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RVIM Journal of Management Research

Vol. 13 | Issue 2 | July - December 2021 | ISSN: 0974-6722

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Bengaluru

(Approved by AICTE New Delhi, Autonomous Institute,
Permanently Affiliated to Bengaluru City University,
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RVIM Journal of Management Research

(A Peer-reviewed Research Journal)

ISSN (print): 0974-6722

Website: <http://www.rvim.edu.in/journal/>

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RVIM Journal of Management Research

Aims and Scope

RVIM Journal of Management Research (RVIM JMR) is a peer-reviewed journal published by the R. V. Institute of Management (RVIM), Bengaluru, India, since 2009. It is biennial with editions published in January and July every year. RVIM Journal of Management Research is a peer-reviewed journal that uses a double-blind review process for evaluation and selection of all submitted materials.

The Aims of RVIMJMR are to:

- ◊ Seek and disseminate original theoretical and applied research in the field of management and allied areas.
- ◊ Provide a platform for publishing quality research work and case studies undertaken by academicians, industry practitioners and research scholars.
- ◊ Bridge the gap between academia and practice by promoting the publication of original, novel and industry-relevant research.

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RVIM Journal of Management Research welcomes submissions in different areas of the management discipline as indicated below:

- ◊ Banking, Financial Services and Insurance (BFSI)
- ◊ Business Ethics
- ◊ Business Intelligence (BI)
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- ◊ Business Process Re-engineering (BPR)
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- ◊ Technology Management
- ◊ Total Quality Management (TQM)
- ◊ Tourism and Hospitality Management
- ◊ Contemporary development happening in the discipline of management

It is our pleasure to present you the second issue of Volume 13 of RVIM Journal of Management Research. During this COVID-19 pandemic too the journal has continued to carry forth the research work of eminent academicians and practitioners in management since then.

In this issue of RVIM JMR, eight research papers and two book reviews have been presented for further dissemination across academia and industry as summarized here-in-under:

Newcomers to the stock market have begun trading without enough understanding of derivatives trading, because of which, they started losing money in the stock market as there is no fool-proof method for trading the Bank Nifty. Because of the stock market's V-shaped rebound in 2019, more investors poured their investors into the market in 2020. The first paper deals with the detailed research on this area and has made an attempt to develop a trading strategy for Bank Nifty as a special case, which can be easily applied by the investors and is result-oriented.

The Companies Act, 2013 made it obligatory for companies' to spend at least 2% of average net profits of three immediately preceding financial years on specified areas of social causes for the betterment of stakeholders and society in general. The second paper examines the impact of CSR spending on financial parameters for six sectors, viz. Oil and Gas, Chemicals, Metals and Mining, Consumer durables, Pharmaceutical and Construction/Cement sector comprising of 30 companies' for six years 2014 - 2020. The results indicate that corporate social responsibility has a positive impact on financial performance of firms.

During the COVID - 19, there are certain changes in the consumer behaviour and these changes were noticed in shopping pattern in retail sector when we compare with the pre pandemic scenario. It has brought some changes in the way of achieving customer satisfaction especially in the shopping malls. Understanding these changes occurred in achieving Customer satisfaction in Pre pandemic and during pandemic scenario is important for the sustainability and to adapt accordingly. The third paper deals with the study conducted at malls in Bangalore and found that there is a significant effect of COVID - 19 on the activities of shopping malls in Bangalore city.

The Indian textile industry is an industry which enlarged its scope and it remains next only to agribusiness by giving employment to around 15 million people across the nation more so in rural areas. The Fourth paper investigates the relationship among components which impact consumer's buying behaviour for garments in Ramdurg Rural area and found that there is a significant relationship between quality of life and its impact on rural educated youth's choice of clothing buying behavior.

The fifth paper presents the results of the measurements of customer satisfaction towards order processing food delivery Apps in smart mobiles. Food delivery apps are a new business unit in the e-commerce division. It can bridges the gaps between customer needs and food restaurants. Customer will search restaurant and they use order processing food delivery Apps in smart mobiles to place an order. As per the results of the study Swiggy is considered as the best App by the customers.

Reward System is characterized by various factors and there exists relationship between these factors and the performance of the employees. The purpose of the sixth paper is to assess the impact of reward systems on employee performance. The study found that Employee performance is positively influenced by employees' awareness of the reward system and perceptions towards long-term rewards. Demographic variables have little effect on employee perceptions of the reward system.

The deadly COVID-19 pandemic has been a major game changer for all educational institutions and MBA institutes are not an exception. Several MBA institutes have in fact very gracefully adapted to the changes and converted multiple challenges into meaningful opportunities that have resulted in total transition of the management education process fuelled by online teaching. The seventh paper's findings can be used by researchers intending to do empirical study on the impact of COVID-19 pandemic on online teaching and contribute further to this area of research.

A woman in India plays a vital role in both family and workplace. Women have proved to be the best in all their approaches and behind every success of women; these is a big struggle story. The eighth and final paper presents the relationship between job stress and the factors causing job stress for working and non-working women and concludes that there is no significant relationship between the working women feeling more stress than non-working women with taking into account the age of the employees as well.

The two book reviews in this issue, the first one on the book 'Change makers' by Venky Vembu and the second one on the book 'Being You: Against All Odds' by Preethi Rai.

We express our thanks to all members of our Editorial Board and Advisory Body, and to the reviewers for their continued support and encouragement. We hope this issue of RVIM Journal of Management Research will play a crucial role in creating and disseminating new knowledge in management, which is the sole purpose of this journal.

Happy Reading and Researching!

Purushottam Bung
Chief Editor

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Derivative Trading Strategy of Bank Nifty - A Heuristic Model

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Kushal Vachhani**

Mohit Sisodia***

Abstract

The primary objective of this paper is to provide small retail traders with a heuristic model in the form of a derivative trading strategy. It is an effort to design an easy and effective derivative trading strategy for retail traders who often lose money in the stock market as a result of insufficient information and ineffective trading methods. We have developed an observational technique that is based on the study of candlesticks that we conducted as part of our research. We tested our technique using bank nifty data for the last five years and found that it had a 60 percent accuracy rate, which is very impressive. Profits rose year after year when this method was used in the trading environment. Additionally, forecasting is also done for the next five years using the linear regression prediction model, with the method achieving an accuracy rate of 60 percent. We were able to demonstrate statistically by using the One-way Anova Test and found that, there is a significant correlation between actual data and predicted data.

Key Words: Bank Nifty, Candlesticks, Heuristic Model, Derivative Trading Strategy, Financial Market, BTST strategy.

Introduction

Bank Nifty : It monitors the performance of Indian banking firms that are liquid and well-capitalized, which is represented by the Nifty Bank Index (also known as Bank Nifty). Since it captures the equity performance of Indian banks, it acts as a benchmark for investors. Twelve businesses from the banking industry are included in the index, for twelve companies. The stocks of HDFC Bank (28.78 percent market capitalization and weight), ICICI Bank (21.06 percent market capitalization and weight), Kotak Mahindra Bank (12.07 percent), Axis Bank (12.06 percent), State Bank of India (SBI) (12.00 percent), the IndusInd Bank (5.36 percent), the AU Small Finance Bank Ltd. (1.98 percent), and Bandhan Bank (1.95 percent market capitalization and weight). The index first appeared in 2003 and has been in continuous operation since then.

Candlesticks: These are employed in the stock market to detect trading patterns and trade patterns. Technical analysts use these to identify the optimum moment to enter and exit the trade. Patterns may be

made by placing two or more candles in a certain sequence. A single candlestick pattern, on the other hand, might help in detecting major trading signals, which may be advantageous in certain circumstances. As a result, candlestick models are split into two categories: single candlestick patterns and multiple candlestick patterns.

Derivative Trading: Derivative is an agreement between two parties on the value and price of major assets results in the formation of a derivative contract. Futures and options are the most popular derivatives to trade in terms of volume, and they are the most liquid. There are many distinct types of derivatives, all of which are dependent on the value or price of an asset in one form or another. It is necessary to first establish a corpus, which may be comprised of a single asset or a group of assets, as the first stage in the process. It is unavoidable that the value of underlying assets will vary in response to changes in the value of fundamental assets throughout time. Trading products such as futures and options, which are similar in that they enable investors to benefit while maintaining ownership of their existing assets, have been popular

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in recent years. At any point throughout the contract's duration, a buyer has the option, but not the duty, to purchase (or sell) an asset at a stated price at his or her discretion. Without canceling his or her position before the contract expires, in which case the contract is considered void, the buyer is committed to buying a certain asset, and the seller is committed to selling and delivering that asset at a later period.

Literature Review

In 2020, Nitin Kulshrestha and Vinay K. Srivastava have used Amibroker software to evaluate the findings of the RSI Technical Analysis Indicator and Artificial Intelligence to decrease the magnitude of risk and uncertainty and obtain a strategic advantage in portfolio optimization. They concluded that the AI system they showed in their paper assisted investors in achieving good outcomes and in managing emotions when investing and trading. With the assistance of this approach, 90% of investors saw positive returns. They also said in their paper that additional research might be done in the future utilizing different technological indicators.

In 2019, Atheetha S, Simran Mondal, Dhanusha N, and Raghunandan H J presented a method for trading options. They provided a systematic method for determining the price of an option by examining the underlying's average price fluctuations. This study covers the technical elements of investing as well as a part of the fundamentals. They found that the majority of traders lose money in options trading by waiting for the maturity date. They addressed these disadvantages of options trading for a small trader with a restricted investment by recommending a method based on basic average computation to build wealth and maximize earnings. They found that while trading in the options market, intrinsic value, timing risk, and volatility all play a significant influence.

In 2014, DR.S. Rajmohan and M. Muthukamu conducted a study in which they compared the NSE bank nifty index with other sectoral indexes. The purpose of the research was to determine how the performance of the Bank Nifty Index compares to that of other sectoral indices. There were two hypotheses tested. No positive relationship exists between the performance of the Bank Nifty Index and the performance of other sectoral indices. They concluded that the bank nifty index has a positive effect on most of the NSE indices, independent of the state of the market.

Siriporn Thammakesorn and Ohm Sornil developed candlestick-trading techniques in 2018. Patterns in the

candlestick series are discovered to give clues about the next one's pricing. They found twenty-six distinguishing characteristics for candlestick chart patterns. The Chi-square Automatic Interaction Detector method is used to construct a trading strategy in the form of a classification tree utilizing features capable of recognizing candlestick chart patterns. Then, it is compared to eight widely utilized techniques on ten equities from Thailand's Stock Exchange. The method is compared to eight commonly utilized techniques on ten equities from Thailand's Stock Exchange.

Ananthi and K. Vijayakumar conducted a stock market analysis in 2020, using candlestick regression and trend forecasting. The k-NN regression model is used to forecast market trends in this instance. If technical indications are analyzed in conjunction with the stock prices of different businesses, a forecast may be made. Consequently, the accuracy was significantly improved when compared to other machine learning methods. In the future, full-fledged sentiment analysis will be introduced to aid in the forecasting of market trends. As the scope of market trend research is very broad, this kind of study may be performed in the future.

R. Amuthan in 2021 found a connection between the NIFTY 50 Index Trend and the NSE's Sector-based Indices Growth Momentum after COVID-19 in India. This study aims to find a connection between the NIFTY 50 and sector-based indices, forecast index points, and discover the best and worst-performing sector indices. March and April 2021 may be predicted using the E-Views-7 program. The results include the co-incident trend that used to exist in NIFTY IT and NIFTY Consumer Durables, which is because of a strong correlation. The co-linearity issue does not exist in this research, and NIFTY Consumer Durables is the best indicator of performance.

Yashasvi Chhikara and Parth Desai found the impact of macroeconomic variables and dividend yield on the Bank NIFTY Index in 2021. The study utilized quarterly data from January 1, 2010, to December 31, 2019. A regression model was employed to assess the impact of independent factors such as macroeconomic variables. The authors also used a multicollinearity test to determine the relationship between the independent variables. They discovered that although GDP, government bond rates, and dividend yields all had a significant impact on bank NIFTY returns, CPI had no influence. Furthermore, the test revealed that none of the independent variables is related to one another.

NEED OF RESEARCH

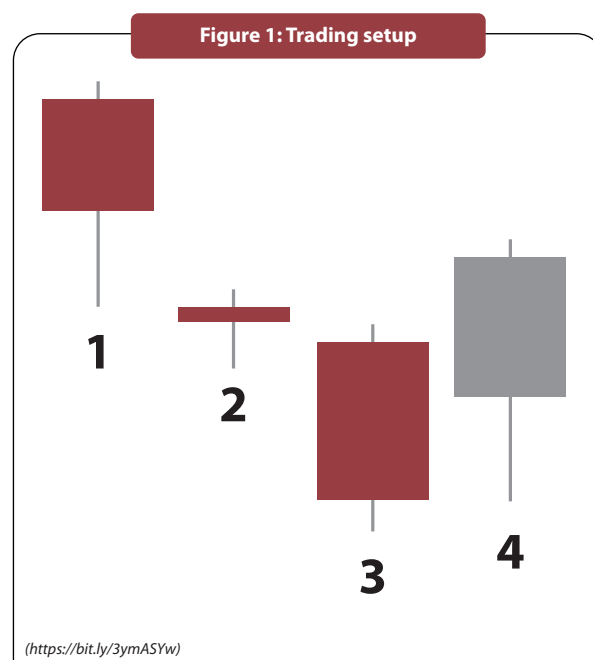
After conducting the literature survey of many published papers on this area, we concluded that there is no full-proof method for trading the Bank Nifty. Because of the stock market's V-shaped rebound in 2019, more investors poured into the market in 2020. Newcomers to the stock market have begun trading without enough understanding of derivatives trading, because of which they started losing money in the stock market. According to Nitin Khamat, CEO of Zerodha, "80% of all open purchase option positions at the end of each day are in the red" as of July 8, 2021. Hence, we did detailed research on this area and tried to develop a trading strategy for Bank Nifty, which can be easily applied by the investors and as well as result-oriented. If an investor is paying attention to the development of candlesticks, can simply trade using this technique. Trading opportunities utilizing this technique do not occur every day, but when they do, traders may take advantage of them by participating in BTST (Buy Today, Sell Tomorrow) or intraday trading.

BANK NIFTY STRATEGY – THE HEURISTIC MODEL

Traders employ several trading methods in the stock market, but the majority of them are not entirely reliable. One may lose money rather than make money because of certain techniques. Our trading strategy is completely based on price movement, apart from a few fundamental insights and price movement. We utilize a method that is similar to the buy today, sell tomorrow (BTST) strategy in that it only enables long positions in the market to be traded. This is our bank's nifty strategy, which is safe and lucrative. The goal of this study is to create a derivative trading strategy that is advantageous for small retail traders. Besides that, people who are inexperienced with technical analysis will benefit from this method. Keep in mind that this technique is only applicable to Indian Bank Nifty trading. The followings are the detailed steps of the trading strategy:

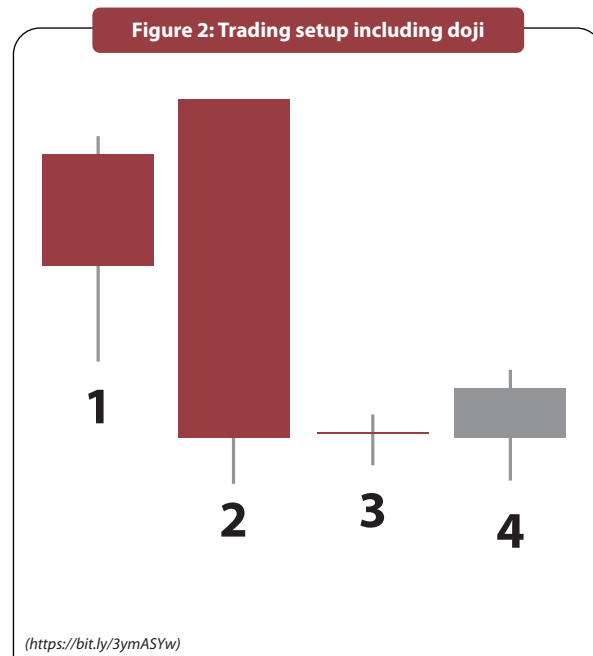
STEP-1: Open a bank nifty index chart on any charting provider app or website of your choice to watch the development of candlesticks.

STEP-2: Every day, traders must keep an eye on the Bank Nifty and look for three consecutive red candles, as shown in the following figure: 1. All three of the candles in the first, second, and third rows are red, and the fourth green candle indicates that a profit will be made. If the development of a red candle takes place on the third day, traders need to initiate a trade on that day. It is recommended that you enter the market at least five minutes before it shuts. To utilize this strategy, traders must have overnight positions open at all times.



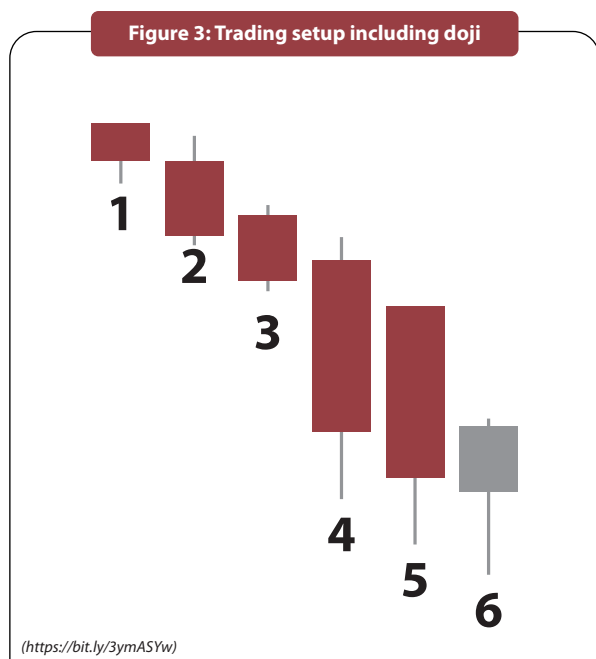
Now we will go over a few cases to keep in mind while utilizing our BTST bank nifty trading strategy to trade in the stock market.

CASE-1: When three consecutive red candles develop, as illustrated in figure 2, candlestick patterns such as doji may be integrated into those three candles for trading purposes.



CASE-2: Although it is not always essential for a green candle to appear after the placing of trade on the development of the third red candle, failing to create a green candle may have its advantages. The result is four red candles placed in a row adjacent to each

other, as illustrated in Figure 3. A green candle should be anticipated the next day in this instance because of our approach, and three consecutive candles from the second, third, and fourth candles should be considered three consecutive candles in this situation. When a red candle is created the next day, on the fifth day, as shown in figure 3, one should now inspect three consecutive candles from the third, fourth, and fifth candles produced earlier in the series, as shown in figure 3.

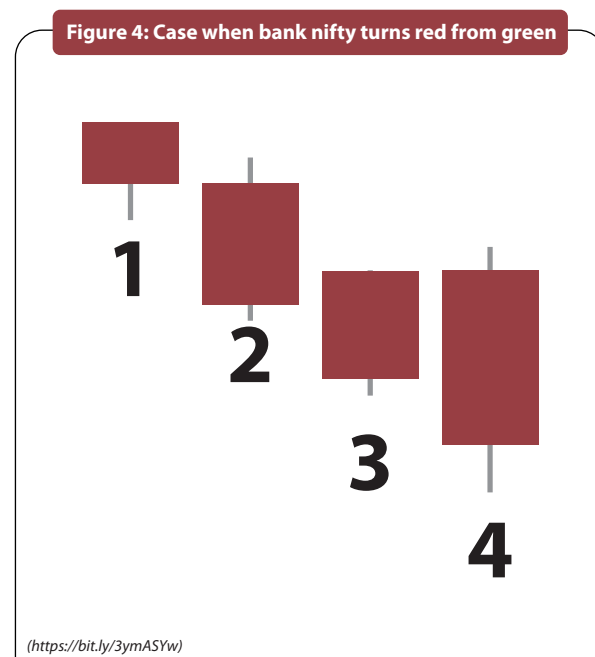


How To Trade The Strategy

This technique is based on derivatives trading, which means that to make a trade or position, any derivative trading instruments, such as options or futures, will need to be utilized. Options traders must purchase an in-the-money call option to enter a position. If the trading formation occurs on Thursday (the weekly expiration day of a weekly contract), the trader must select from among the available call option contracts the call option contract for the following week, which is usually the most favorable. The current month's futures contract, which is the month in which the trade setup is created, is where a trader must trade to be successful if he or she wants to use this technique for trading futures contracts.

