environment for rejuvenation and also availability of food courts makes shopping a happy family outing concept which drives customer perception. Customer is highly educated these days; he knows what he wants and also where to go to get the need or demand fulfilled. This factor is causing and is building his perception towards changing trends in retailing. As a customer we all need a responsive assistance of sales staff, hence there is a direct relation between responsive staff and footfalls within the store.

The retailers today should pay more and more attention towards all these factors to get maximum of market share. The retailer should understand what sort of merchandise mix he should adopt, what should be the marketing and the promotion mix, what kind of display counter merchandising and store layout should be planned and where it is located keeping in mind the customer preferences. Retailers also taken care of the major factors that were identify and the paradigm shift towards organized retail outlets to face the competition better form the local kirana stores etc.

Therefore, it is concluded that if the retailer keeps these things in mind then he can take benefits of this paradigm shifting from unorganized retail outlets to organized retail outlets.

Also it can be concluded over here from the study that gender difference does not cause perceptions to change or differ to a big extent. Young generation is highly inclined towards new trends in retailing. Obviously people with higher income group form a positive approach towards emerging retail market and same is the situation with the study. The growth of retail sector will have a positive multiplier effect on the Indian economy.Organized retail would benefit society at large, more so the end consumers -- in terms of better product choices and price – and farmers because of higher and more stable price realization for their produce. More employment opportunities will be generated. Present systems, IT and processes will improve because of investments in infrastructure that are likely to be made by organized retailers. The robust sourcing and distribution network of large retailers would certainly help make the supply chain more efficient.

References

- Ali Turab Mufazzal (2013) "The effect of retailer's reputation on consumer perception towards product quality" Herold Journal of Marketing and Business Management, Vol.2(3), pp-089-096, September 2013, ISSN: 2350-2207.
- Atulkar Sunil, Kesari Bikrant (2014) "A Review of Customer Preference towards Organized Retail Stores" IRC's International Journal of Multidisciplinary Research in Social and management Sciences, Vol.2, Issue3, July-Sept. 2014, ISSN 2320-8236.
- Gupta Urvashi (2012) "Changing Consumer Preferences From Unorganized Retailing Towards Organized Retailing: A Study in Jammu" Journal of Emerging Knowledge on Emerging Markets, Volume 4 November 2012.
- Joshi Manthan, Dhadhal H. Chitralekha (2014) "An Empirical Study Of Consumer Buying Preferences Towards Organized Retailers In The City Of Rajkot" Journal of Commerce and Management, Knowledge Consortium of Gujarat, Vol.2, Issue-3, March-2014.
- Manocha Sanjay and Pandey Anoop (2012) "Organised Retailing in India- Challenges and Opportunities" VSRD, International Journal of Business and Management Research, Volume 2(3), 2012, pp 65-80.
- P.Vikkram, N. Sumanthi (2011) "A study on customer perception towards retail chains at Trichy" Journal of Business Management Studies, Vol.7 No.2, July-December-2011.
- Pandey Shailesh, Rai Chand Vipin (2014) "Consumer Behavior towards Retail Outlets in India" International Journal of Engineering and Management Research, Volume-4, Issue-2, April-2014, ISSN No.: 2250-0758.
- Vemaraju Sudha (2011) "Changing waves in Indian retailing: impact of customers perception and CRM on Indian retailing in the changing business scenario" International Journal of Multidisciplinary Research Vol.1 Issue 8, December 2011.



Sapna Parihar*

Abstract

Mortality Rate is the health index of any country. Child Mortality Rate is even more crucial issue as it affects the next generation. The world has targeted Million Development Goals 4, 5 and 6. This aimed to reduce child and mother mortality rate. The study analyzes the child mortality rate in Asian, African American and European region across all mortality level i.e. IMR, NMR and UMR. The Study also compares the male and female child mortality rate in year 2016. The Data is collected from World Data Bank and UNICEF. Analysis of Variance and Independent Sample T test used to analyze the data. Result shows that mortality rates are same at all level i.e. IMR, NMR and UMRbut notable difference exists between male and female child mortality rate.