The trader should set a stop loss before the creation of a position or the execution of a trade. This approach may help traders reduce their losses by making them more acquainted with what they are doing. If the bank nifty starts with a gap down the next trading day after you place a trade, you should immediately close out the position.

In the process of backtesting, we discovered that if you are in profit the next day, but the Bank Nifty turns red from green, wiping away your whole profit, you should establish a target at which one must book their profit. In figure: 42, it can be seen that the bank nifty was in the green on the fourth day, but subsequently went into the red.



Research Methodology

We have used the free charting platform www.tradingview.com to keep track of the setup's development. Then, using Microsoft Excel, we compiled all of the information by reviewing all of the formations that had happened during the last five years. We next used Microsoft Excel to calculate all of the potential returns and earnings connected with this strategy. Following that, we used a statistical model (the F-test) to see whether the data was significant, and we used Microsoft Excel to compute the F-statistical value and the P-value of the gathered data. We were then able to forecast future returns and accuracy for the method using a linear regression prediction model in Microsoft Excel.

Data And Analysis

The meaning of the terminologies used in the table given below as a part of the analysis are explained below:

- **Trade date:** This shows the date on which a trade was completed, or the date on which a trade setup was created and ready to go into effect.

- **Previous close:** This demonstrates at what price the Bank Nifty was closed, and it indicates that we must enter the trade on the same day it was closed.
- **Close on trade date:** This reflects the Bank Nifty index's closing price on a given day. We must either book profit or close out the position on this day.
- **Total up/down points:** Depending on the closing prices of both the closing prices, this data shows how many points the bank nifty was up or down.
- **Percentage of change:** This shows how much of a percentage point the Bank Nifty index was up or down.
- **Total profit on one lot:** It is shown by this number, which indicates the amount of profit that can be earned by just trading one lot of bank nifty futures. A single lot of bank nifty futures has twenty quantities; therefore, the calculation is twenty times the total number of up/sown points in a single lot.

Table:1 Back-tested five-year data

Trade Date	Previous Close	Close on Trade Date	Total Up/Down Points	% Change	Total Profit on One Lot of Bn
2016-2017					
8/4/2016	15530.75	15568.35	37.6	0.24%	752
5/5/2016	16274.25	16281	6.75	0.04%	135
6/5/2016	16281	16296.8	15.8	0.10%	316
18/5/2016	16762.75	16728.95	-33.8	-0.20%	-676
24/5/2016	16407.55	16456.65	49.1	0.30%	982
2/6/2016	17423.45	17567.8	144.35	0.83%	2887
15/6/2016	17672.4	17917.9	245.5	1.39%	4910
7/7/2016	18004.25	18084.9	80.65	0.45%	1613
3/8/2016	18708.25	18602	-106.25	-0.57%	-2125
5/8/2016	18571.7	18925.95	354.25	1.91%	7085
11/8/2016	18647.8	18640.4	-7.4	-0.04%	-148
29/8/2016	19195.75	19217	21.25	0.11%	425
12/9/2016	20245.3	19790.6	-454.7	-2.25%	-9094
23/9/2016	20109.6	19901.8	-207.8	-1.03%	-4156
28/9/2016	19518.7	19653.55	134.85	0.69%	2697
10/10/2016	19400.1	19378.55	-21.55	-0.11%	-431
17/10/2016	19020.15	19070.4	50.25	0.26%	1005
17/11/2016	19108.1	19087.85	-20.25	-0.11%	-405
22/11/2016	18446.4	18548.65	102.25	0.55%	2045
25/11/2016	18256.1	18507.3	251.2	1.38%	5024
21/12/2016	18069.4	18084.5	15.1	0.08%	302
23/12/2016	17891.45	17884	-7.45	-0.04%	-149
10/2/2017	20151.15	20213.9	62.75	0.31%	1255
15/2/2017	20258.1	20163.7	-94.4	-0.47%	-1888
20/2/2017	20551.35	20677.1	125.75	0.61%	2515
28/2/2017	20613.05	20607.25	-5.8	-0.03%	-116
22/3/2017	21019.00	20781.35	-237.65	-1.13%	-4753

Trade Date	Previous Close	Close on Trade Date	Total Up/Down Points	% Change	Total Profit on One Lot of Bn
2017-2018					
20/4/2017	21556.35	21491.4	-64.95	-0.30%	-1299
22/5/2017	22769.8	22652.85	-116.95	-0.51%	-2339
24/5/2017	22536.3	23190.8	654.5	2.90%	13090
4/8/2017	24675.05	24827.45	152.4	0.62%	3048
11/8/2017	24217.35	23985.75	-231.6	-0.96%	-4632
22/8/2017	23936.5	23974.45	37.95	0.16%	759
22/9/2017	24799.25	24368.85	-430.4	-1.74%	-8608
26/9/2017	24165.05	24199.15	34.1	0.14%	682
5/10/2017	24113.3	24058.05	-55.25	-0.23%	-1105
19/10/2017	24313.75	24009.75	-304	-1.25%	-6080
23/10/2017	24009.75	24088.9	79.15	0.33%	1583
9/11/2017	24184.35	25291.35	1107	4.58%	22140
16/11/2017	25218.9	25446.6	227.7	0.90%	4554
24/11/2017	24736.25	25779.65	1043.4	4.22%	20868
4/12/2017	25191.95	25075.1	-116.85	-0.46%	-2337
5/12/2017	25075.1	25124.85	49.75	0.20%	995
14/12/2017	25000.35	25168.2	167.85	0.67%	3357
4/1/2018	25318.6	25462.6	144	0.57%	2880
11/1/2018	25617.3	25660.9	43.6	0.17%	872
21/2/2018	24874.4	24936.7	62.3	0.25%	1246
5/3/2018	24902.55	24818.7	-83.85	-0.34%	-1677
8/3/2018	24134.1	24477.65	343.55	1.42%	6871
20/3/2018	24245.1	24168.2	-76.9	-0.32%	-1538
26/3/2018	23670.4	24244.35	573.95	2.42%	11479
Trade Date	Previous Close	Close on Trade Date	Total Up/Down Points	% Change	Total Profit on One Lot of Bn
2018-2019					
20/4/2018	25126.15	24943.85	-182.3	-0.73%	-3646
24/4/2018	24960.65	25042.1	81.45	0.33%	1629
18/5/2018	26073.8	25875.6	-198.2	-0.76%	-3964
24/5/2018	25684.95	26016.8	331.85	1.29%	6637
6/6/2018	26251	26367.6	116.6	0.44%	2332
12/6/2018	26453.55	26607.1	153.55	0.58%	3071
18/6/2018	26417.4	26409.3	-8.1	-0.03%	-162
20/6/2018	26265.75	26557.7	291.95	1.11%	5839
3/8/2018	27355.95	27695.5	339.55	1.24%	6791
27/8/2018	27834.7	28264.2	429.5	1.54%	8590
31/8/2018	28103.25	28061.75	-41.5	-0.15%	-830

6/9/2018	27376.05	27468.7	92.65	0.34%	1853
14/9/2018	26819.2	27163.85	344.65	1.29%	6893
21/9/2018	26277.85	25596.9	-680.95	-2.59%	-13619
25/9/2018	24970.35	25330.35	360	1.44%	7200
1/10/2018	24119.85	25367	1247.15	5.17%	24943
29/10/2018	24421.05	24959.7	538.65	2.21%	10773
9/11/2018	25737.5	25771	33.5	0.13%	670
5/12/2018	26693.8	26519.6	-174.2	-0.65%	-3484
7/12/2018	26198.3	26594.3	396	1.51%	7920
15/1/2019	27248.25	27400.75	152.5	0.56%	3050
25/1/2019	27266.4	27115.3	-151.1	-0.55%	-3022
30/1/2019	26573.4	26825.3	251.9	0.95%	5038
12/2/2019	27227.8	27010.75	-217.05	-0.80%	-4341
15/2/2019	26970	26794.25	-175.75	-0.65%	-3515
19/2/2019	26654.25	26684.85	30.6	0.11%	612

Trade Date	Previous Close	Close on Trade Date	Total Up/Down Points	% Change	Total Profit on One Lot of Bn
2019-2020					
4/4/2019	30093.3	29904.9	-188.4	-0.63%	-3768
24/4/2019	29479.7	29860.8	381.1	1.29%	7622
9/5/2019	28994.4	28884.6	-109.8	-0.38%	-2196
10/5/2019	28884.6	29040.5	155.9	0.54%	3118
9/7/2019	30603.85	30569.15	-34.7	-0.11%	-694
16/7/2019	30445.95	30570.8	124.85	0.41%	2497
23/7/2019	29284.95	29128.1	-156.85	-0.54%	-3137
25/7/2019	28952.25	29043.05	90.8	0.31%	1816
6/8/2019	27648.05	28022.1	374.05	1.35%	7481
22/8/2019	27719.05	27034.2	-684.85	-2.47%	-13697
23/8/2019	27034.2	26958.65	-75.55	-0.28%	-1511
19/9/2019	27172.65	26757.65	-415	-1.53%	-8300
20/9/2019	26757.65	28981.55	2223.9	8.31%	44478
3/10/2019	28725.5	28414.1	-311.4	-1.08%	-6228
9/10/2019	27767.55	28785	1017.45	3.66%	20349
15/10/2019	28181.95	28555.1	373.15	1.32%	7463
25/10/2019	29107.95	29395.95	288	0.99%	5760
4/12/2019	31613.35	31979.3	365.95	1.16%	7319
10/12/2019	31316.65	31160.35	-156.3	-0.50%	-3126
11/12/2019	31160.35	31256.75	96.4	0.31%	1928
27/12/2019	31997.7	32412.35	414.65	1.30%	8293
2/1/2020	32102.9	32443.85	340.95	1.06%	6819

8/1/2020	31399.4	31373.65	-25.75	-0.08%	-515
23/1/2020	30701.45	31004.05	302.6	0.99%	6052
30/1/2020	30877	30647.4	-229.6	-0.74%	-4592
3/2/2020	29820.9	30023.25	202.35	0.68%	4047
18/2/2020	30680.7	30562.5	-118.2	-0.39%	-2364
20/2/2020	30838.2	30942.85	104.65	0.34%	2093
3/3/2020	28868.4	29177.05	308.65	1.07%	6173
Trade Date	Previous Close	Close on Trade Date	Total Up/Down Points	% Change	Total Profit on One Lot of Bn
2020-2021					
7/4/2020	17249.3	19062.5	1813.2	10.51%	36264
6/5/2020	19271.75	19694.55	422.8	2.19%	8456
12/5/2020	18950.5	18862.85	-87.65	-0.46%	-1753
18/5/2020	18833.95	17573.2	-1260.75	-6.69%	-25215
20/5/2020	17486.25	17840.2	353.95	2.02%	7079
27/5/2020	17440.35	18710.55	1270.2	7.28%	25404
15/7/2020	21392.2	21340.75	-51.45	-0.24%	-1029
16/7/2020	21340.75	21597.15	256.4	1.20%	5128
3/8/2020	21640.05	21072.1	-567.95	-2.62%	-11359
4/8/2020	21072.1	21490.5	418.4	1.99%	8368
18/8/2020	21700.85	22170.6	469.75	2.16%	9395
8/9/2020	22945.05	22744.4	-200.65	-0.87%	-4013
14/9/2020	22479.95	22101.25	-378.7	-1.68%	-7574
15/9/2020	22101.25	22465.65	364.4	1.65%	7288
23/9/2020	21139.1	21178.5	39.4	0.19%	788
25/9/2020	20456.58	20982.35	525.77	2.57%	10515.4
2/11/2020	23900.9	24892.5	991.6	4.15%	19832
4/1/2021	31225.85	31212.45	-13.4	-0.04%	-268
5/1/2021	31212.45	31722.25	509.8	1.63%	10196
12/1/2021	31998.9	32339	340.1	1.06%	6802
19/1/2021	31811.75	32424.85	613.1	1.93%	12262
27/1/2021	31198.4	30284.55	-913.85	-2.93%	-18277
28/1/2021	30284.55	30358.3	73.75	0.24%	1475
11/2/2021	35783.1	35752.1	-31	-0.09%	-620
19/2/2021	36587	35841.6	-745.4	-2.04%	-14908
24/2/2021	35116.95	36452.3	1335.35	3.80%	26707
2/3/2021	35296	35419.7	123.7	0.35%	2474
16/3/2021	35182.55	34804.6	-377.95	-1.07%	-7559
19/3/2021	33856.8	34161.6	304.8	0.90%	6096
30/3/2021	33318.2	33875.1	556.9	1.67%	11138

Source: Compiled by the Authors

"FORECAST.ETS(target_date, values, timeline, [seasonality], [data_completion], [aggregation])" is the function used to forecast data in excel. FORECAST.ETS function computes or forecasts a future value based on current (historical) data using the AAA version of

the Exponential Smoothing (ETS) approach, which is a kind of exponential smoothing procedure. The forecast is that historical values will be used in the specified target date, which should correlate to the projected timeline.

Table:2 Actual and Forecasted data

ACTUAL DATA					
PARTICULAR	2016	2017	2018	2019	2020
Total No. of Trades	27	24	26	29	30
Winning Trades	16	15	17	17	19
Lossing Trades	11	9	9	12	11
Winning Accuracy (%)	59.26	62.5	65.38	58.6	63.33
Lossing Accuracy (%)	40.74	37.5	34.62	41.38	36.67
FORECASTED DATA					
Particular	2021	2022	2023	2024	2025
Total No. of Trades	31	34	35	38	38
Winning Trades	19	21	21	24	22
Lossing Trades	12	13	14	14	16
Winning Accuracy (%)	61.29	61.76	60.00	63.16	57.89
Lossing Accuracy (%)	38.71	38.24	40.00	36.84	42.11

Source: Computed by the Authors

Given below is the table that depicts the formula of calculation of the One-way ANOVA Test.

Table:3 Formula for calculating model in Excel

Source	Degrees of Freedom (DF)	Sum of Squares (SS)	Mean Square (MS)	F-Stat	P-Value
Between Groups	$k - 1$	SSb	$MSb = SSb / (k - 1)$	$F = MSb / MSw$	Right tail of F (k-1, N-k)
Within Groups	$N - k$	SSw	$MSw = SSw / (N - k)$		
Total:	$N - 1$	$SSt = SSb + SSw$			

Were,

- Between Groups Degrees of Freedom: $DF = k - 1$, where k is the number of groups
- Within Groups Degrees of Freedom: $DF = N - k$, where N is the total number of subjects
- Total Degrees of Freedom: $DF = N - 1$
- Sum of Squares Between Groups: $SSb = \sum_{i=1}^{n_i} (x_i - \bar{x})^2$, where n_i is the number of subjects in the i -th group
- Sum of Squares Within Groups: $SSw = \sum_{i=1}^{n_i} (n_i - 1) S_i^2$, where S_i is the standard deviation of the i -th group
- Total Sum of Squares: $SSt = SSb + SSw$
- Mean Square Between Groups: $MSb = SSb / (k - 1)$
- Mean Square Within Groups: $MSw = SSw / (N - k)$
- F-Statistic (or F-ratio): $F = MSb / MSw$

Table: 4 Data summary of ANOVA test for total no. of trades actual and forecasted

Data Summary					
Groups	N	Mean	Std. Dev.	Std. Error	
Total no. of trades (actual)	5	27.2	2.3875	1.0677	
Total no. of trades (forecasted)	5	35.2	2.9496	1.3191	
ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	160	160	22.2218	0.0015
Within Groups	8	57.6012	7.2001	-	
Total:	9	217.6012	-		

Source: Computed by the Authors

Table: 5 Data summary of ANOVA test for winning trades actual and forecasted

Data Summary					
Groups	N	Mean	Std. Dev.	Std. Error	
Winning trades (actual)	5	16.8	1.4832	0.6633	
Winning trades (forecasted)	5	21.4	1.8166	0.8124	
ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	52.9	52.9	19.2367	0.0023
Within Groups	8	21.9997	2.75	-	
Total:	9	74.8997	-		

Source: Computed by the Authors

Table: 6 Data summary of ANOVA test for losing trades actual and forecasted

ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	28.9	28.9	14.4508	0.0052
Within Groups	8	15.9991	1.9999	-	
Total:	9	44.8991	-		

Data Summary				
Groups	N	Mean	Std. Dev.	Std. Error
Losing trades (actual)	5	10.4	1.3416	0.6
Losing trades (forecasted)	5	13.8	1.4832	0.6633

Source: Computed by the Authors

Table: 7 Data summary of ANOVA test for winning accuracy actual and forecasted

Data Summary					
Groups	N	Mean	Std. Dev.	Std. Error	
Winning accuracy (actual)	5	61.814	2.8433	1.2716	
Winning accuracy (forecasted)	5	60.82	1.9898	0.8899	
ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	2.4701	2.4701	0.4102	0.5398
Within Groups	8	48.1746	6.0218	-	
Total:	9	50.6447	-		

Source: Computed by the Authors

Table: 8 Data summary of ANOVA test for losing accuracy actual and forecasted

ANOVA Summary					
Source	Degrees of Freedom DF	Sum of Squares SS	Mean Square MS	F-Stat	P-Value
Between Groups	1	2.49	2.49	0.4146	0.5377
Within Groups	8	48.0474	6.0059	-	
Total:	9	50.5374	-		

Data Summary				
Groups	N	Mean	Std. Dev.	Std. Error
Losing accuracy (actual)	5	38.182	2.8377	1.269
Losing accuracy (forecasted)	5	39.18	1.9898	0.8899

Source: Computed by the Authors

Table 9: Summary of F-statistical value and P-value

F-Statistical value and P-Value		
Particulars	F-Statistical value	P-Value
Total no. of trades	22.22176	0.00151
Winning trades	19.23665	0.00233
Lossing trades	14.45082	0.00523
Winning auracy (%)	0.41019	0.53978
Lossing accuracy (%)	0.41459	0.53767

Source: Computed by the Authors

Findings

We have tested our method by using data from the Bank Nifty Index for the last five years, as we have utilized bank nifty futures in the calculation. As shown in table:1, we have incorporated all of the information regarding the total number of trades and the accuracy percentage. With our strategy, we found to have a sixty percent success rate. As we projected data for the next five years, we found that our method has a sixty percent yearly accuracy rate. This was a significant finding for us. Following that, we computed the total profit that may be made by trading a single lot of bank nifty futures contracts on the open market. Trading our approach has the potential to generate Rs.3,58,346/-in five years.

We also used a linear regression prediction model to anticipate data for the next five years, which proved to be very accurate. In our research, we found a consistent accuracy of sixty percent, as previously indicated. More detailed predicted data is shown in the table: 2.

Using the One-way Anova test, we found to have a significant relationship between actual and forecasted data. All the related data for the test are given in the table: 4 to table: 9.

μ_0

=there is no significant relationship between actual and forecasted data of selected variable.

μ_1

=there is significant relationship between actual and forecasted data of selected variable.

Where μ_1 is the alternative hypothesis which we can denote when the μ_0 is rejected. The hypothesis will be rejected if the p-value is less than the usual significant threshold of 0.05, and the alternative hypothesis will be taken into account. Below are the results of a square test.

- A one-way ANOVA test of independence showed that there was a significant relationship between TOTAL NO. OF TRADES (actual and forecasted) as $p < 0.05$.
- A one-way ANOVA test of independence showed that there was a significant relationship between WINNING TRADES (actual and forecasted) as $p < 0.05$.
- A one-way ANOVA test of independence showed that there was a significant relationship between LOSING TRADES (actual and forecasted) as $p < 0.05$.
- A one-way ANOVA test of independence showed that there was no significant association between WINNING AUURACY (actual and forecasted) as $p > 0.05$.
- A one-way ANOVA test of independence showed that there was no significant relationship between LOSING AUURACY (actual and forecasted) as $p > 0.05$.

We can define that the forecasted data for winning and losing accuracy is insignificant.

Recommendations

- We suggest that small retail traders trade one lot of Bank Nifty options or futures to trade our Bank Nifty strategy since we can only trade our Bank Nifty strategy using options and futures.
- One needs to ensure that while trading, a stop loss should be established for the transaction before the

beginning.

- Wait until the setup has been established before entering the trade.
- When major events occur, such as an announcement by the RBI, a press release by the government, an announcement of the monetary policy, an announcement of GDP data, an announcement of the government's budget, and so on, avoid trading or trading with a tight stop loss because there will be significant volatility on that day.
- If you are a novice trader, we recommend that you start with paper trading to understand our technique before going on to the live market.
- Trading our technique does not entail a promise that one will make a profit every time the strategy is used. Trading our technique may result in a loss for any trader who does not have a firm grasp of the strategy or does not comprehend how it works.
- Depending on one's understanding of strategy and trading methods, one must decide whether to engage in trading activities. It is solely the responsibility of the trader who is using our technique to bear any losses made because of the strategy's implementation.

Conclusion

It has been seen that, now-a-days many retail traders have been flocking to the stock market in record numbers, without the required knowledge or a trading strategy in place. The results of our study shows that individual retail traders are more interested in derivative trading as compared to stock trading. Many a times investors are interested in options trading, as they are more appealing to traders since their margin requirements are smaller, and the cost of buying an option is extremely cheap. We have developed an easy-to-understand and implement the trading method for retail traders who wish to trade derivatives. This approach is called bank nifty trading. The promise of being ninety percent accurate should be greeted with caution since no technique can guarantee accuracy ninety percent of the time. For big traders, the risk-to-reward ratio is becoming more crucial to their decisions. Regardless of how precise one's trading is, if one's risk-to-reward ratio is incorrect, one will lose money because of the inherent risk involved in the trading process. For example, every trader should use basic methods, physiological principles, trading regulations, and discipline to conduct himself or herself professionally.

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Impact of Corporate Social Responsibility on Financial Performance of Select Sectors of Indian Stock Market

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Abstract

The Companies Act, 2013 made it obligatory for companies' to spend at least 2% of average net profits of 3 immediately preceding financial years on specified areas of social causes for the betterment of stakeholders and society in general. The present study examines the impact of CSR spending on financial parameters for six sectors, viz. Oil and Gas, Chemicals, Metals and Mining, Consumer durables, Pharmaceutical and Construction/Cement sector comprising of 30 companies' for six years 2014 - 2020. The results indicate that corporate social responsibility has an impact on financial performance of firms'. Further the impact is more evident for environmentally sensitive sectors than environmentally insensitive sectors.

Keywords: Corporate social responsibility, financial performance, net profit, return on assets, earnings per share

Introduction

Corporate Social Responsibility (CSR) is a way of managing the business process while taking initiatives for improving the social, economic and environmental development with the consideration of the human rights. It aims at making profit considering the welfare of the society. Corporate Social Responsibility helps in the nation building process by improving the corporate governance, transparency and accountability to the stakeholders (Tamvada, 2020). Empirical studies reveal that CSR has positive impact on financial performance of organisations (Wu et.al., 2020; Tyagi and Nagarachari, 2019; Menezes, 2019 and Lee and Jung, 2016).

Literature review

Dynamic Panel regression model was used by Jaisinghani and Sekhon (2020) to study the impact of CSR disclosures with respect to profitability for listed firms in India. The results indicated CSR disclosures to be significant. The relation between CSR and financial performance of private general insurance companies was examined by Mehta and Oza (2019). They concluded the existence of correlation between firm's CSR and net income. A positive effect of CSR on firms' performance was established by Laskar and Maji (2016). Similar positive effect of CSR on financial performance was obtained by Lee & Jung (2016), Wang

(2014) Siddiq & Javed (2014) and Kanwal, Khanam, Nasreen and Hameed (2013), Kaur and Dave (2021). Adapting Isaksson's research (2012) to Indian context, Mitra (2021) concluded that CSR has both a positive and significant impact on firm performance.

Contrary to the above results, Aupperle, Carroll and Hatfield (1985) concluded that firms with a corporate social responsibility committee on their boards did not differ in profitability from other firms. McWilliams & Siegal (2000) found that CSR has a neutral impact on financial performance. Sharma, Sharma, Ali and Dadhich, (2021) inferred that there is no significant association between CSR Score and Financial Performance of Manufacturing Sector Companies. A study of Indian firms by Mishra and Saur (2010) established that listed firms showed responsible business practices and better financial performance than the non-listed firms.

Previous studies in CSR of Indian companies focus on analysing certain specific sectors or companies. Some studies analysed top companies based on CSR activities Kaur and Tandon (2017) and Ahluwalia (2018). Gupta, Bhadoria and Singh (2019) compared Maruti Suzuki India Ltd. and Tata Motors Ltd. Vethirajan (2014) analysed pharmaceutical sector and Sharma and Bhatnagar (2014) on mining industry. Prior to the amendment of companies Act 2013, Gautam and Singh (2010) conducted an exhaustive study of

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top 500 companies identifying key CSR activities and mapping it to Global Reporting Initiative standards. The current research aims to analyse the impact of CSR on financial performance. It encompasses six sectors, consisting of 30 companies, further classifying the sectors into environmentally sensitive and environmentally insensitive. It also attempts to compare the two groups in terms of significance of CSR on financial performance.

Objectives

- To determine the average CSR expenditure and financial performance of select companies from 2014 to 2020.
- To examine the relation between CSR outlay and the financial performance of the select sectors.
- To analyse the impact of CSR outlay on the financial parameters.
- To compare the impact of CSR outlay on the financial parameters between Group I and Group II sectors.

Research Design

The purpose of the study is to examine the impact of CSR activities on the profitability of the company.

Data for six years from 2014-2020 of five companies each from six select sectors listed on National Stock Exchange (NSE) are taken for the study. The dependent variable is the CSR expenditure and the independent variables are Net profit, Return on Assets (ROA), Return on Equity (ROE), Return on Capital Employed (ROCE) and Earning per Share (EPS). The study is based on secondary data sources collected from Sustainability, Annual and CSR reports of the Companies, Notes to accounts, Director's Report, Auditors report and Schedule and Official websites. The sectors are further classified into Group I and Group II. The environmentally sensitive sectors are considered as Group-I involving Oil and Gas, Chemicals, Metals and Mining sector and Group-II being insensitive to the environment, consisting of Consumer durables, Pharmaceutical and Construction/Cement sector.

Null Hypothesis: H_0

There is no significant impact of CSR outlay on the firm's financial performance.

Alternate Hypothesis: H_1

There is a significant impact of CSR outlay on the firm's financial performance.

Results and Discussions

Table 1: Average financial values for the years' 2014-2020

Sl. No	Company	(Rs Cr)		%			Rs.
		CSR Outlay	Net Profit	ROA	ROE	ROCE	EPS
1	ONGC India	522.0	18654.5	7.2	11.2	14.6	15.7
2	HPCL	118.8	4638.0	5.5	22.6	15.5	58.4
3	MRPL	21.3	487.8	1.8	3.5	6.4	2.8
4	Oil India	115.5	2367.1	5.6	10.3	11.1	29.6
5	Jindal Drilling	0.7	22.4	1.9	1.8	2.6	8.2
6	Premier Explosives	0.3	6.2	3.3	5.9	9.9	6.6
7	Finolex Industries	6.9	277.7	10.2	14.7	20.6	21.6
8	Tide Water Oil Co.	1.1	108.5	13.5	15.1	23.2	557.5
9	Pidilite	19.2	843.1	18.8	24.8	35.5	16.5
10	Solar Industries	3.4	148.5	13.5	20.2	25.2	32.5
11	Jindal Steel	68.9	-458.8	-0.8	-1.8	5.3	-5.0
12	APL Apollo	0.3	84.1	4.3	10.5	14.3	35.3

Sl. No	Company	(Rs Cr)		%			Rs.
		CSR Outlay	Net Profit	ROA	ROE	ROCE	EPS
13	Hindustan Copper	4.8	-28.5	-0.6	-5.8	1.7	-0.3
14	NMDC Ltd.	184.9	4016.2	13.0	14.8	23.3	11.6
15	NALCO	29.2	998.4	6.5	8.8	12.4	4.7
16	Whirlpool India	6.9	332.5	10.9	20.8	30.6	26.2
17	Voltas Ltd.	8.4	447.3	7.7	15.4	20.2	13.5
18	Blue star Ltd.	1.9	127.0	4.6	15.4	15.7	13.4
19	Havells India ltd.	14.5	659.4	12.3	19.8	25.9	10.6
20	Bajaj Electricals	2.0	73.3	2.0	7.9	15.7	7.2
21	Biocon Ltd.	8.2	403.5	6.2	7.5	7.6	13.2
22	Piramel Enterprises	26.0	335.3	1.5	2.5	6.8	20.0
23	Glaxo Smith Kline	11.1	345.1	10.2	16.0	27.9	35.5
24	Abbott India	8.4	367.6	15.7	23.1	34.7	173.0
25	Sun Pharma	5.0	293.8	0.7	0.5	3.5	1.3
26	NCC Ltd.	4.0	301.7	2.7	7.2	16.1	5.3
27	J Kumar Infra projects	3.0	133.7	4.8	9.9	14.5	21.1
28	MBL Infra	0.04	75.3	0.002	7.0	7.3	18.7
29	Deccan Cements	0.9	42.3	7.3	12.1	17.2	38.0
30	Simplex Infra	1.5	35.1	0.4	2.5	9.9	8.1

Table 2: Correlation and Regression summary for Oil & Gas Sector

	Correlation Coefficient	Regression				Regression Statistics	
		Coefficients	Standard Error	t Stat	P-value		
Intercept	-	-17.92	60.78	-0.29	0.77	Multiple R	0.65
Net Profit	0.94	7.26	4.50	1.62	0.12	R Square	0.43
ROA	0.36	-14.78	23.98	-0.62	0.54	Adjusted R Square	0.31
ROE	0.13	-14.50	8.90	-1.63	0.12	Standard Error	163.32
ROCE	0.32	30.50	14.98	2.04	0.05	Observations	30
EPS	-0.03	-0.04	1.59	-0.03	0.98		

The co-efficient of correlation between net profit and CSR spending for Oil and Gas sector has very high degree of positive correlation (0.94). There is a low degree of positive correlation with ROA and ROCE whereas ROE shows a very low degree of positive

correlation. EPS is negatively correlated with the CSR spending. Co-efficient of determination implies that 43% of variation in the CSR spending is explained by the financial indicators of NP margin, ROA, ROE, ROCE and EPS.

Table 3: Correlation and Regression summary of Chemical Sector

	Correlation Coefficient	Regression				Regression Statistics	
		Coefficients	Standard Error	t Stat	P-value		
Intercept	-	0.87	2.34	0.37	0.71	Multiple R	0.85
NP Margin	0.97	0.14	0.44	0.31	0.76	R Square	0.73
ROA	0.57	3.20	0.80	4.01	0.0005*	Adjusted R Square	0.67
ROE	0.60	-1.98	0.54	-3.68	0.0012*	Standard Error	4.36
ROCE	0.62	0.07	0.26	0.26	0.80	Observations	30
EPS	-0.23	-0.03	0.01	-4.19	0.0003*		

*Significant at 5% level

The correlation co-efficient between net profit with CSR spending for Chemical sector exhibits a very high degree of positive correlation (0.97). There is moderate to high degree of positive correlation with

ROA, ROE and ROCE is also computed. 73% of variation in the CSR spending is explained by the financial indicators of NP margin, ROA, ROE, ROCE and EPS. The CSR spending for Chemical sector has significant impact on ROA, ROE and EPS

Table 4: Correlation and Regression summary of Metals & Mining Sector

	Correlation Coefficient	Regression				Regression Statistics	
		Coefficients	Standard Error	t Stat	P-value		
Intercept	-	12.01	13.22	0.91	0.37	Multiple R	0.91
NP Margin	0.79	6.11	1.03	5.95	0.00*	R Square	0.82
ROA	0.54	-10.31	4.87	-2.12	0.04*	Adjusted R Square	0.78
ROE	0.28	-6.00	1.08	-5.56	0.00*	Standard Error	33.42
ROCE	0.52	6.52	2.17	3.00	0.01*	Observations	30
EPS	-0.09	-0.11	0.49	-0.22	0.83		

A high degree of positive correlation co-efficient between net profit and CSR spending can be observed for Metals and Mining sector from Table 4. There is a low to moderate degree of positive correlation with ROE, ROCE, and ROA. Further 82% of variation in the

CSR spending is explained by the financial indicators of NP margin, ROA, ROE, ROCE and EPS. It can be further observed that CSR spending has significant impact on Net Profit, ROA, ROE and ROCE for metals and mining sector

Table 5: Correlation and Regression summary of Consumer Durable Sector

	Correlation Coefficient	Regression				Regression Statistics	
		Coefficients	Standard Error	t Stat	P-value		
Intercept	-	4.85	2.67	1.82	0.08	Multiple R	0.83
NP Margin	0.93	1.01	0.59	1.70	0.10	R Square	0.68
ROA	0.65	0.94	0.66	1.42	0.17	Adjusted R Square	0.62
ROE	0.30	-0.60	0.21	-2.79	0.01*	Standard Error	3.32
ROCE	0.39	-0.06	0.17	-0.34	0.73	Observations	30
EPS	0.17	-0.01	0.10	-0.07	0.95		

*Significant at 5% level

The correlation co-efficient between net profit and CSR outlay for Consumer Durable sector reflects a very high degree of positive correlation. A moderate degree of positive correlation exists for ROA, ROE, ROCE and EPS with CSR spending. Co-efficient of

determination infers that 68% of variation in the CSR spending is explained by the financial indicators of NP margin, ROA, ROE, ROCE and EPS. However CSR outlay has significant impact only on ROE for consumer durable sector.

Table 6: Correlation and Regression summary of Pharmaceutical sector

	Correlation Coefficient	Regression				Regression Statistics	
		Coefficients	Standard Error	t Stat	P-value		
Intercept	-	13.53	2.87	4.71	0.00	Multiple R	0.47
NP Margin	-0.08	0.19	0.19	1.00	0.33	R Square	0.22
ROA	-0.31	-2.01	1.35	-1.48	0.15	Adjusted R Square	0.06
ROE	-0.26	0.46	1.08	0.43	0.67	Standard Error	7.73
ROCE	-0.19	0.23	0.31	0.75	0.46	Observations	30
EPS	-0.10	0.04	0.03	1.21	0.24		

The correlation co-efficient of net profit with CSR outlay for pharmaceutical sector implying low degree of negative correlation. Other financial parameters are also negatively correlated with the CSR spending. 22% of variation in the CSR spending is explained

by the financial indicators of NP margin, ROA, ROE, ROCE and EPS. It can be inferred that CSR outlay has no significant impact on the financial parameters of pharmaceutical sector.

Table 7: Correlation and Regression summary of Construction / Cement sector

	Correlation Coefficient	Regression				Regression Statistics	
		Coefficients	Standard Error	t Stat	P-value		
Intercept	-	1.06	0.94	1.13	0.27	Multiple R	0.65
NP Margin	0.60	-0.03	0.02	-1.76	0.09	R Square	0.42
ROA	0.21	0.21	0.17	1.24	0.23	Adjusted R Square	0.30
ROE	0.06	0.31	0.12	2.55	0.02	Standard Error	1.68
ROCE	0.32	0.03	0.11	0.24	0.81	Observations	30
EPS	-0.13	-0.13	0.04	-3.53	0.00*		

*Significant at 5% level

Net profit is moderately correlated with CSR spending for Construction/Cement sector. ROE has low degree of positive correlation with the CSR spending whereas EPS is negatively correlated. Co-efficient of determination implies that 42% of variation in the CSR spending is explained by the financial indicators of NP margin, ROA, ROE, ROCE and EPS. CSR spending has significant impact only on EPS for construction and cement sector.

Table 8: Coefficient of Correlation between CSR spending and Net Profit

	Correlation
Group I Sector	0.97
Group II Sector	0.65

Table 9: Regression Values for Group-I

	Coefficients	t Stat	P-value
Intercept	42.63	1.72	0.09
NP Margin	7.55	5.36	0.00*
ROA	-18.60	-2.41	0.02*
ROE	-0.80	-0.39	0.70
ROCE	6.10	1.48	0.14
EPS	0.12	1.31	0.19

*Significant at 5% level

Table 10: Regression Values for Group-II

	Coefficients	t Stat	P-value
Intercept	6.47	4.33	0.00
NP Margin	0.07	1.67	0.10
ROA	0.81	2.77	0.01*
ROE	-0.39	-2.20	0.03*
ROCE	-0.03	-0.20	0.84
EPS	0.00	-0.02	0.98

*Significant at 5% level

The CSR outlay has significant impact on Net profit and ROA of Group I sector. The CSR outlay has significant impact on ROA and ROE for such sectors. It can be further observed that CSR spending has significant impact on ROA irrespective of sensitivity to the environment.

Conclusion

The Companies Act, 2013 made it obligatory for companies' to spend 2% of average net profits of 3 immediately preceding financial years on specified areas of social causes for the betterment of stakeholders and society in general. The present study examines the impact of CSR spending on financial parameters for six sectors, comprising of 30 companies' for the years 2014 through 2020. There is very high correlation between CSR spending and net profit for Oil and Gas, Chemicals and Consumer durable sectors. EPS is negatively correlated with CSR spending for all sectors except Consumer durable. The result is similar to that of Lin et.al, (2009), Mentor (2016) and Kaur and Singh (2021). The study concludes that environmentally sensitive sectors follow socially responsible initiatives having significant positive impact on financial performance. Firms' have to adopt CSR activities to meet their social goals along with profit minded pursuits. The COVID -19 pandemic has also forced firms' to realign their focus to meet the needs of all stakeholders of the society.

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Factors Influencing Customer Satisfaction in Bangalore Shopping Malls: Before & During COVID – 19 Pandemic

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Abstract

Retail sector is an important contributor to the country's GDP in any economy. It is observed that this retail market in the country is growing rapidly. Shopping malls are one of the major parts in organised retail sector. The growth of shopping malls is depending on the number of customer visits. The customers are visiting the shopping malls to purchase products. An increase in the number of visits indicates the better performance of the sector. On the other side, number of customer visits to the malls depends on customer satisfaction in the malls. These shopping malls perform many activities to attract the customers. In the present study, it is proposed to determine the factors which lead to customer satisfaction. Among the many factors, the study considers five major factors which determine the customer satisfaction. The shopping malls are badly affected by COVID – 19 virus. The satisfaction level of the customer may be different in two time periods, before pandemic and during pandemic. Here, we used multiple regression analysis to estimate the effect of these shopping mall activities on customer satisfaction in both the periods. A step-wise regression analysis is also carried out. It is also proposed to test the significance of the differences in means of the selected shopping malls activities between the two time periods.