Conceptual Framework

The world has targeted Million Development Goals 4, 5 and 6. The Goal 4 is to reduce the underfive/Infant mortality rate and proportion of 1 year-old children immunized against measles. The Goal 5 is to improve the maternal health by reducing maternal mortality rate, Antenatal care coverage, increasing proportion of births attended by skilled health personnel and goal 6 to struggle against HIV/AIDS, malaria, and other diseases. The mortality has been decreased to some extent. The child mortality can be divided into three categories i.e. Infant Mortality Rate (IMR), Neonatal Mortality Rate (NMR) and Under Five Mortality Rate (UMR). Infant mortality rate can be defined as Infant mortality is defined as the death of an infant prior to its first birthday. This definition clearly excludes death in utero, or stillborn infants. Although there has been a gradual reduction in the worldwide rate of infant mortality over the last 20 years due to health concern by people. The NMR is defined as death of a born baby before first 28 days of Life. The good news is that neonatal mortality is declining globally. The worldwide neonatal mortality rate fell by 47 per cent between 1990 and 2015 from 36 to 19 deaths per 1,000 live births. Over the same period, the number of newborn babies who died within the first 28 days of life declined from 5.1 million to 2.7 million reported by UNICEF. The under-five mortality rate refers as death rate of children aged below 5 years. The present study tries to find the status of child mortality rate in Asia, Africa, Europe, and America and latest developed countries.



Source: United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), as published in UNICEF: Committing to Child Survival: A promise renewed-Progress report 2015, UNICEF, New York 2015.

Review of Literature

As to achieve the millennium Development Goal (MDG) considerable researches are being conducted to find the reasons, possible remedies, facilities to provide to child as well as the mother to improve the survival rate. (Sahu et.al, 2014) studied the mortality rate using Hazard model among scheduled tribe in rural area in India and observed the significant change in infant and child mortality over the time period from 1992-2006. The study also observed that the age of mother also has an impact of the survival of infant child. The probability of survival is high if the mother aged over 30. The risk of infant dying was higher among male children than among female children.

O'hare, et.al (2013) revealed that there is an inverse and significant relationship between income and child mortality. The pooled elasticity for those estimates, which are unadjusted for downstream covariates, or mediators, is -0.95 for infant mortality. If the IMR is 50/1000 and the GDP increases by 10%, we can expect the IMR to decrease to 45/1000.

Bennett, (1998) investigated factors associated with child mortality in an area in Rawalpindi, one of the large cities of Pakistan. Controlling for the socio-economic status as a determinant of child mortality. Results of the proportional hazards model analysis on 1301 index children suggest that non-economic factors like maternal health-seeking behavior were related to high child mortality to lower income stratum. Study also revealed that the cultural norm of bearing a large number of children was the most significant correlate. In one of the other study conducted in Pakistan by (Rabbani and Qayyum, 2013) put particular emphasis on the effect of wealth, mother' education, exposure to media and ethnicity. Effect of mothers' education, wealth, and exposure to media found significant determinants of child mortality in Pakistan. Knowledge on condition of a subject at national and local level gives a prerequisite for shaping efficient polices addressing the Problem.

Dholakiya and Jani (2015) revealed that economic and political globalization has positive impact

on the child health status measured by child mortality rates and malnutrition. International trade across all countries has no impact on child health but when different groups of countries classified by their initial levels of income and development are considered, trade shows significant impact on the child health.

MacDorman et.al (2014) compared the infant mortality rate of US with European countries and measures the impact on infant mortality differences of two major factors: the percentage of preterm and gestational age-specific infant mortality rates. This study found that 39% of the US higher infant mortality rate, when compared with that of Sweden that due higher US percentage of preterm birth.Stiglitz (2002) revealed that globalization and international trade do have an impact on the child health status of Asian countries though it is not uniform across different categories of countries, because there are inherent differences in their ability to garner benefits of globalization.