Keywords – COVID -19, Customer Satisfaction, Pandemic, Retail, Shopping Malls

Introduction

Retail sector in India is transformed as one of the fast growing and dynamic part due to the entry of many new players. It has become a leading global destination in the retail sector. Organised retail in the country is growing quickly and shift of the unorganised retail towards organised retail is happening rapidly. Urbanization is also making the growth of organised retail. Shopping malls are playing key role in the growth of organised retail sector.

According to the Retailers Association of India (RAI), the retail industry achieved 93% of pre-COVID sales in February 2021; quick service restaurants and consumer durables increased by 18% and 15% respectively. After a sharp decline of 19% in 2020 (January – March quarter), the FMCG sector slightly recovered in July-September 2020 quarter with a year on year growth of 1.6%. The growth displayed in the FMCG sector was also a indication of positive growth in the overall macroeconomic perspective amid reopening of the economic activity and easing of the restrictions kept during lockdown.

The retailers in the shopping malls operate in a highly competitive environment. They require effective management to satisfy the customers. The shopping is a regular activity in people's lives and it is evolving and exploring multiple options. Proper investigation and taking the decision is important aspect to have a pleasant shopping experience to achieve satisfaction. The study of consumer behaviour is not recent. Flatters and Willmott (2009) study identified that consumers try to maximise their utility, joy or satisfaction by purchasing consumer goods. Since 1950s, the emotional and rational contexts of consumption have been studied. Different shopping motivations were proposed, combining multiple motivations into two types, namely, utilitarian and hedonic motivations. Shopping motivations were deeply studied in consumer behaviour in shopping over the past decades (Wagner & Rudolph, 2010). Shopping mall customers visit shopping malls not only to explore and purchase products but also they visit for entertainment. They feel it is an entertainment activity that

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provides pleasure and fun (Kim, Lee & Kim, 2011). Shopping mall visitors also engage in various other activities when visiting shopping malls (Farrag, El Sayed and Belk, 2010). According to Kim, Lee and Suh (2015) it has already become a lifestyle to the customers to purchase products while spending time in a shopping mall. It includes a combination of both culture and shopping, rather than just going to a shopping mall only to purchase goods. Hunneman, Verhoef and Sloot (2017) proved that visitors tend to assess store attributes in different ways depending on the type of shopping trip.

During the COVID – 19 pandemic there are certain changes in the consumer behaviour and changes were noticed in a shopping pattern in retail sector comparing to the pre pandemic scenario. It has brought some change in the way of achieving customer satisfaction in the shopping malls. Understanding the changes occurred in achieving Customer satisfaction in Pre pandemic and during pandemic scenario is important for the sustainability and to adapt accordingly. It led authors' interest to explore consumer behaviour before and during COVID-19.

Literature Review

Alya Zulfa Cahyani (2021) studied and proved that application of price and promotion in shopping malls to achieve customer loyalty and taking the buying decisions as a moderator is significant. This study also explained the implications to save the retailers, who are not functioning at present, suitable suggestions were given to the retailers to improve their methods of marketing by providing the goods and services with competitive prices, discounts etc to safeguard the customer loyalty.

Salma. Akter, Taj Ashrafi, Victoria Waligo (2021) made a detailed research on pandemic impact on consumer behaviour, consumption and purchase behaviour in a developing country such as Bangladesh. The results of the study strongly indicated that the safety and health concern, financial condition, imposed restrictions, and other realities caused a noticeable shift in consumer purchase behaviour.

Vilas Chauhan and Heer Shah (2020) made a detailed study on consumer behaviour, Sentiments and consumption habits during pandemic and identified that 76.5% respondents believed that COVID – 19 pandemic brought a change in their consumer behaviour and 23.5% felt that there is no impact of pandemic on their purchase behaviour and also observed that on an average 52.2% of the respondents felt that there is a change in their shopping pattern. Through the observations of the study, authors came to a conclusion that the primary impact of pandemic was evident on delay purchases, non-availability of products

were observed at the retail outlets from where the purchase was intended, Purchase of alternative product and stock piling to avoid shortage in future.

Eger, L., Komárková, L., Egerová, D., & Mičík (2021) made an extensive research on Generational perspective on consumer behaviour during pandemic to understand the impact and trend of purchase behaviour during corona pandemic. The results of the research indicated the change in consumer behaviour patterns at the beginning of the second wave of the pandemic in Czech Republic. The conclusion of the study stated that there are similarities and also some significant differences noticed in consumer behaviour among the generations. The top three customer purchase reasons were availability, quality and convenience.

Moon, J., Choe, Y., & Song, H. (2021) observed that major variables that influenced the consumers' selection of offline distribution channels or online shopping channels were social distancing, recognition of government policy, attitude toward COVID-19 and subjective norm. Consumers who had negative attitudes toward COVID-19 pandemic believed that the people around them might respond to their behaviours negatively indicated that they would use more online instead of offline shopping channels.

Bidyut Jyoti Gogoi (2021) made a study and found that Firm's need loyal customers to sustain in tough competition and uncertainty. Customer satisfaction plays a big role in creating a pool of loyal customers. The loyal customers are needed also to voice out for the company products and services. Customer loyalty also helps in creation of positive brand image. Brand reputation helps the firm to stand out even during tough times. The Covid19 pandemic has brought several changes in the way consumer behaves towards a brand. The brand strategies have also undergone changes to meet the consumer requirements.

In previous studies, researchers focused on consumer behaviour in shopping malls in various places. They concentrated on demographics, economic factors, etc. Efforts are not made to study the consumer behaviour in malls during pandemic period and the comparative studies between the two periods, before and during the COVID – 19 pandemic. The present study is aimed on this dimension and also to study the identified factors influence on consumer satisfaction in malls in Bangalore. Further, the significance of the mean differences in factors between the two periods is also studied.

Objective of the study

To analyse the determinants affecting the customer satisfaction in shopping malls, before and during COVID – 19 pandemic and to test the significance of

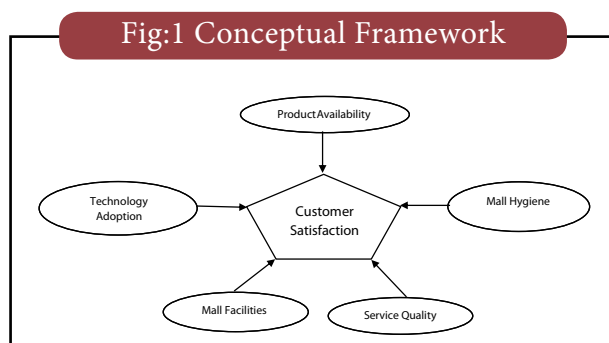
the differences in selected determinants between the two time periods.

Hypothesis:

There is no significant effect of selected factors on customer satisfaction and also the difference is not significant in factors between the two time periods.

Methodology

The present research study 'Factors Influencing Customer Satisfaction in Bangalore Shopping Malls: Before & During COVID – 19 Pandemic' is totally based on primary data collected through both online and offline method. A pre-tested questionnaire was used to collect the required information. The questionnaire was tested for its reliability with the help of Exploratory factor analysis and Confirmatory factor analysis. The customer satisfaction in shopping malls is determined by number of factors. Among these factors, the researcher selected some factors which are assumed to be significantly influenced the consumer satisfaction. To satisfy the objectives, we establish a functional relationship with these selected factors and customer satisfaction.



A Multiple Regression Analysis was adapted to fulfil the objective, where it is suitable to establish the relation. It is possible to test the collective effect of factors on customer satisfaction and also possible to identify each individual factor effect is significant or not. It is identified that the factors which are affecting the customer satisfaction are: Product Availability (PA), Mall Hygiene (MH), Service Quality (SQ), Mall Facilities (MF), Technology Adoption (TA) on Customer Satisfaction (CS). The proposed functional form is

$$CS = f \{PA, MH, SQ, MF, TA\} \text{ ----- 1}$$

The above functional relationship was estimated for both the periods before and during COVID – 19 outbreak situations. The specific equations of above functional form for the two periods are:

$$BCS = \{a_0 + a_1BP + a_2BMH + a_3BSQ + a_4BMF + a_5BTA\} \text{ ----- 2}$$

$$DCS = \{b_0 + b_1DPA + b_2DMH + b_3DSQ + b_4DMF + b_5DTA\} \text{ ----- 3}$$

The collected data was assigned to the above two equations in an appropriate form and the equations are estimated by using Ordinary Least Squares Method. To estimate the regression coefficients and its relevant statistics (Standard Error values, t – values, Value of Multiple relation and F – Values) we adopted SPSS package. The value of multiple correlation coefficient (R²) reveals the collective effect of all independent factors on consumer satisfaction. The significance of R² is identified through F – test statistic.

The t – test statistic is helpful to detect the significance of each independent factor on consumer satisfaction.

It is also proposed to identify the significance of the differences in each of the selected factors in between two periods. Z – test statistic is adapted since the sample is a large sample.

$$|z| = \frac{|x_1 - x_2|}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Where x_1, x_2 are means of factors in two periods.

s_1^2, s_2^2 are variances of factors in two periods.

n_1, n_2 are sample sizes in two periods.

Limitations of the study

The present study is confined to malls in Bangalore city only. The data was collected from shopping mall visitors in the city through pre tested questionnaire in both online and offline modes. The outcomes of the study are not generalized, it may vary from one geographical area to other geographical area. This study was conducted for the period of three months.

Data analysis

I. Exploratory Factor Analysis:

Table: 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.928
Bartlett's Test of Sphericity	Approx. Chi-Square	10527.475
	df	435
	Sig.	.000

The test to check the sample adequacy is Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy statistic. Table 1 presents the KMO and Bartlett's Test results. It is known from the test results that the calculated KMO value of the present study is 0.928 which is > 0.5 denotes that the sample taken for the study is meritorious (Hair et al., 2008). The Sphericity value of Bartlett's Test is significant i.e. < 0.05 indicating that the correlation matrix is significantly different from an identity matrix, in which correlations between variables are all zero. Hence, Factor analysis

is considered as an appropriate technique for further analysis of the data. The Principal Component Analysis extraction method was used to extract the communalities. The extracted values of the factors through the Principal Component Analysis are greater than 0.5. It clearly indicates that the factors considered for the study are relevant. The Eigen Values extracted from the test are greater than one. It clearly indicates that the tested questionnaire is perfectly fit for the study.

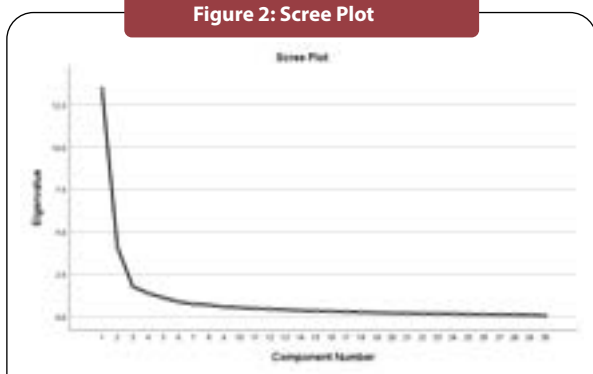
Table: 2 Component Correlation Matrix

Component	1	2	3	4	5
1	1.000	.280	.632	.588	.573
2	.280	1.000	.196	.264	.250
3	.632	.196	1.000	.640	.516
4	.588	.264	.640	1.000	.467
5	.573	.250	.516	.467	1.000

Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.

A correlation matrix was constructed to identify inter-item correlation. If any value of inter – item correlation is greater than 0.75, the concerned factor may be altered. In the present study all the inter – correlated values are less than 0.75. (Table – 2). Hence, the factors considered in the present study are exhibiting the reality.

Figure 2: Scree Plot



The figure - 1 shows the Cattell's Scree plot for factor extraction. It is derived by plotting the Eigen values against the number of factors in their order of extraction and the shape of the resulting curve shows the cut-off point to evaluate the extracted factors.

The adopted talent route (Kaiser's criteria) and Scree test criteria explained that five factors are extracted as ideal.

II. Confirmatory Factor Analysis:

The measurement model was assessed with absolute fit indices like Chi-square/df, Goodness of Fit (GFI), Adjusted Goodness of Fit Indices (AGFI), Normed Fit Indices (NFI), Relative Fit Indices (RFI), Incremental Fit Indices (IFI), Tucker-Lewis Fit Indices (TLI), Comparative Fit Indices (CFI), Root Mean Square Error Approximation (RMSEA).

Table: 3 Model fit measures

Measure	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Estimate	4.704	0.966	0.942	0.912	0.955	0.962	0.988	0.952	0.053
Threshold	1 and 5	> 0.90	> 0.90	> 0.90	> 0.90	> 0.90	> 0.95	> 0.95	< 0.06

The above table shows that all the measures of the construct show a reasonable level of acceptability

and 96.6% (GFI0.966) of the variation was explained by the model (Hair Jr. et al., 2014).

Table: 4 Reliability and Convergent Validity

	Std. Estimate	S.E.	Critical Ratio	P	Construct Reliability	AVE
MF1 <--- M_F	.891					
MF2 <--- M_F	.859	.038	24.135	***		
MF3 <--- M_F	.869	.039	25.078	***		
MF4 <--- M_F	.865	.040	24.855	***	0.956	0.757
MF5 <--- M_F	.873	.039	24.963	***		
MF6 <--- M_F	.894	.037	26.378	***		
MF7 <--- M_F	.838	.041	23.004	***		
SQ1 <--- S_Q	.791					
SQ2 <--- S_Q	.812	.057	16.386	***		
SQ3 <--- S_Q	.797	.060	16.473	***		
SQ4 <--- S_Q	.803	.055	17.578	***	0.905	0.577
SQ5 <--- S_Q	.731	.059	14.664	***		
SQ6 <--- S_Q	.714	.061	13.912	***		
SQ7 <--- S_Q	.658	.057	13.479	***		
PA1 <--- P_A	.833					
PA2 <--- P_A	.878	.049	22.091	***		
PA3 <--- P_A	.836	.053	20.340	***		
PA4 <--- P_A	.815	.050	19.529	***	0.940	0.724
PA5 <--- P_A	.865	.054	21.154	***		
PA6 <--- P_A	.878	.051	21.470	***		
MH1 <--- M_H	.734					
MH2 <--- M_H	.683	.069	13.162	***		
MH3 <--- M_H	.703	.082	13.359	***		
MH4 <--- M_H	.802	.069	15.086	***	0.862	0.510
MH5 <--- M_H	.638	.070	12.077	***		
MH6 <--- M_H	.716	.070	13.274	***		
TA1 <--- T_A	.956					
TA2 <--- T_A	.939	.024	34.518	***	0.835	0.582
TA3 <--- T_A	.410	.042	8.474	***		
TA4 <--- T_A	.604	.041	13.954	***		

From the above table, it is observed that all the indicators are statistically significant, which indicates that they are connected to their particular constructs. The AVE and CR values if greater than 0.5 and 0.7 respectively, then it is deemed that the measurement

model possess the convergent validity. The results of the measurement model reveal that all the factor loadings, AVE and CR values are greater than the standard levels. Hence, it is concluded that the measurement model possesses convergent validity.

Table: 5 Discriminant Validity

	CR	AVE	MSV	T_A	M_F	S_Q	P_A	M_H
T_A	0.835	0.582	0.428	0.763				
M_F	0.956	0.757	0.611	0.654	0.870			
S_Q	0.905	0.577	0.119	0.262	0.345	0.760		
P_A	0.940	0.724	0.624	0.621	0.734	0.257	0.851	
M_H	0.862	0.510	0.504	0.559	0.782	0.341	0.790	0.714

Discriminant validity has been done by the comparison of AVE for each construct with squared inter construct correlations related to that construct. The above table presents the results of the discriminant validity, where all the AVE estimates are more than the squared inter construct correlations. It is clearly evident that average variance extracted (AVE) is greater than the maximum shared squared variance (MSV). So, study data passed through all the conditions like

factor loadings, convergent validity and discriminant validity.

Equations 2 and 3 are estimated by OLS method. The estimated values are shown in table 6 and table 7 for two periods respectively. A step-wise regression analysis was also carried out and the estimated results are shown in the tables below.

XII (a). Before Pandemic:

Table: 6 Estimated Regression Coefficients of Equation – 1

BCS = f (BPA, BMH, BSQ, BMF, BTA)								
Equation	Constant (a0)	Regression Coefficients					R2	F
		BPA (a1)	BMH (a2)	BSQ (a3)	BMF (a4)	BTA (a5)		
I	0.571	0.267* (0.066)	0.209* (0.066)	0.148* (0.066)	0.182* (0.056)	0.136* (0.056)	0.772*	257.372
II	0.618	-	0.357* (0.056)	0.215* (0.065)	0.183* (0.057)	1.180* (0.056)	0.763*	305.433
III	0.612	0.384* (0.056)	-	0.197* (0.064)	0.214* (0.056)	0.144* (0.056)	0.767*	311.855
IV	0.586	0.305* (0.064)	0.244* (0.065)	-	0.227* (0.053)	0.163* (0.055)	0.769*	316.992
V	0.586	0.268* (0.067)	0.247* (0.066)	0.223* (0.062)	-	0.196* (0.053)	0.766*	311.352
VI	0.651	0.299* (0.065)	0.216* (0.066)	0.183* (0.064)	0.228* (0.053)	-	0.769*	316.103

*Significant at 5% probability level

*Figures in the parenthesis are standard errors

From the above table, considering equation I, when all factors are included in the model, it is noticed that the collective effect of all factors on customer satisfaction is observed to be 77.2% since the value of multiple correlation coefficient (R^2) is 0.772. It is also noticed that this collective effect of independent factors on customer satisfaction before COVID – 19 effect is significant at 5% probability level. It is proved by F – test statistic. The coefficient of intercept term is 0.571. It is observed that the estimated regression coefficients of selected independent factors are positive and significant. A positive coefficient is established a positive relationship between the independent factor and customer satisfaction. Therefore, all independent factors, product availability, mall hygiene, service quality, facilities in the mall, technology established a positive relationship with consumer satisfaction in the shopping malls before pandemic period and it is also found that this positive effect is a significant effect. Hence, it is concluded that all the selected independent factors are positively and significantly influencing the customer satisfaction in the shopping malls. It is inferred that the customer is fully satisfied with the shopping mall activities before pandemic.

Step-wise regression equations were estimated by eliminating each variable in each equation by replacing the earlier variable. The factor product availability was eliminated and the regression was estimated with the remaining four factors. The estimated coefficients along with the relevant statistics are shown in equation II. The value of the intercept term is 0.618 while the coefficient of multiple correlation is 0.763. The variation in customer satisfaction by these four factors is observed to be 76.3% and it is a significant variation in satisfaction by these four variables. The elimination of the factor product availability decreases the customer satisfaction by 0.9%. It is observed to be a negligible variation on customer satisfaction. Finally, it is concluded that the elimination of product availability is not influencing much on satisfaction. The customers were satisfied with the available alternate products and also the other factors influencing the customer satisfaction are making the customer satisfied. In the above table, the coefficients of selected four factors were mall hygiene, service quality, facilities and technology are found to be positive and significant. A positive and significant coefficient reveals the positive and significant relationship with customer satisfaction before pandemic period. Hence, it is observed that all four factors are significantly influencing the customer satisfaction in the shopping malls.

In equation III, Hygiene factor was eliminated. The regression was estimated with the remaining four

factors and the coefficients with appropriate statistic are presented in the table-1 above. The estimated coefficients of the remaining four factors after eliminating the hygiene factor established a positive relationship, independently, with customer satisfaction before pandemic period in shopping malls. These positive relationships of the four factors are significant relationships with satisfaction proved by t – test statistic. A unit increase in each of these factors, product availability, service quality, mall facilities and technology will increase the customer satisfaction by 0.384 units, 0.197 units, 0.214 units and 0.144 units respectively. These increases by the factors on satisfaction are significant increases. The value of the intercept term is 0.612. The aggregate effect of these four factors is indicated by the value of multiple correlation coefficient (R^2). Collectively, these four variables in the model shows 76.7% of variation on customer satisfaction in the shopping malls before pandemic period. This combined variation is found to be significant variation on customer satisfaction, proved by F – test statistic. Comparing the collective effects in equation I and equation III, only 0.5% variation was decreased on customer satisfaction. Hence, the elimination of the factor mall hygiene is not showing much variation on customer satisfaction before pandemic. The above result shows that customers were not much focused on mall hygiene before pandemic. The priorities of the customers in the shopping malls were different which are making the hygiene factor less significant.

In the next stage, the **factor service quality was eliminated** and the regression was estimated with the remaining four variables after replacing the factor shopping mall hygiene. The aggregate effect of these four factors are expressed by the multiple relationship. The value of multiple relation is determined as 0.769. These four factors aggregately show 76.9% of variation on customer satisfaction before pandemic. This variation is found to be a significant variation on customer satisfaction. This significance of variation was proved by F – test statistic through ANOVA. Comparing this variation with the aggregate variation in equation I, it is found only 0.3% difference was noticed. This difference in variation was noticed by eliminating the factor service quality. Therefore, the elimination of service quality from the model, the variation on customer satisfaction is negligible. The recorded intercept value is 0.586. The estimated coefficients of four factors are positively and significantly influencing the customer satisfaction before pandemic period. The coefficients established a positive and significant relation with satisfaction since all four estimated coefficients possessing positive sign. The values of estimated coefficients are 0.305, 0.244,

0.227 and 0.163. One can say that a unit increase in each of these four factors will increase the customer satisfaction by 0.305 units, 0.244 units, 0.227 units and 0.163 units respectively. These units of increases by four factors established a significant increase on customer satisfaction. Finally, it is inferred that the variation in customer satisfaction after eliminating the service quality is negligible. The results in equation IV clearly shows that mall facilities and technology dominating the customer satisfaction though the service quality is not in optimum level.

In the next step of step – wise regression equation, the **factor mall facilities is eliminated**, the factor service quality is replaced and the regression was estimated with four factors. The estimated regression coefficients of the four factors with the corresponding standard errors, multiple relation and intercept values are presented in the table - 6 (equation V in the table – 6). Observing the estimates of the coefficients of the factors, it is found that all are positive and significant at five percent probability level. Therefore, a positive and significant relationship between consumer satisfaction and each of the selected independent factors i.e., an increase in each of these factors will increase the customer satisfaction at significant level. The values of the factors estimated coefficients are 0.268, 0.247, 0.223 and 0.196. From these values it is evident that a unit increase in each of these factors will increase the customer satisfaction by 0.268 units, 0.247 units, 0.223 units and 0.196 units of product availability, mall hygiene, service quality and technology respectively. The significance of these coefficient's is tested by t – test. The intercept value is recorded as 0.586. The multiple correlation coefficient was estimated and it is observed to be 0.766. From this value we can say that the collective effect of these variables on satisfaction is 76.7%. By F – test statistic, it is proved that the aggregate effect (76.7%) of these factors on customer satisfaction is significant. It is compared with the variation in equation I, only 0.6% variation was decreased by eliminating the factor shopping mall facilities. This variation (0.6%) is not a countable variation on customer satisfaction. Therefore, the customers are adjusted with the existing facilities in the shopping mall before pandemic period provided the other factors product availability, hygiene, service quality and technology in the malls are significantly satisfying the customers. In case of less facilities present in the shopping mall, product availability, hygiene and service quality factors play a key role in satisfying the customers before pandemic.

In continuation of step-wise regression analysis, the factor technology is eliminated from the model and replaced the mall facilities in equation. The regression

was estimated with four factors. The aggregate effect of these four factors on customer satisfaction before pandemic is expressed by the coefficient of multiple relation. The value of (R²) is 0.769. The aggregate effect of four selected factors on customer satisfaction is observed to be 76.9%. Therefore, 76.9% of variation is recorded on satisfaction by these four factors. This total variation is found to be a significant variation. It is proved by F – test statistic. The elimination of technology factor reveals the decrease in total variation is 0.3% when comparing with the variation in the model with five factors. Hence, it is noticed that the elimination of technology adopted in the shopping malls show a negligible customer satisfaction. Finally, it is concluded that the mall management did not focused much on technology adaption in the shopping mall. Almost a similar trend is observed in case of service quality though the service quality affects the customer satisfaction significantly. The value of the intercept term is 0.651. Comparing the intercept values in the above equation, it is found to be high. Observing the estimated coefficients of four factors after eliminating the technology, all factors are established positive and significant relation with the customer satisfaction in the shopping malls before pandemic. The significant effect of these factors was tested by t – test statistic. A unit increase in each of these four factors, product availability, mall hygiene, service quality and facilities will increase the satisfaction by 0.299 units, 0.216 units, 0.183 units and 0.228 units respectively. These increases by factors on satisfaction are significant increases.

From the above analysis it is observed that almost all selected factors are influencing the customer satisfaction before pandemic. The customers are satisfied with the selected factors. Elimination of each factor may not affect much on aggregate effect on customer satisfaction. These factors collectively established around 77% of variation on customer satisfaction before pandemic period. These aggregate variations are also significant variations on customer satisfaction.

During Pandemic:

A similar estimation pattern of regression equation and step-wise regression equations are used during pandemic period to establish the relationship between customer satisfaction in the shopping malls and other selected five independent factors. Initially, we estimated equation 3 with five independent factors as considered in before pandemic. Later each factor was eliminated from the model and replaced in subsequent model. The values of the estimated coefficients along with the corresponding standard errors, multiple relation, F – values and intercept values are presented systematically in Table – 7 below:

Table: 7 Estimated Regression Coefficients of Equation – 2

DCS = f (DPA, DMH, DSQ, DMF, DTA)								
Equation	Constant (a0)	Regression Coefficients					R ²	F
		DPA (a1)	DMH (a2)	DSQ (a3)	DMF (a4)	DTA (a5)		
I	0.525	0.131* (0.059)	0.240* (0.057)	-0.097 (0.062)	0.158* (0.069)	0.387* (0.071)	0.680*	160.978
II	0.552	-	0.309* (0.047)	-0.064 (0.060)	0.158* (0.069)	0.408* (0.070)	0.676*	197.984
III	0.604	0.271* (0.051)	-	-0.058 (0.062)	0.173* (0.070)	0.393* (0.072)	0.665*	188.388
IV	0.537	0.109 (0.058)	0.227* (0.056)	-	0.124 (0.065)	0.358* (0.068)	0.678*	199.848
V	0.582	0.131* (0.060)	0.246* (0.057)	-0.051 (0.059)	-	0.490* (0.055)	0.675*	197.628
VI	0.646	0.175* (0.061)	0.246* (0.059)	-0.009 (0.062)	0.396* (0.055)	-	0.655*	180.041

*Significant at 5% probability level

*Figures in the parenthesis are standard errors

From the estimated regression coefficients of equation 3, in the above table – 7 (equation I), it is observed that an insignificant negative relation was noticed by the factor service quality with customer satisfaction during pandemic period. Since the estimated coefficient value of service quality is -0.097, therefore, the customer is not satisfied with the service quality in the shopping malls during pandemic. The coefficients of product availability, hygiene, facilities and technology are observed to be positive and significant at five percent probability level. The values of the coefficients of the factors are 0.131, 0.240, 0.158 and 0.387. A significant increase in customer satisfaction is observed by an increase in each of these four factors. A unit increase in each of the factors will increase the satisfaction by 0.131 units, 0.24 units, 0.158 units and 0.387 units respectively. The value of intercept term is 0.525. The value of (R²) is 0.68. Therefore, the aggregate effect of five variables on customer satisfaction is 68%. This aggregate variation in satisfaction is a significant variation, tested by F – test statistic.

In step-wise regression estimation, initially we eliminated the factor product availability and the equation was estimated with remaining four factors. The estimated values are shown in the table- 7 (equation II). The intercept value is found to be 0.552. The value of multiple relation is noticed as 0.676. It expresses the total effect of four factors on customer satisfaction. The collective effect of factors on customer

satisfaction during pandemic is recorded as 67.6%. This variation in satisfaction is a significant variation observed by 'F' value. The exclusion of product availability factor from the model did not show much decrease (-0.4%) in customer satisfaction. The customer satisfaction is not much affected though the exclusion of product availability from the model. Hence, it is inferred that the customer is satisfied with the remaining factors and the alternate product though the desired product is not available. The coefficient of service quality is negative. A negative relation was established between service quality and customer satisfaction. This negative relation was only 6.4%. This negative relation is not a significant relation. The coefficients hygiene, facilities and technology are positive and significant (0.309, 0.158 and 0.408 respectively). These positive coefficients reveal the positive relationship with customer satisfaction in the shopping mall during pandemic period. A unit increase in each of these three variable will increase the customer satisfaction by 0.309 units, 0.158 units and 0.408 units respectively. Therefore, the customer is positively and significantly influenced by these three variables.

Later, the factor mall hygiene was eliminated and the factor product availability is incorporated in the model. The equation was estimated with four factors and the corresponding statistical values are exhibited in above table- 7 (equation III). The aggregate effect of these four factors is found to be 66.5%. Therefore,

the variation in customer satisfaction, collectively by these factors is 66.5% and this variation is found to be significant variation. It is proved by F – test statistic. The elimination of factor mall hygiene will decrease the total variation in satisfaction by 1.5% while comparing with the initial equation (68% variation). The customer satisfaction during pandemic is not much affected by the elimination of mall hygiene factor. Therefore, the customer is satisfied with the remaining four factors though the mall hygiene is not improved during pandemic. The intercept value is found to be 0.604. The coefficient of service quality is observed to be negative (-0.058) and insignificant. An insignificant negative relation was noticed by these service qualities with satisfaction. The estimated values of product availability, mall facilities and technology adaption are positive. A positive coefficient establishes a positive relation with customer satisfaction during pandemic. A unit increase in each of these three variables will increase the customer satisfaction by 0.271 units, 0.173 units and 0.393 units respectively. This increase on satisfaction is a significant increase by these three factors. The customer satisfaction during pandemic is significantly affected by the factors, product availability, mall facilities and technology though the effect of service quality is negative and hygiene was eliminated. Finally, it is concluded that the customer did not consider low level of mall hygiene and service quality over satisfaction level during pandemic period.

The factor service quality was eliminated from the model and mall hygiene variable is added to the model. The regression equation with four factors product availability, mall hygiene, facilities and technology were estimated and the coefficients along with corresponding standard errors and multiple determination was presented in table - 7 (equation IV). The estimated regression coefficients establish a positive relationship with customer satisfaction but it is significant in case of two factors technology and mall hygiene. These two factors expressed 58.5% of variation on customer satisfaction. The remaining two factors product availability and facilities are not shown significant effect on customer satisfaction. The value of intercept term is 0.537. The value of (R²) is determined as 0.678. Therefore 67.8% of variation on customer satisfaction was recorded by these four factors aggregately. This aggregate variation is found to be a significant variation on customer satisfaction. Observing the variations of equation, I and equation IV, it is noticed that the elimination of service quality factor will decrease the total variation by 0.2% only. It is negligible variation on customer satisfaction. The effect of service quality on customer satisfaction is almost nil. It is concluded that the two factors mall

hygiene and technology are the major determinants of customer satisfaction in the shopping mall during pandemic period. The exclusion of service quality is not influencing the customer satisfaction.

In equation V of step-wise regression, the factor 'mall facilities' is eliminated and the factor service quality is added to the model. The multiple linear regression equation was estimated with four factors other than mall facilities. The estimated regression coefficients and multiple determination are given in the table – 7. From the estimates of equation V, the product availability, hygiene and technology established a positive relationship with customer satisfaction in the shopping mall during pandemic period. Hence, these three factors are the major determinants of customer satisfaction. The coefficients of these three factors are 0.131, 0.246 and 0.490. A unit increase in each of these factors will increase the satisfaction by 0.131 units, 0.246 units and 0.49 units respectively. These increases are significant increases in customer satisfaction. It is inferred that the major determinants of customer satisfaction are product availability, hygiene and technology during pandemic period. The value of intercept term is 0.582. The negative coefficient of service quality factor expresses a negative relationship between satisfaction and service quality but this negative relation is not a significant relation. The combined effect of these four factors on customer satisfaction is noticed by multiple determination (Value of R²) which is 0.675. Therefore 67.5% of variation on customer satisfaction was recorded by these four factors. This variation is observed to be a significant variation, proved by F – test. Comparing the variations in equations I and equation V, only 0.5% variation was decreased on customer satisfaction by elimination of mall facilities. This variation is a negligible variation. Finally, the exclusion of mall facilities may not affect the customer satisfaction during pandemic. It is concluded that the customer is satisfied with the factor's product availability, mall hygiene and technology significantly during the pandemic period.

In the last step of step-wise regression equation, we excluded the factor technology adoption and replaced with the factor mall facilities. The equation was estimated by OLS method and the results are shown in table – 7 (equation VI). The value of intercept term is 0.646. The aggregate effect of four independent factors on customer satisfaction during pandemic is determined as 65.5% since the multiple determination is 0.655. From F – test statistic, this multiple relation is identified as a significant relation. A negative relationship was noticed by the factor service quality with customer satisfaction during pandemic period. It reveals the service quality in the mall is not optimum. The other three factors product availability,

mall hygiene and mall facilities are established a positive and significant relationship with customer satisfaction in the mall. The estimated parameters of three factors are 0.175, 0.246 and 0.396. It is identified that these factors are the major determinants of customer satisfaction when technology was eliminated. For every unit increase in each of these factors will increase the satisfaction by 0.175 units, 0.246 units and 0.396 units respectively.

From the above analysis related to customer satisfaction in the shopping malls during pandemic, only the factor service quality is not influencing the customer satisfaction positively but almost all the selected factors in the mall enhanced the customer satisfaction in the mall during pandemic. Particularly, the technology

adoption, mall facilities and mall hygiene impressed the customers and leading to repetitive visits.

Mean Differences of Shopping Mall Activities:

The other phase of our objective is to determine the significance of differences in mean of the shopping mall activities between the two periods before and during pandemic. To examine the significance of the differences, the researcher calculated means of each mall activities in two periods, differences between the means of the activities, corresponding standard deviations along with z- test statistic. These values are presented in the table – 8 systematically.

From the results shown in table – 8 it is observed that the mean differences in all mall activities except service quality are significant at five percent probability

Table: 8 Testing of Mean Differences in Shopping Mall Activities

Shopping Mall Activities (1)	Means		Mean of Differences (4)	Standard Deviation (5)	Z – value (6)
	Before (2)	During (3)			
Technology Adopted	5.6688	5.9532	0.2844	1.0226	3.4146*
Mall Facilities	5.6255	6.0385	0.4129	1.0759	4.8117*
Service quality	5.7591	5.5944	0.1647	1.0687	1.9302
Mall Hygiene	5.9385	4.6779	1.2606	1.0946	15.8248*
Product availability	5.8834	5.0230	0.8604	1.0827	10.5668*
Customer satisfaction	6.0280	5.0233	1.0046	1.2120	12.6302*

*Significant at 5% probability level

level. Therefore, it is clearly visible that some drastic changes were taken place in shopping mall activities due to COVID – 19 effect between the two time periods before and during pandemic. Hence, it is concluded that a significant COVID – 19 effect was observed in shopping malls in Bangalore city.

Conclusion

The customer satisfaction before pandemic is depending on five major factors. They are product availability, hygiene, service quality, facilities and technology. When we established the relation between customer satisfaction and the selected shopping mall activities, it is observed that all activities positively and significantly influenced the customer satisfaction. Therefore, customer satisfaction is depending on these factors significantly. More than seventy

seven percent of variation in customer satisfaction is recorded by these factors. It is a significant variation. In step-wise regression analysis, it is noticed that the exclusion of each mall activity affects the customer satisfaction negligibly. In step-wise regression analysis it is noticed that a small decrease in total variation was recorded by eliminating each mall activity each time. Finally, it is inferred that before pandemic period the selected five shopping mall activities satisfying the customer in the shopping mall was significant. These activities influence the satisfaction by around 76%. During pandemic period also similar type of relationship was established between satisfaction and selected mall activities. It is observed that the selected factors affect the customer satisfaction collectively by 68%. Comparing this variation with before pandemic period the customer satisfaction was decreased during pandemic since the service

quality activity established negative impact on customer satisfaction. It reveals that the service quality is not up to the expectation of customer satisfaction. In step-wise regression analysis also the similar trend was recorded with service quality activity. The product availability and facilities activities show a little adverse effect on customer satisfaction when service quality was excluded. In case of testing the differences in mean shopping mall activities, the study expressed that there is a significant difference in mean mall activities between the two periods. It is also noticed that the mean difference in case of service quality is not significant though there is a little difference.

Scope for Further Research:

Similar study can be done to compare the consumer satisfaction before and during pandemic in shopping malls in other major cities like Mumbai, Delhi, Chennai, Hyderabad etc., where COVID – 19 outbreaks had showed the severe effect. Some other factors which are not included in the present study may influence customer satisfaction. The researchers may identify those factors which enhance the customer satisfaction in the shopping malls. Similar study with other factors of customer satisfaction can be measured in Discount stores, hyper marts etc.

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Impact of Branding on Rural Educated Youth Choice of Clothing Buying Behaviour: with Special Reference to Belagavi Sub District Ramdurg, Karnataka, India

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Abstract

This paper investigates the relationship among components which impact consumer's buying behaviour for garments/ Clothing products in Ramdurg Rural area. To do so questionnaire were distributed to respondents who living in Ramdurg location and are regular garment buyers. The researcher chosen 60 respondent by using non-probability quota sampling were used, from the study are three villages are chosen namely Turnur, Rankaloppa and Halgatti from each villages 20 respondent were randomly selected. The collected data analyzed with correlation, Regression and descriptive statistics have been used to present the data set and also adopted statistical tools. Correlation model used with relation to objective one and regression model used to test the hypothesis of the study and with relationship to remaining objectives, to test this SPSS were used. Youth buy branded clothes in a years 1 to 2 times rural and branded cloths they buy 23.3 percent where as 58 percent of the respondents buy 3 to 4 times, 51.7 percent youth prefers to buy branded cloths with their friends, 48.3 percent are buying brands clothes in their local stores, 23.3 percent respondents says branded clothes are value for money and 45 percent says branded clothes are symbol status. There is a significant relationship between quality and impact on rural educated youth choice of clothing buying behaviour and advertisements and price does not have impact.

Key words: Advertisement, Price, Quality and Branded Clothing, Buying behaviour.

Introduction

To stay serious and beneficial in present marketplace, the clothing business should keep on growing its capacity to react to the necessities and needs of customers. Since most recent couple of years. The clothing market has seen significant exchange concerning clothing pattern, fashion, use of branded products and choice of clothing and awareness of current fashion. The Indian textile industries is an area which has made work in large scope and it remains next simply to agribusiness by using work to around 15 million people across the nation, Simply as metropolitan areas. Retail in India has raised the third most apparel business sector objective for apparel retailers, as per a study by one of the service counseling. Is the second biggest retail classification, speaking to ten percentage of the US \$ 37 billion global retail marketplace. World's largest producer of textile and apparels, domestic apparel and textile contribute 2percent to the GDP of India and 12 percent of country's exporting. Apparel industry is the second largest employment generating industry in India around 45 million people. India has also become second largest manufacture of PPE in the world. Fashion industry has reached

the Manufacturers to be had on the right area on the proper time. On one hand, in fabric area excessive homegrown utilization will hurl massive commercial enterprise opportunities, will offer a risk to exporters to make up for the inability, if they are able to have what it takes and fit the assumptions for the purchaser, With this ability, India will display up as a desired region for hobby in cloth and apparel regions, each with the aid of Indian and global groups, the record. The garb and style industry being placed at ahead of all comers and moreover the spending on apparel lots among the patron have become increased, considering these focuses it is exceptionally important to contemplate the changing buying behaviour of the customers. The primary motivation in the back of this examine is to construct the awareness of clothing buying behaviour of Indian buyers and from a proper angle settlement elements which effect garb buying behaviour supply good sized data to clothing shops trying to normalize or alter their technique for the customers.