Kim et.al. (2016) revealed and observed remarkably low, current NMR and IMR in Korea compared to the U.S. and many other countries is certainly not due to its superior infant care but rather due to its favorably low proportion of preterm or low birth weight births. With further improvement in infant medical care in Korea as in Japan, its IMR would rank at near to the top among industrialized countries, surely better than Japan, since the BWD in Korea is more favorable than in Japan.

According to Demombynes and Karina Trommlerova, also of the World Bank, 16 of the 20 African countries which have had detailed surveys of living conditions since 2005 reported falls in their child-mortality rates (this rate is the number of deaths of children under five per 1,000 live births). Twelve had falls of over 4.4% a year, which is the rate of decline that is needed to meet the millennium development goal (MDG) of cutting by two-thirds the child-mortality rate between 1990 and 2015. Three countries—Senegal, Rwanda and Kenya—have seen falls of more than 8% a year, almost twice the MDG rate and enough to halve child mortality in about a decade. These three now have the same level of child mortality as India, one of the most successful economies in the world during the past decade. The decline in African child mortality is speeding up. In most countries it now was falling about twice as fast as during the early 2000s and 1990s. More striking, the average fall is faster than it was in China in the early 1980s, when child mortality was declining around 3% a year, admittedly from a lower base.

Objectives

- To compare the child mortality rate under five mortality rate, Neonatal Mortality Rate and Infant Mortality Rate in African, Asian, European and American region.
- To compare the Gender wise mortality rate in African, Asian, European and American region.

Research Methodology

Study was conducted in several stages. In the first stage related literature review was done to understand the problem, concept and past studies. Various articles, books and journals were referred. The study is exploratory in nature. In order to compare the NMR, IMR and UMR in various region od

world the secondary data is collected from World Data Bank and UNICEF for the year 2015-16. The Independent sample t test and Analysis of Variance are used to compare through SPSS 17.0 version.

Hypotheses

 H_{01} There is no significance difference among Under 5, Neonatal and infant mortality rate in the world.

 $H_{\scriptscriptstyle 02}$ There is no significance difference between male and female mortality rate in the world.

Result Analysis

| | Under-5 mortality rate (U5MR) | U5M | IR by sex 2015 |
|------------------------------|----------------------------------|------|-------------------|
| Countries and areas | 2015 | male | female |
| Sub-Saharan Africa | 83 | 89 | 77 |
| Eastern and Southern Africa | 67 | 72 | 62 |
| West and Central Africa | 99 | 105 | 92 |
| Middle East and North Africa | 29 | 31 | 27 |
| South Asia | 53 | 52 | 53 |
| East Asia and Pacific | 18 | 19 | 16 |
| Latin America and Caribbean | 18 | 20 | 16 |
| CEE/CIS | 17 | 19 | 15 |
| Least developed countries | 73 | 78 | 68 |

Table 1 Mortality Rate in various Regions



| | Gender | Ν | | Mear | 1 | SD | | |
|-----------|----------------|------------|------|-------------|---------|-----------------|----------|----------|
| U5M | Male | 9 | | 53.888 | 39 | 33.2883029 | | |
| | Female | 9 | | 47.333 | 33 | 29.5211788 | | |
| Tabl | le 3 Independe | nt test to | comj | pare MR be | tween] | Male and Fema | le Child | |
| | Levene | 's Test | | t-test for | | | | |
| | for Equ | uality | | Equality of | | | | |
| | of Vari | ances | | Means | | | | |
| | | \$ | Sig. | t | df | Sig. (2-tailed) | Mean Di | ifferenc |
| Equal var | riances | | | 0.44 | 15.77 | 0.66 | 6.55 | 5556 |
| not assum | ned | | | | | | | |

Table 2 Descriptive Statistics of U5M

Table shows male and female child mortality rate do not differ significantly as p>0.5. Therefore the H_{01} is accepted.