Consumer buying behaviour is the investigation of human beings and the methods how use to pick, co-zy, use, and discard objects, services, experience, with

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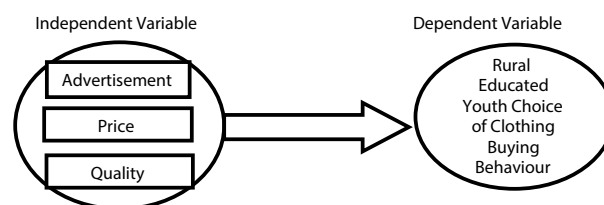
a view to fulfill wishes and the outcomes that these system have at the consumer. Consumer buying behaviour is gradually part of strategic planning for the upcoming funding and development of any industry. Retail industry or explicitly to country clothing enterprise isn't any special case, Consumers can either be summary or objective, checking out the persuasion of brand names. Retail places selling the objects in addition to anticipate a enormous component in convincing the choices of client. The complete level or graphical appeal of the retail outlet can decide sale, or the help of the salesman or the clerk Furthermore, consumers might also select unique objects/brands no longer just in mild of the fact that those products deliver the beneficial or execution pay backs projected, yet moreover in mild of the fact that products can be utilized to speak clients' individual, societal function or association or to fulfill their inward intellectual requirements, as an example, the requirement for alternate or newness. Consumer buying behaviour signifies to the enthusiastic and mental cycle and the detectable buying behaviour at some stage in search of products, buying cycle and submits utilization of products services. Consumer behaviour carries investigation of how individuals purchase, what they buy, when they purchase and why they buy. It consolidations the additives from Psychology, Sociology, Socio psychology, Anthropology and Economics.

Literature Review

According to Prasana Rosaline Fernandez (2009) youth prefers branded clothing breaking away their norms of their childhood and established their own identity. Brand pays key role in youth's minds and gives high expectation and success. Youth are growing up in brand conscious and media aware then their parents. Youth do not like misguidance by the marketers. Youths are more media savvy in choosing messages. Branded clothing company to act ethically, need to leave on youths own understanding and decide on their own. Syed Irfan Shafi and C. Madhavaiah (2014) Study revealed that group reference main factors for branded apparel buying as well as store, product, and product promotions. And advertisements to be done in a manner that it reach out the buyers. Clothing Store must come up with concerning to the advertisements and promotions to their reference group and store attribute so that the buyer attract to their services and products what they offers. Sheeba Rusiga (2016) Consumer buy branded products compare to unbranded one, e-commerce have grown in recent years, fashion industries have enormous. Branded products are having better standing then generic one. Private label brands have become more popular one. Baseer Ali Durrani (2015) concluded that teenager behaviour influence and correlated by advertisements, brand image and brand loyalty.

Business organization needs to focus on teenager advertisements because teenager is more influence by advertisements. Emine koca and Fatma koc (2016) Clothing purchase influences mostly on factors such as economic situation, Status and quality assurances and followed by family, friends, cultural and reference groups. Fashion clothing is expensive but also stands out in the crowed and unique. In men and women, women purchase the more clothing also revealed women influenced by fashion and men by brand name. K.Maran, Badrinarayana and T Praveen Kumar (2017) revealed income and purchase pattern influence on branded apparel products. Design, Style Quality, color, comfort and price has influencing factors. Expectation and satisfaction of branded apparels have positive influences. Suggest that brands must fulfill the costumers' requirements as per their needs and process accordingly. Afrose Fathima Farid (2016) revealed online shopping growing with respect to fashion industry, traditional store still popular. Many of them buy online for the ease of buying and availability cards for the payments played huge role in buying online apparel products. Brands offers specially discount day to day and on special occasion attract buyers more. Casual wear are preferred one because the price range and perfect fitting. Sheena Gupta and Sougata Banerjee (2019) branded retails are growing in India at pace, Brand organization need to keep in mind in India to offers the products as per their Indian taste and demand. India is parenting branded clothing retails day by day. Branded retails must understand of Indian customers mind set. Rural consumer is different than the urban consumer and in Belagavi rural sub district Ramdurg is very different from the urban cities. Increased popularity and unimproved infrastructure are the major problem in the study is as well as low income, literacy and quality of life style differ from the cities. This all leads to motivate to study the how consumer behave and prefer branded clothing in the study, researcher found the gap to know whether the rural study area consumers do have the influence on Price, advertisements and quality or not, and this kind research in this area is new and unique.

RESEARCH FRAMEWORK:



Sources: Author's own constructed diagram

Conceptual Framework: To finds out the impact of Advertisement, Price of the clothing brand, and Quality of the product, Researcher have built frame

work with two variable Independent variable dependent variable , where Independent variables are Advertisement, Price and Quality which is whether its impacts on Rural consumer buying behaviour or not as taken this variable as Dependent.

Objectives

- To know the relationship between Advertisement, Prices, Quality and rural educated youth choice of clothing buying behaviour.
- To find out the impact of advertisements on rural educated youth choice of clothing buying behaviour.
- To know the impact of price on rural educated youth choice of clothing buying behaviour.
- To find out the impact of quality on rural educated youth choice of clothing buying behaviour.

Hypothesis

H01: There is no significance relationship between advertisements and rural educated youth choice of clothing buying behaviour.

Ha1: There is a significant relationship between advertisements and rural educated youth choice of clothing buying behaviour.

H02: There is no significant relationship between price and rural educated youth choice of clothing buying behaviour.

Ha2: There is a significant relationship between price and rural educated youth choice of clothing buying behaviour.

H03: There is no significance relationship between quality and rural educated youth choice of clothing buying behaviour.

Ha3: There is significant relationship between quality and rural educated youth choice of clothing buying behaviour.

H04: There is no impact of advertisements on rural educated youth choice of clothing buying behaviour.

Ha4: There is significant impact of advertisements on rural educated youth choice of clothing buying behaviour.

H05: There is significant impact of prices on rural educated youth choice of clothing buying behaviour.

Ha5: There is no significant impact of prices on rural educated youth choice of clothing buying behaviour.

H06: There is no significant impact of quality on rural educated youth choice of clothing buying behaviour.

Ha6: There is a significant impact of quality on rural educated youth choice of clothing buying behaviour.

Tools for Analysis

The collected data analyzed with correlation, Regression and descriptive statistics have been used to present the data set wherever it's necessary and also adopted statistical technique for data evaluation. Correlation model used with relation to objective one and regression model used to investigate the hypothesis of the study and with relationship to remaining objectives.

Limitations of the Study

This study is limited to the particular region (small part of the Karnataka) Ramdurg Taluka is Belagavi sub district and data also collected from the same region hence the finding of the study can not compare with other region, This study is micro level in nature.

Methodology

For analyses and interpretation of clothing choice of the respondent suitable methodology is pre requirements i.e. Multiple Regression Analysis and Correlation methods were used to know the impact and relations between two variables. The Primary data is collected from questionnaire and secondary data obtain from the various journals, books and records. Non-Probability Quota sampling is used, the respondents are located in Ramdurg Taluka Belagavi district Karnataka. The sampling unit is limited to Ramdurg Taluka rural area. The researcher chosen 60 respondent from the study are three villages are chosen as quota namely Turnur, Rankaloppa and Halgatti from each villages 35 respondent were circulated questionnaire where appropriate and full respond units were 20 selected from the each village. Thus total of 60 respondent were selected using Non-Probability Quota sampling technique for the data collection for the require information.

Data Analysis and Interpretation

Reliability Test

Table 1: Result of the Reliability Test

Reliability statistics	
Cronbach's Alpha	N of Items
.716	20

Sources: Researcher's survey findings (2021)

Table 1: To check the reliability of the questionnaire researcher has used Cronbach's Alpha methods. The Cronbach's Alpha over value is 0.716. The questionnaire said to be reliable as the value is 0.716 it is good and reliable for the study. Rule of Thumb for Results: The preferred rule of thumb is that a Cronbach's alpha

of 0.70 and above is right. 0.80 And above is better, 0.90 and above is exceptional and best. Researcher's end result is 0.716 there for its miles taken into consideration as "Good"

Table 2: Characteristics of the respondents

SL No	Respondents	n	Percentage
1	Gender	60	100
	Male	31	51.7
	Female	29	48.3
2	Age	60	100
	16-17	3	5.0
	18-19	27	45.0
	20-21	22	36.7
	22-23	4	6.7
	24-24.5	4	6.7
3	Education	60	100
	Up to 11	4	6.7
	2nd PUC	3	5.0
	Professional Course	5	8.3
	Degree	48	80.0
4	Occupation	60	100
	Students	49	81.7
	Employees	2	3.3
	Farmers	3	5.0
	Professionals	3	5.0
	Self employed	3	5.0

Sources: Researcher's survey findings (2021)

Gender: out of 60 respondent 51.7percent percent are male and 48.3percent are female both male and female are used for in the data collection as male and female are considering variable for the studying the behaviour, both the gender plays important rule for buying brands in the study area. But researcher just not considers this only parameter.

Age: 16-17 are 5percent in the total 60 respondents 45percent are the 18-19, 36.7 percent are age between 20-21, and 22-23, and 24-24.5 are 6.7 percent respectively. On an average 20-23 age group are average age group and this has more in the numbers of data set.

Education: 80percent of the respondents falls under degree (Graduation) it shows the data set of the study has well educated in the study area, up to 11 class of education are 6.7percent, 2nd PUC (10+2) respondents are 5percent and 8.3 percent are the professional course studying respondents.

Occupation: occupation of the respondents in the study area. 81.7percent of the respondents are students as in the youth age category in educated usually respondents will be the students only 3.3.percent of the respondents are employees who is working either in Govt or private sectors, Famers, Professional and Business owners are 5percent respectively.

Table 3: How frequently youth buys branded clothes in a year?

		Freq uency	%	Valid Percent	Cumulative Percent
Valid	1 to 2 Times	14	23.3	23.3	23.3
	3 to 4 Times	35	58.3	58.3	81.7
	5 to 8 Times	3	5.0	5.0	86.7
	Above 9 Times	8	13.3	13.3	100.0
	Total	60	100.0	100.0	

Sources: Researcher's survey findings (2021)

Table 3 showing how frequently does youth buy branded clothes in a year. 1 to 2 times rural consumers buy branded cloths 23.3 percent where as 58 percent of the respondents buy 3 to 4 times branded clothes in a year, 5percent buy 5 to 8 times and above 9 times 13.3 percent. From the above results on an average 2-3 times 81.6percent out of 100 percent, clothing industry has 4 seasons in a year. It means that 58 percent of the rural educated youth buys the branded cloths in the study area is three to four times in years minimum 3 to 4 months they buy branded cloths it indicate that there have a good potential for the brands and have good brand conscious.

Table 4: With who rural youths prefers to buy branded clothes?

		Freq uency	%	Valid Percent	Cumulative Percent
Valid	Friends	31	51.7	51.7	51.7
	Parents	25	41.7	41.7	93.3
	Siblings	3	5.0	5.0	98.3
	Alone	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

Sources: Researcher's survey findings (2021)

Table 4 shows with whom rural youths prefers to buy branded clothes 51.7 percent youth prefers to buy

branded cloths with their friends, and 41.7 percent prefers to buy with parents, remain 5 percent goes with siblings and 1.7 percent go alone. Rural youth buying habit preference of buying the cloths are more with their Family and Friends as 51.7 percent is with friends they buy and 41.7 percent they buy with their parents, the buying influence factors are friends and family of the rural youth buying consumers.

Table 5: Favorite brands from the below brands

		Freq uency	%	Valid Percent	Cumulative Percent
Valid	Local Store	29	48.3	48.3	48.3
	Peter England	5	8.3	8.3	56.7
	Raymond's	22	36.7	36.7	93.3
	Levi's	4	6.7	6.7	100.0
	Total	60	100.0	100.0	

Sources: Researcher's survey findings (2021)

Table 5 presents that 48.3 percent are buying brands a clothes in their local stores, 36.7percent respondents buys in Raymond's brand, 8.3percent buys peter England and 6.7 percent buys Levi's. As we are keen to the impact of branding of the rural consumers researcher have asked the respondents about their favorite brand 48.3 percent said they buys in

their local store and they believe that their local store as brand for them has they consider local store is the brand whatever he keeps are as branded products in his shop so they relay on them, and 36.7 percent said they think their favorite brand is Raymond's as this

Table 6: What does brand means to rural consumers.

		Freq uency	%	Valid Percent	Cumulative Percent
Valid	Waste of money	10	16.7	16.7	16.7
	Show off	9	15.0	15.0	31.7
	Value for money	14	23.3	23.3	55.0
	Symbol Status	27	45.0	45.0	100.0
	Total	60	100.0	100.0	

Sources: Researcher's survey findings (2021)

brands presence is good at Indian rural market and as in study are too.

Table 6 shows 16.7 percent says branded clothes are waste of money, 15percent says show off and 23.3 percent respondents says branded clothes are value for money and 45 percent says branded clothes are symbol status it indicate that rural educated youths are brands conscious and their brand preference is

Table 7: Correlation between Consumer buying behaviour and Advertisements, Price and Quality

Correlations					
		Consumer Buying Behaviour	Advertisemetnt	Price	Quality
Consumer Buying Behaviour	Pearson Correlation	1	.066	.114	.281*
	Sig. (2-tailed)		.619	.388	.030
	N	60	60	60	60
Advertisement	Pearson Correlation	.066	1	.250	.312*
	Sig. (2-tailed)	.619		.054	.015
	N	60	60	60	60
Price	Pearson Correlation	.114	.250	1	.680**
	Sig. (2-tailed)	.388	.054		.000
	N	60	60	60	60
Quality	Pearson Correlation	.281*	.312*	.680**	1
	Sig. (2-tailed)	.030	.015	.000	
	N	60	60	60	60

*. Correlation is sig at the huge on the zero.05 level (2-tailed).

**. Correlation is sizable at the 0.01 degree (2-tailed).

Sources: Researcher's survey findings (2021)

high at rural area, Most of the rural consumers are prefer product on based value for money products here educated youth too feel that brands are value for money products it means their preference towards brands are positive.

Table 7 shows the correlation dependent variable is buying behaviour of choice of clothing and independent variables are Advertisements, Price and Quality.

Hypothesis # 1:

H01: There is no significant relationship between advertisement and rural educated youth choice of clothing buying behaviour.

Ha1: There is a significant relationship between advertisement and rural educated youth choice of clothing buying behaviour.

1) Result: There is no significant relationship between advertisement and rural educated youth choice of clothing buying behaviour as significant value is 0.066 which is greater than 0.05 level of significant hence we accept the null hypothesis

Hypothesis # 2:

H02: There is no significant relationship between prices on rural educated youth choice of clothing buying behaviour.

Ha2: There is a significant relationship between of prices on rural educated youth choice of clothing buying behaviour.

2) Result: There is no significant relationship between price and rural educated youth choice of clothing buying behaviour as significant value is 0.388 which is greater than 0.05 level of significant hence we accept the null hypothesis.

Hypothesis # 3:

H03: There is a significant relationship between quality and rural educated youth choice of clothing buying behaviour.

Ha3: There is a significant relationship between quality and rural educated youth choice of clothing buying behaviour.

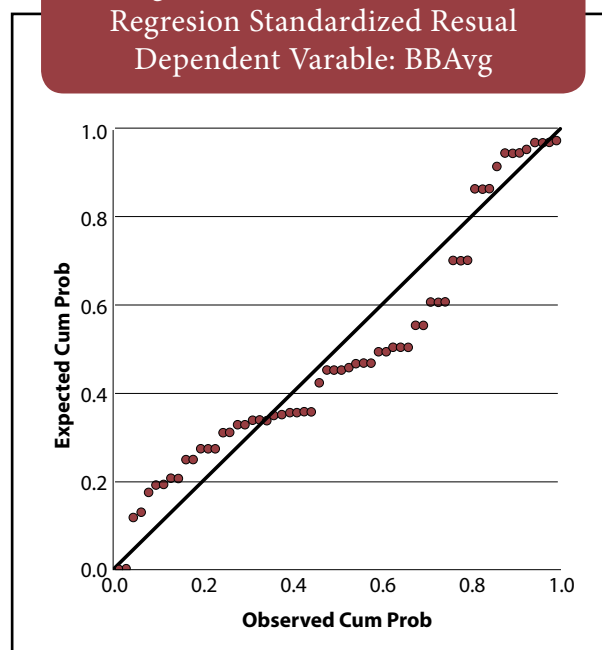
3) Result: There is a significant relationship between quality and rural educated youth choice of clothing buying behaviour as significant value is 0.030 which is less than 0.05 level of significant hence we reject the null hypothesis.

Regression: Multiple Regressions Analysis

Multiple Regression Analysis has done using multi regression method by using statistical tool name called SPSS. Buying behaviour of choice of clothing

is dependent variable and Advertisements, Price and quality are independent variables.

Figure: 1 Normal P-P Plot of Regression Standardized Residual
Dependent Variable: BBAvg



Sources: Researcher's survey findings (2021)

P-P Plot (Probability-Probability plot) for assessing how closely two data set agree which plot the two cumulative distribution fractions against each other and check the data is normally data is distributed or not. Agung and Anita (2019).

Table 8: Model Summary

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.300a	.090	.041	2.33271

a. Predictors: (Constant), Quality, Advertisement, Price

b. Dependent Variable: Consumer Buying Behaviour choice of branded clothes

Sources: Researcher's survey findings (2021)

The table 8 indicates the R-Value, which represents the correlation among the observed and predicted values for the dependent variable; R-Square is called the coefficient of determination and gives the adequacy of the model. In this value of R-Square is 0.041 it means the independent variable in the version can are expecting 4.1 percent of the variance in based variable. Adjusted R Square suggests the accuracy of the model fitness if one can modify the model by own.

Table 9 : ANOVA

Table 9 : ANOVA						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	30.207	3	10.069	1.850	.149b
	Residual	304.727	56	5.442		
	Total	334.933	59			

a. Dependent Variable: Consumer Buying Behaviour

b. Predictors: (Constant), Advertisement, Price and Quality

Sources: *Researcher's survey findings (2021)*

Table 9 in first row call regression offers the variability inside the model because of realize the cause and within the 2nd row call residual indicates variability because of random error or unknown cause value this situation is 1.850 and the p-cost proven by 0.149 which is more than 0.05 there for we will say that independent variable Advertisement, Price and Quality have no significant effect on the dependent variable consumer buying behaviour of choice branded clothes.

The Coefficients table shows the regression consistent (Y intercepts) and coefficient and their

Table 10: Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.205	2.193		6.021	.000
	Advertisements	-.013	.095	-.018	-.137	.892
	Price	-.146	.179	-.142	-.818	.417
	Quality	.242	.112	.383	2.160	.035

Sources: *Researcher's survey findings (2021)*

significance, regression measure how firmly (If it is Positive then sure connection assuming it's negative, its negative relationship) the independent variable predicts the dependent variable and that shows the solid relationship between independent variable and dependent variable.

Hypothesis # 4:

H01: There is no significant impact of advertisements on rural educated youth choice of clothing buying behaviour.