| Table 4 Descriptive Statist | ics |
|-----------------------------|-----|
|-----------------------------|-----|

| U5M | | | | | | | | |
|-------|----|------|-------|------|---|-------------|-----|----|
| | Ν | Mean | SD | SE | 95% Confidence Interval for Mean | Min | Max | |
| | | | | | Lower Bound | Upper Bound | | |
| UMR | 10 | 50 | 29.70 | 9.39 | 28.74 | 71.25304 | 17 | 99 |
| IMR | 10 | 36.1 | 18.47 | 5.93 | 22.67 | 49.52319 | 15 | 66 |
| NMR | 10 | 20.4 | 9.34 | 2.95 | 13.71 | 27.08688 | 9 | 32 |
| Total | 30 | 35.5 | 23.69 | 4.32 | 26.65 | 44.34877 | 9 | 99 |

Table 5 ANOVA Comparing UMR, IMR and NMR

| U5M | | | | | |
|----------------|----------------|----|--------------------|----------|--------|
| | Sum of Squares | df | Mean Square | F | Sig |
| Between Groups | 4386.2 | 2 | 2193.1 | 4.976234 | 0.014* |
| Within Groups | 11899.3 | 27 | 440.7148 | | |
| Total | 16285.5 | 29 | | | |

Table shows there is significant difference between UMR, IMR and NMR, Therefore H_{02} is rejected. The descriptive statistics also revealing that the average mortality rate is highest in UMR followed by IMR and NMR.

Conclusion

The study concludes that the child mortality rate is high in West and Central Africa, Sub-Saharan Africa, Eastern and Southern Africa, South Asia and Middle East and North Africa while Latin America, East Asia and Europe have lower rate of child mortality. This can also be related with the development of the countries and the poverty. Europe and America are developed and economically strong region whilst African and South Asian region are either developing or facing strong financial crisis. The higher mortality rate in these region shows that proper medical facility and necessary immunization may not be reaching to the child. The analysis depicts that child mortality rate is not same in all the stages of child life. The Under 5 mortality rate is significantly higher as compare to other stage. It means at the time of birth the child is healthy enough but due to improper immunization facilities which are required from the day one to five years of life may not be reaching. Parent's education and exposure to media is also one of the reasons behind that. Most of the children do not get nutritious food in their early stage of life which causes the higher rate of mortality. Study also analyzes that male and female child mortality rate are same. Hence there is no gender wise discrimination.

Suggestions

- A vital role needs to play by government of the countries to change the current scenario.
- Government should increase Health expanses and should be doubly sure about the disbursement of the same. This will enhance the health facilities at the time of birth and even after the birth and the immunization.
- Higher GNI leads to reduce the malnutrition rate and increase the life expectancy.
- More exposure of media, internet, and news to the rural area is required. Higher education also required for reducing and changing the orthodox mentality.
- Inadequate medical facility, mother's education, lesser exposure to media/internet is also the significant contributors.

Reference

- Kim et.al (2016)"Neonatal and Infant Mortality in Korea, Japan, and the U.S.: Effect of Birth Weight Distribution and Birth Weight-Specific Mortality Rates"J Korean Med Sci. 2016 Sep; 31(9): 1450–1454.
- MacDorman et.al, (2014) International Comparisons of Infant Mortality and Related Factors: United States and Europe, 2010: National Vital Statistics Reports, 63(5), Sep2014
- O, hare (2013) "Income and child mortality in developing countries: a systematic review and meta-analysis" Journal of Royal Society of Madicin, Vol 106(10), 408-414.
- Sahu, D., Nair, S., Singh. L, B.K. Gulati B.K. & Pandey A. (2015)"Levels, Trends & Predictors of Infant & Child Mortality Among Scheduled Tribes in Rural India" Indian J Med Res 141, May 2015, 709-719.

Webliography

- www.sdpi.org/publications
- www.economist.com
- databank.worldbank.org