Ha1: There is a significant impact of advertisements on rural educated youth choice of clothing buying behaviour.

4) Result: Table 7 showing the result of ANOVA analysis. F-value is 0.250 and the p-value is 0.619 which is greater than 0.05(95percent of confidence Level) hence Null hypothesis is accepted there for advertisements does not impact on rural educated youth choice of clothing buying behaviour.

Hypothesis # 5:

H05: There is no significant impact of prices on rural

educated youth choice of clothing buying behaviour.

Ha5: There is a significant impact of prices on rural educated youth choice of clothing buying behaviour.

5) Result: Table 7 showing the result of ANOVA analysis. F-value is 0.758 and the p-value is 0.388 which is greater than 0.05 (95percent of confidence Level) hence Null hypotheses is accepted there for price does not impact on rural educated youth choice of clothing buying behaviour.

Hypothesis # 6:

H06: There is a significant impact of quality on rural educated youth choice of clothing buying behaviour.

Ha6: There is a significant impact of quality on rural educated youth choice of clothing buying behaviour.

6) Result: Table 7 showing the result of ANOVA analysis. F-value is 4.959 and the p-value is 0.030 which is greater than 0.05 (95percent of confidence Level) hence Null hypotheses is rejected there for quality does impact on rural educated youth choice of clothing buying behaviour.

Conclusion

There is no significant relationship between advertisement and rural consumer buying behaviour of choice of branded cloths, There may be no significant courting between price and rural consumer buying behaviour of choice of branded cloths, there is no significant relationship between quality and rural buying behaviour of choice of branded cloths, advertisements does not impact on rural consumer buying behaviour of choice of branded clothes, price does not impact on rural consumer buying behaviour of choice of branded clothes, quality does impact on rural consumer buying behaviour of choice of branded clothes. Youth buy branded clothes in a year. 1 to 2 times rural consumers buy branded cloths 23.3 percent where as 58 percent of the respondents buy 3 to 4 times, rural youths prefers to buy branded clothes 51.7 percent youth prefers to buy branded cloths with their friends, 48.3 percent are buying brands clothes in their local stores, 23.3 percent respondents says branded clothes are value for money and 45 percent says branded clothes are symbol status. advertisements does not impact on rural educated youth choice of clothing buying behaviour, price does not impact on rural educated youth choice of clothing buying behaviour, quality does impact on rural educated youth choice of clothing buying behaviour. No significant relationship between advertisement and rural educated youth choice of clothing buying behaviour, No significant relationship between price and rural educated youth choice of clothing buying behaviour. There is a significant relationship between quality and rural educated youth choice of clothing buying behaviour. 58 percent of the rural educated youth buys the branded cloths in the study area is three to four times in years minimum 3 to 4 months they buy branded cloths it indicate that there have a good potential for the brands and have good brand conscious. Rural youth buying habit preference of buying the cloths are more with their Family and Friends as 51.7 percent is with friends they buy and 41.7 percent they buy with their parents, the buying influence factors are friends and family of the rural youth buying consumers. As we are keen to the impact of branding of the rural consumers researcher have asked the respondents about their favorite brand 48.3 percent said they buys in their local store and they believe that their local store as brand for them has they consider local store is the brand whatever he keeps are as branded products in his shop so they rely on them, and 36.7 percent said they think their favorite brand is Raymond's as this brands presence is good at Indian rural market and as in study are too. branded clothes are symbol status it indicate that rural educated youths are brands conscious and their brand preference is high at rural area, Most of

the rural consumers are prefer product on based value for money products here educated youth too feel that brands are value for money products it means their preference towards brands are positive.

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An Empirical Study of Measurements on Customer Satisfaction Towards Order Processing Food Delivery Apps in Smart Mobiles at Bengaluru City

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Abstract

Food delivery apps is a new business unit in the e-commerce division. It can bridges the gaps between customer and food restaurants. Customer will search restaurant and order processing food delivery Apps in smart mobiles. Food delivery in smart mobiles Apps is one of the fastest growing market segments in India and food delivery apps allow customers to order from a wide variety of establishments with a single tap on a mobile phone. Smart mobile apps have made our lives so much easier. The purpose of this study is to analyze the best order processing food delivery Apps in smart mobiles used by retailer to attract the customers and to gain their customer satisfaction. This research study is undertaken to identify the measurements on customer satisfaction towards order processing food delivery Apps in smart mobiles in Bengaluru. The researcher has collected in order to both primary as well as secondary data, Likert scale was used in designing the questionnaire, a sample of 275 respondents was taken from the customer in Bengaluru city. Data has been taken to SPSS 24.0 version, the study applied various statistical tools that include measures of central tendency, reliability and one-way ANOVA analysis and concludes that Smart mobiles food delivery retailers should take in to consideration and understanding the customers touch points in customer satisfaction levels to identify the customer need, want and demand to make them to satisfied and improve some measures those levels to bridge the gap to build long term relationship enhances customers satisfaction.

Keywords: Customer satisfaction, Food Delivery Apps, order processing

Introduction

Modern technology and innovation is playing a major role in Day-to-Day customer life and their life style is changing. Customer wants to live his life differently with more perception and expectation on purchase of the product and services. Development of technology and high speed internet facilities has made the large population to use smart phones in India. The first restaurant food delivery service in the world began in 1995 with World Wide Waiter and still operates today as Waiter.com. The top three restaurant food delivery services are Door Dash, Grub Hub, and Uber Eats. Swiggy is India's largest and highest-valued online food ordering and delivery platform founded in 2014. The number of smart phone users in India was estimated to reach over 760 million in 2021, with the number of smart phone users worldwide forecasted to exceed to 3.8 billion users in 2021. Today customer is downloading Mobile App from play store to pay electricity bill, for buying grocery products and placing order for food so that it gets delivered to their doorstep. Food delivery apps is a new business unit in the e-commerce division. It can bridges the

gaps between customer and food restaurants. As one of the trend is observed in the Indian metropolitan cities that many youths are attracting to smart mobile food delivery apps. Food delivery Apps can give help to the customers in food menu under different categories that provide unlimited food delivery service anytime. It can get Coupons, offers and discount; Promo Codes which are encouraging the customer to order food through food delivery apps.

Review of Literature

Dr. S. Preetha and S. Iswarya (2019) discussed in their article entitled "An Analysis of User Convenience towards Food Online Order and Delivery Application (FOOD App via Platforms), the technology is encourage and support of good information about quality, service, taste and price to use order food using Platform-to-consumer delivery app- The FOOD mobile app.

Rituparna Ghosh and Tapash Ranjan Saha (2018) have described "A Study of e-payment system on food delivery industry: A case study on swiggy" Order Food Online or through an App is a new concept in India,

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The study found to help the industry as well as the new entrepreneur to formulate marketing strategies in such a way that they can increase the volume of sales.

Mrs. I.Karthika, Miss. A.Manojanaranjani (2018) in their research study has stated that Consumer can now purchase goods and services virtually anywhere, 24 hours a day, 7 days a week, without geographical and temporal boundaries. The goal is to save time of customers by providing facilities like vacancy list at reception, digital food ordering, instant e-billing and fast parking service which will result in consumer satisfaction and ultimately profit the restaurant.

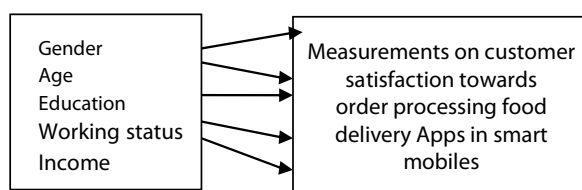
Aparna Anib, Gayathri.A and Shabu K.R.(2019) in this research paper title "Consumer Perception towards Swiggy Digital Food Application Service: A Analytical Study with Special Reference to Ernakulam City" food ordering and delivery is very successful because it bridges the gap between restaurants and consumers. It is a process where a customer will search for a restaurant and filter with the available items, cuisines and they deliver by an application in the mobile phone.

Dr. Sonali Jadhav (2018) in this study mentioned that the food delivery is gaining popularity with more and more people especially the younger generation turning to mobile food ordering apps, thereby changing the way food is delivered and picked up. Market is growing in leaps and bounds due to growing urbanization, increasing disposable income, working women and rapid increase in the use of smart phones. While new restaurants are coming up and technology being the need of the hour, India is dominating delivery market of the world.

From the above review of literatures, the researchers pinpointed a gap in literature which is that although many studies have investigated the measurements on customer satisfaction yet none according to the authors' intelligence have investigated the measurements on customer satisfaction between towards order processing food delivery Apps in smart mobiles outcomes of customer satisfaction and this leads to the contribution of this study.

Objectives of the Research

- To measure the categories of demographic factors and variables impacting on customer satisfactions towards order processing food delivery Apps in smart mobiles.
- To examine the role of customer satisfactions towards order processing food delivery Apps in smart mobiles.



Research Hypotheses

H01: There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the Gender group

H02: There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the Age group

H03: There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the Education group

H04: There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the working status

H05: There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the income group

Research methodology

The researches planned to carry out current study of descriptive in nature as the customer satisfactions towards order processing food delivery Apps in smart mobiles to increased the delivery activities to reach the customer. The researcher has developed keen interest in conducting a thorough inquiry into the various problems related to the various aspect of order processing food delivery Apps in smart mobiles and dig out deep at the various deficiencies and suggest suitable measures for streamlining the same. Food delivery App retailers to come out with new innovation best practices to satisfy the needs, want, desires and create a demands in the minds of present and potential customers. Research design is Descriptive in nature; Primary data is collected from the selected food delivery Apps at Bengaluru city by administering a structured questionnaire. 300 Customers have been selected as sample for the purpose of carrying out the survey and questionnaires were given to them for filling. Out of which 300 questionnaires we received 275 questionnaires, which are complete in all aspects and this is chosen for the study. Secondary data is collected through journals, reports, magazines. The sampling method used for this study was non-probabilistic convenience sampling method. The period of the study questionnaire data are collected during August – September 2021. Data is systematically coded and tabulated using SPSS 24.0 version worksheet. The researcher qualified the data before coding and tabulation. Data is processed using SPSS Software. The study applied various statistical tools that include measures of Central tendency, reliability and one –way ANOVA analysis.

Analysis and Interpretations

Table 1: Demographic profile

Particulars	Frequency	Percent
Gender		
Male	156	56.7
Female	119	43.3
Age		
20-25	49	17.8
26-35	87	31.6
36-45	88	32.0
46-60	19	6.9
60-Above	32	11.6
Education		
Undergraduate	7	2.5
Graduate	72	26.2
Postgraduate	196	71.3
Working status		
Employee	115	41.8
Employer	58	21.1
House wife	38	13.8
Student	44	16.0
Retired	9	3.3
self-Employed	11	4.0
Monthly income		
Less than- 10000	13	4.7
10001-20000	22	8.0
20001-30000	57	20.7
30001-40000	53	19.3
40001-50000	80	29.1
50001-60000	50	18.2
Total	275	100

Source: Collected from primary data

- From research analysis of 275 respondents, 56.7% are male and 43.3% are females respectively using order processing food delivery Apps in smart mobiles in Bengaluru. Hence it can be stated that male are more than females in order processing food delivery Apps in smart mobiles.
- 88 (32.0 %) respondents are in age group of 36-45 years, 87 (31.6 %) are in age group of 26-35

Years, 49 (17.8 %) are in age group of number of respondent were 20 -25 Years, 32 (11.6%) in the age group of above 46-60 Years and 19 (6.9 %) are in the age group of above 60 Years. From the results it can be infer that respondents in the age group of 36-45 Years, 26-35 Years and 20-25 years are the age groups interested in order processing food delivery Apps in smart mobiles.

- From 275 respondents, 196 (71.3) percent are Post graduates, 72 (26.2) percent with graduation and 7 (2.5) percent under graduate are reported in the education so that post graduation and graduation studies are more visit order processing food delivery Apps in smart mobiles. Educations play an imported role to give preferences and expectations towards order processing food delivery Apps in smart mobiles.
- The research analysis stated that Employee 115 (41.8%), Employer 58 (21.1%), student 44 (16.0 %) House wife 38 (13.8 %), Retired 9 (3.3%) and self-employed 11 (4.0%). It means salaried employees, employer, students and House wife to make happy and enjoy order processing food delivery Apps in smart mobiles.
- Present research study observed that monthly income of the respondents 20,001 – 30,000 income groups, 57 (20.7) percent, 30,001 – 40,000 53(19.3) percent, 40,001 - 50,000 80 (29.1) percent, and 50001-60000 50(18.2) percent. 40,001 - 50,000 80 (29.1) 20,001 – 30,000 income groups, 57 (20.7) percent, monthly income groups are to visits order processing food delivery Apps in smart mobiles

Table 2: Customer's Perception towards order processing food delivery Apps in smart mobiles

Do you have smart mobile		
Yes	259	94.2
No	16	5.8
Do you like order food in smart mobile		
Yes	249	90.5
No	26	9.5

What food do you order in smart mobile		
Veg	71	25.8
Non-Veg	68	24.7
Both	136	49.5
which foods you like		
North Indian	73	26.5
south Indian	91	33.1
Both	111	40.4
which variety of food do you order at food delivery app in smart mobile		
Tiffen	15	5.5
Meals	40	14.5
Snacks	30	10.9
ice cream	23	8.4
Biryani	61	22.2
Cakes	11	4.0
Pizza	71	25.8
Donut	24	8.7
what days do you order food in food delivery APPs		
Normal days	119	43.3
Weekends	156	56.7
what time do you order food in a day smart Mobile		
Morning time	26	9.5
Afternoon time	89	32.4
Evening time	50	18.2
Night time	110	40.0
How many people do you order food in food delivery APPs		
Alone	17	6.2
2-3	121	44.0
4-5	93	33.8
above-6	44	16.0
What occasion do you order the food in food delivery APPs		

Business Meeting	27	9.8
Special occasion (birthday, Marriage anniversary Etc.)	68	24.7
Festival	49	17.8
Get together Meeting	57	20.7
Holiday	74	26.9
which Restaurants do you like to take food in food delivery APPs		
Brand Restaurants	161	58.5
Local Restaurants	51	18.5
Fast foods	44	16.0
Home Made	19	6.9
Order of the food at food delivery APPs in smart Mobile		
Daily	63	22.9
Weekly	180	65.5
Monthly	32	11.6
No of time you order food at food delivery APPs in smart mobile per month		
1-4 times	151	54.9
5-8 times	97	35.3
9 –above	27	9.8
How much money do you spend to purchase food in food delivery APPs		
1-500	14	5.1
501-1000	109	39.6
1001-2000	92	33.5
2000-Above	60	21.8
Mode of payment		
Cash in hand	31	11.3
Debit card	48	17.5
credit card	72	26.2
Net banking	43	15.6
Wallet (Paytm ,Phonepe)	81	29.5

Sources of Awareness on food delivery		
Friends	34	12.4
Family	32	11.6
T.V	38	13.8
Radio	24	8.7
Newspapers	52	18.9
Internet	75	27.3
Magazines	20	7.3
Total	275	100

Source: Collected from primary data

- The study found that out of 275 respondents 259 (94.2%) have smart mobile and 16 (5.8%) are not having smart mobile.
- From the research study out of 275 respondent 249 (90.5%) like to order food in smart mobile and 26(9.5) do not like to order food in smart mobile.
- From the research study results 136 (49.5 %) order both Veg –Non, Veg, 71 (25.8%) and Non-Veg, and 68 (24.7%) like order food in smart mobile. Most of the respondent are preferred both veg-non veg to carry out order food delivery apps in smart Mobile.
- The research study show that respondents are showing the interest 111 (40.4%) like food both North-south Indian recipes, 91 (33.1) like food south Indian recipes and 73 (26.5) like food North Indian recipes. Form the research study Customer showing much more interest both North Indian and south Indian recipes like food delivery apps in smart Mobile
- The research study respondents are preferring variety of food Pizza 71(25.8%), biryani 61 (22.2 %), Meals 40 (14.5%),Snacks 30 (10.9%),Donuts 24 (8.7%) and ice cream 23 (8.4%) order at food delivery apps in smart mobile. Most of the respondents are showing interest on biryani, Meals, snacks and Donuts in order at food delivery apps in smart Mobile.
- Majority of 275 respondents are showing the interest that 156 (56.7 %) customer can visit the order food delivery apps in smart Mobile at week-end days and 119 (43.3%) visit the order food delivery apps in smart Mobile in weekend. From the research study Customer showing much more interest weekend's day's to orders food delivery apps in smart Mobile.
- From this research analysis 275 respondents stated that time they like to orders food through delivery apps in smart Mobile per a day that is Morning times 26 (9.5%), afternoon time 89 (32.4 %), Evening time 50 (18.2 %) and Night time 110 (45.0 %).Most of the customers orders food delivery apps in smart Mobile per day at afternoon and Night time.
- The research study 275 respondents, 17 (6.2 %) Alone, 2-3 people 121(44.0%), 4-5 people 93(33.8%) and 44 (16.0 %) no of people do you order food in food delivery APPs. Most of the customers' orders food delivery apps in smart Mobile number of per day are 2-3 people and 4-5 people.
- Number of the 275 respondents are prefer occasion to order the food in food delivery apps Business Meeting 27(9.8%), Special occasion (birthday, Marriage anniversary Etc) 68(24.7 %), Festival 49(17.8%), Get together Meeting 57 (20.7%) and Holiday 74 (26.9%). Majority of customer like in occasion to order the food in food delivery apps holidays and special occasion (birthday, Marriage anniversary Etc.).
- Majority of the 275 respondents are prefer the restaurant like to take food in food delivery apps Brand Restaurants 161(58.5%) Local Restaurants 51(18.5%) Fast foods 44(16.0%) and homemade 19(6.9%).Most of customer is like to take restaurants order the food in food delivery apps Brand Restaurants, Local Restaurants and Fast foods.
- In the research study 275 respondents are Order of the food at food delivery APPs in smart Mobile Daily 63(22.9%), Weekly 180 (65.5%) and Monthly 32 (11..6%). Most of the respondents are prefer to order the food in food delivery apps that is weekly and daily.
- The research study 275 identified that order the food in food delivery apps in month, 1-4 times 151 (54.9%), 5-8 times 97 (35.3%), and 9-above times 27 (9.8 %).Most respondents are showing to order the food in food delivery apps at 1-4 times and 5-8 times respectively.
- The study found that 275 respondents that spend money do you purchase food in food delivery apps 1-500 rupees 14(5.1%),501- 1000 rupees 109 (39.6 %), 1001-2000 rupees 92 (33.5 %) and 2001-above rupees 60 (21.8%).As per research study most of the customers 501-1000 rupees and 1001-2000 rupees are spend money do you purchase food in food delivery apps.
- From the research analysis 275 respondent of mode of payment cash in hand delivery 31 (11.3%), debit card 48(17.5%), credit card 72 (26.2%), Net banking 43 (15.6%) and wallet 81

(29.5%). Respondent shows interest to making payment Wallet (Paytm, Phonepe) and credit card order the food in food delivery apps.

- Majority of 275 respondents get sources of awareness in food delivery apps through friends 34(12.4%), family Members 32(11.6%), T.V 38 (13.8%), Radio 24(8.7%), Newspaper 52(18.9%) internet 75(27.3%), and magazines 20 (7.3%). From this study customer get more awareness in order in food by internet, newspapers, and T.V

Table 3: Which food delivery App you like in smart Mobile

Particulars	Frequency	Percent
Swiggy	75	19.2
Zomato	66	16.8
Uber Eats	29	7.41
Food panda	57	14.5
Domino's	41	10.5
Pizza Hut	40	10.2
Just Eat	13	3.3
Faaso's	11	2.8

Particulars	Frequency	Percent
TastyKhana	10	2.5
Food Mingo	9	2.3
Eat.fit	8	2.0
Dunzo	32	8.2

Source: Multiple responses, Total do not add up to 275

In the research statement all the respondents are like food delivery apps Swiggy 75 (19.2%), Zomato 66 (16.8%), Food panda 57 (14.5), Domino's 41(10.5%), pizza Hut 40 (10.2%), (Multiple responses, total do not add up to 100). Most of the customer are like food delivery apps in smart mobile that is Swiggy, Zomato and food panda.

Table 4 :Reliability Statistics

Cronbach's Alpha	N of Items
0.672	24

The reliability of data was checked through cronbach alpha test the value of alpha for the data was 0.672. 0.6-0.7 indicates an acceptable level of reliability.

Table 5: Customers' rating towards various variables of order processing food delivery Apps in smart mobiles

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Helpline 24x7	3.80	1.117	-.658	.147	-.421	.293
In food delivery Apps Order will cancellation	3.52	1.102	-.430	.147	-.500	.293
payment history	3.62	.980	-.252	.147	-.437	.293
Secure and Safety measures are taken in food delivery apps	4.06	1.072	-1.172	.147	.773	.293
Live tracking (where is my order)	3.77	1.024	-.446	.147	-.740	.293
Food Menu	3.47	1.058	-.329	.147	-.746	.293
tasty of food	3.55	1.007	-.275	.147	-.421	.293
customer services	4.09	.979	-.818	.147	-.193	.293
special Menu delivery	3.73	.966	-.670	.147	.118	.293
Time saving factor	3.96	.981	-.862	.147	.407	.293
In Time delivery	3.68	1.158	-.666	.147	-.330	.293
Cost saving	3.41	1.302	-.355	.147	-1.095	.293
Convenience	3.60	1.204	-.367	.147	-1.068	.293
Any Complaint	3.78	1.129	-.703	.147	-.385	.293

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Comfortable Prices	3.91	.987	-.689	.147	-.206	.293
Better Quality of food	4.07	.871	-.870	.147	.591	.293
Any discount	3.92	1.008	-.916	.147	.511	.293
food delivery platforms Charges	3.93	.983	-.737	.147	-.111	.293
Feedback	4.10	.889	-.791	.147	.208	.293
Billing	4.00	.771	-.523	.147	.319	.293
delivery person services	3.89	1.014	-.696	.147	-.064	.293
Packaging	3.87	.936	-.347	.147	-.830	.293
Time of Transportation	3.70	1.083	-.495	.147	-.324	.293
Offers and coupons	3.87	.881	-.394	.147	-.411	.293
Few items missing when the order was delivered	4.04	.905	-.763	.147	.141	.293

Sources: SPSS.24 /STATISTICS=STDDEV MEAN SKEWNESS SESKEW KURTOSIS

The variables considered for food delivery apps in smart mobile are measured on scale which consists of 25 items with their values ranging 1 to 5. The mean values of observed varied from 3.41 to 4.10 and standard deviation values range from 0.771 to 1.302 and the Skewness values have a range of -.0252 to -1.172

and kurtosis values range from -0.064 to -1.095 is considered excellent. Data is normally distributed as they are perfectly skewed with value between 1 and -1. The data is ready for psychometric analysis it is proved to be significant as shown in Table No.6.

Table 6: Testing of Hypothesis using One-way ANOVA

	F	Sig	F	Sig	F	Sig	F	Sig	F	Sig
Helpline 24x7	.008	.931	.564	.689	.697	.499	2.457	.034	.741	.594
In food delivery Apps Order will cancellation	.000	.989	.527	.716	.190	.827	1.001	.417	.313	.905
payment history	.101	.751	1.325	.261	.509	.602	1.704	.134	.452	.812
Secure and Safety measures are taken in food delivery apps	2.213	.138	3.657	.016	4.006	.089	1.631	.152	1.578	.167
Live tracking (where is my order)	.007	.934	.399	.810	.066	.936	.486	.786	.829	.530
Food Menu	.001	.977	.875	.479	.724	.486	.998	.419	1.322	.255
tasty of food	.163	.687	.357	.839	.394	.674	1.243	.289	1.120	.350
customer services	1.304	.255	1.264	.285	.709	.493	.950	.449	1.934	.089
Special Menu delivery	.003	.959	.776	.542	2.390	.094	.546	.741	2.146	.060
Time saving factor	.170	.680	.912	.457	1.099	.335	1.174	.322	1.050	.389
In Time delivery	.445	.505	.798	.527	.430	.651	.967	.438	.454	.810
Cost saving	1.190	.276	.629	.642	1.221	.297	.305	.910	2.242	.051
Convenience	.071	.791	1.848	.120	.464	.629	.715	.612	1.144	.338
Any Complaint	2.420	.121	1.227	.300	2.910	.056	1.155	.332	.695	.628
Comfortable Prices	.120	.729	2.388	.051	2.281	.104	.532	.752	1.869	.100
Better Quality of food	.096	.757	.731	.572	1.296	.275	1.199	.310	1.206	.307
Any discount	.824	.365	2.382	.052	.832	.436	.279	.925	1.332	.251
food delivery platforms Charges	.007	.936	.664	.618	1.982	.140	.564	.728	.866	.504
Feedback	.002	.966	2.086	.083	.118	.889	1.135	.342	1.386	.230
Billing	1.031	.311	.617	.651	.456	.634	.498	.778	.527	.756

	F	Sig	F	Sig	F	Sig	F	Sig	F	Sig
delivery person services	2.242	.135	3.927	.094	1.816	.165	.590	.708	.447	.815
Packaging	2.444	.119	1.131	.342	.814	.444	1.524	.182	1.566	.170
Time of Transportation	2.317	.129	.647	.629	1.292	.276	1.137	.341	.447	.815
Offers and coupons	.025	.875	.331	.857	.017	.983	.302	.911	2.583	.027
Few items missing when the order was delivered	.255	.614	.492	.742	.114	.893	.451	.812	2.297	.046

Source: SPSS .24 One –way ANOVA Sample Test worksheet

H_{01} : There is no significant variance between customer satisfactions towards order processing

food delivery Apps in smart mobiles among the Gender group.

One –way ANOVA is in order to know about the gender has any significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles. From the above table, p value is found to be Helpline 24x7 0.931, In food delivery Apps Order will cancellation 0.989, payment history 0.751, Secure and Safety measures are taken in food delivery apps 0.138, Live tracking (where is my order) 0.934, Food Menu 0.977, tasty of food 0.687, customer services 0.255, Special Menu delivery 0.959, Time saving factor 0.680, In Time delivery 0.505, Cost saving 0.276, Convenience 0.791, Any Complaint 0.121, Comfortable Prices 0.729, Better Quality of food 0.757, Any discount 0.365, food delivery platforms Charges 0.936, Feedback 0.966, Billing 0.311, delivery person services 0.135, Packaging 0.119, Time of Transportation 0.129, Offers and coupons 0.875, Few items missing when the order was delivered 0.614, all the impact variables of customer satisfactions which are greater than the significant ($P > 0.05$) so that , null hypothesis (H_0) is accepted

H_{02} : There is no significant variance between customer satisfactions towards order processing

food delivery Apps in smart mobiles among the Age group.

The research study shows in ANOVA table 4, it is observed that the significant preconceived are Helpline 24x7 0.689, In food delivery Apps Order will cancellation 0.716, payment history 0.261, Secure and Safety measures are taken in food delivery apps 0.016, Live tracking (where is my order) 0.810, Food Menu 0.479, tasty of food 0.839, customer services 0.285, Special Menu delivery 0.542, Time saving factor 0.457, In Time delivery 0.527, Cost saving 0.642, Convenience 0.120, Any Complaint 0.300, Comfortable Prices 0.051, Better Quality of food 0.572, Any discount 0.052, food delivery platforms Charges 0.618, Feedback 0.083, Billing 0.651, delivery person services 0.094, Packaging 0.342, Time of Transportation 0.629, Offers

and coupons 0.857, Few items missing when the order was delivered 0.742 for all the impact variables of customer satisfactions which are greater than the significant ($P > 0.05$) so that , null hypothesis (H_0) is accepted.

H_{03} : There is no significant variance between customer satisfactions towards order processing

food delivery Apps in smart mobiles among the Education group.

One way ANOVA is to know about education level has any significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles. The significant level P-value of ANOVA is show table .since $p =$ Helpline 24x7 0.499, In food delivery Apps Order will cancellation 0.827, payment history 0.602, Secure and Safety measures are taken in food delivery apps 0.089, Live tracking (where is my order) 0.936, Food Menu 0.486, tasty of food 0.674, customer services 0.493, Special Menu delivery 0.094, Time saving factor 0.335, In Time delivery 0.651, Cost saving 0.297, Convenience 0.629, Any Complaint 0.056, Comfortable Prices 0.104, Better Quality of food 0.275, Any discount 0.436, food delivery platforms Charges 0.104, Feedback 0.889, Billing 0.634, delivery person services 0.165, Packaging 0.444, Time of Transportation 0.276, Offers and coupons 0.983, Few items missing when the order was delivered 0.893 for all the impact variables of customer satisfactions which are greater than the significant ($P > 0.05$) so that , null hypothesis (H_0) is accepted.

H_{04} : There is no significant variance between customer satisfactions towards order processing

food delivery Apps in smart mobiles among the working status.

One –way ANOVA table-4 , it is declare that the significant preconceived are for all the influencing $p =$ Helpline 24x7 0.034, In food delivery Apps Order will cancellation 0.417, payment history 0.134, Secure and Safety measures are taken in food delivery apps 0.152, Live tracking (where is my order) 0.786, Food Menu 0.414, tasty of food 0.289, customer services 0.449, Special Menu delivery 0.741, Time saving factor 0.322, In Time delivery 0.438, Cost

saving 0.910, Convenience 0.612, Any Complaint 0.332, Comfortable Prices 0.752, Better Quality of food 0.310, Any discount 0.925, food delivery platforms Charges 0.728, Feedback 0.342, Billing 0.778, delivery person services 0.708, Packaging 0.182, Time of Transportation 0.341, Offers and coupons 0.911, Few items missing when the order was delivered 0.812 for all the impact variables of customer satisfactions which are greater than the significant ($P > 0.05$) so that, null hypothesis (H_0) is accepted.

H_{05} There is no significant variance between customer satisfactions towards order processing

food delivery Apps in smart mobiles among the income group.

From this income group One-way ANOVA table, it is mentioned that the significant work out for all the

influencing $p = \text{Helpline 24x7 } 0.594$, In food delivery Apps Order will cancellation 0.905, payment history 0.812, Secure and Safety measures are taken in food delivery apps 0.167, Live tracking (where is my order) 0.530, Food Menu 0.255, tasty of food 0.350, customer services 0.089, Special Menu delivery 0.060, Time saving factor 0.389, In Time delivery 0.810, Cost saving 0.051, Convenience 0.338, Any Complaint 0.628, Comfortable Prices 0.100, Better Quality of food 0.307, Any discount 0.251, food delivery platforms Charges 0.504, Feedback 0.230, Billing 0.756, delivery person services 0.815, Packaging 0.170, Time of Transportation 0.875, Offers and coupons 0.027, Few items missing when the order was delivered 0.046 for all the impact variables of customer satisfactions which are greater than the significant ($P > 0.05$) so that, null hypothesis (H_0) is accepted.

Table 7: Results of Hypotheses testing

NO.	Hypotheses	Results	Tools
H01	There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the Gender group	Accepted	One- way ANOVA
H02	There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the age group	Accepted	One- way ANOVA
H03	There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the education group	Accepted	one -way ANOVA
H04	There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the working status group	Accepted	One- way ANOVA
H05	There is no significant variance between customer satisfactions towards order processing food delivery Apps in smart mobiles among the income level group	Accepted	One- way ANOVA

Conclusion

The measurements of customer satisfaction towards order processing food delivery Apps in smart mobiles, the retailers should see the order processing food delivery Apps in smart mobiles to build a long-term relationship with the customers. Food Retailers apps play a major role to identify customer expectations and perception are created in the satisfaction level of customer. Smart mobiles food delivery retailers should take in to consideration and understanding the customers touch points in customer satisfaction levels to identify the customer need, want and demand to make them to satisfied and improve some measures those levels to bridge the gap to built long term relationship enhances customers satisfaction.

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The Impact of Reward Systems on Employee Performance

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Abstract

Reward System is characterised by various factors and there exists relations between these factors and the performance of the employees. The purpose of this work is to assess the impact of reward systems on employee performance. This work is based on data collected from the field as well as on published materials for evaluation. The awareness regarding the reward system and perception of long term rewards proves to have a relation with employee performance. But on the other hand, the perception on short term rewards is not having such a positive correlation. Even though the current reward system is good enough and satisfactory, employees demand more transparency in information with regard to the reward system that could help them attune to the requirements of the company. The study is limited to the Indian IT industry and has the future scope of study in different industries. The study results could serve as a guideline and reference for similar studies in future on the impact of reward systems on employee performance in different industries across different nations.

Keywords: Employee Motivation, Employee Performance, Indian IT Sector, IT Professionals, Reward System

Introduction

Employees earn rewards for their job performance in a company when they achieve a goal or receive a benefit. Employees are awarded according to the organization's reward scheme. Employees come to work expecting to be rewarded in some way. Some people may expect higher pay and wages as a reward for their hard work, while others may want non-monetary benefits such as accommodations, transportation, health, safety, and other perks as a

reward for their efforts. Thus, reward refers to the financial and non-financial benefits that a firm provides to employees in exchange for their job performance, independent of their expectations. When an employee first joins the organisation, the incentive provisions must be disclosed or informed to them in advance. In addition, periodic adjustments or any changes made should be adequately communicated to employees in order to increase transparency in the rewards system.

Incentive management is the process of matching the reward system to the level of performance for each job assigned to employees in a business. An

organisation must have a well-planned and adequate reward system in order to manage rewards effectively. This incentive management system must be transparent and appealing. Furthermore, such a system must be of sufficient quality and efficiency to properly reward and empower loyal and dependable staff. Reward management will also aid in the planning of long-term financial management, allowing the firm to better align itself with its vision over time.

In a nutshell, reward management entails determining and awarding a reward to an employee based on their job performance and keeping track of it. This will encourage employees to work hard to achieve the organization's aims and objectives. Differentiating between comparable businesses is made easier with the help of reward management. Appropriate, up-to-date, transparent, and competitive incentive management will boost employee morale in a company. They will be pleased to be connected with such a group. Benefits, facilities, and career advancement are all factors to consider when determining the incentive. It is also critical that incentive management corresponds to job performance levels, personnel needs, and overall organisational capabilities.

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Literature Review

A rewards system might be official or informal, according to (Armstrong, 2010). It is a mechanism by which companies pay their staff. Total rewards is defined by WorldatWork, a global human resource association that focuses on salary and benefits, as a tool for businesses to attract, retain, and motivate their outstanding employees (WorldatWork, 2007). It comprises everything that the employees appear to be off and valuable in their working connection. Rewards are also an important tool for attracting, motivating, and retaining people, according to (Bussin & Van Rooy, 2014). (Kwon, Hewitt, and Hein, 2013) agrees, adding that total rewards are a method of attracting, motivating, and retaining individuals inside an organisation. They also claim that organisations who use a total incentives system will get a greater and more consistent return on their investment in their personnel. According to (Mehmood, Ramzan, & Akbar, 2013), rewards are a tool that may be utilised to improve performance as well as influence employee behaviour and

discontent at work. (Mehmood et al., 2013) supports Van Rooy and Bussin's definition by stating that incentives include non-financial rewards such as awards and recognition, promotion, reassignments, and other reward programmes, as well as monetary rewards such as raises in salary and bonuses. Organizations must build rewards systems in order to motivate and retain personnel in order to acquire a competitive advantage over competitors in such circumstances (Mehmood, et al. 2013).

Organizations can utilise a variety of different reward systems. The system of rewards can be characterised as intrinsic or extrinsic, according to (McCormick and Tiffin, 1979). The intrinsic reward system refers to those that are built into the job and that the individual enjoys as a result of completing the task or achieving his objectives.

Extrinsic reward, on the other hand, comes from the outside and is concrete in order to recognise the employee's efforts. Extrinsic benefits, such as compensation, are not related to the job's task.

In the work environment and circumstances of work, work conditions, fringe benefits, security, and promotion, contract of service, wage, incentives, bonuses, payments, and job security 2011 (Badrinarayan and Tilekar).

(i) Intrinsic Reward

The intrinsic incentive is primarily concerned with the psychological growth of employees in a company (Williamson, Burnett & Bartol, 2009). These intrinsic rewards are intangible benefits that include aspects such as employee feedback and decision-making

participation (Hackman & Oldham, 1976). The intrinsic reward system was designed with the intention of appreciating employees in the form of self-esteem, as well as their sense of accomplishment and advancement within the firm. Employees are satisfied when they have produced something meaningful and helpful at work and are verbally acknowledged. 2011 (Nawab, Ahmad, and Shafi).

(ii) Extrinsic Rewards

The extrinsic rewards cover the basic needs of income to survive (to meet daily living), a feeling of stability and consistency (the job is secure), and recognition (my workplace values my skills and helps in development). An extrinsic reward is outcomes supplied by the organization and includes salary, status, job security and fringe benefits. One can compare these rewards to the job context items that Herzberg called hygiene factors.

(iii) Use of Combination of Intrinsic and Extrinsic Rewards

The contrast between extrinsic and intrinsic incentives, according to (Kreitner and Kinichi, 1999), is an alternate kind for organisational rewards, although this entails embracing one form of reward while disregarding the other. It is advised that organisations use a blend of intrinsic and extrinsic rewards in their organisational reward package. Even while monetary prizes are appreciated by employees, managers should never use them as the sole motivator for their staff to raise their performance levels. If this occurs in an organisation, the purpose of the reward may be lost. Managers should be aware of 'non-rewards,' according to research. Such incentives should be used sparingly and not all of the time. They're sometimes referred to as passive, and they don't always result in positive behaviour in the long run.

Employee performance is a measure of an organization's ability to achieve its objectives in a cost-effective manner (Venkatraman & Ramanujam, 1986). It can be assessed in a variety of ways, including the employee's commitment at work, their work values, and their cohesiveness in the workplace. It's also linked to output quantity as well as quality. It considers output timeliness and attendance on the job, as well as the efficiency of work completed or done and the efficacy of the job completed (Mathis & Jackson, 2011). Employee performance is defined as an individual or people's successful execution of a task as needed and measured by an organization's supervisor. It entails satisfying pre-determined and acceptable requirements while utilising available resources efficiently and effectively in a changing setting. According to (Aguinis, 2009), performance does not include the outcomes of an employee's actions, but merely the actions themselves. Five human

resource management methods that can affect performance are proposed by (Carlson, 2006). Setting a competitive compensation level, training and development, recruitment packages, performance appraisal, and maintaining morale are the items on the list. Employee perceptions of their own behaviour and contributions to the organization's success are referred to as perceived employee performance. Employee performance is determined by three main factors: procedural knowledge, declarative knowledge, and motivation (McCloy, 1994).

In our fast-paced, ever-changing workplaces, motivated employees are essential. Employees are the only strategic assets that keep businesses alive and allow them to improve. Managers must understand what motivates people in the context of their jobs in order to be effective. Managers have a variety of responsibilities, but inspiring staff is the most difficult. This is owing to the fact that everything that inspires employees is always changing (Bowen & Radhakrishna, 1991). Employees can be motivated largely through adopting appropriate rewards and recognition programmes, as well as other advantages. According to (Kerrin & Oliver, 2002), compensation schemes also achieve other objectives such as legal compliance, labor cost control, perceived employee fairness, and enhanced employee performance in order to attain higher levels of productivity and customer satisfaction. According to (Bishop, 1987), remuneration is closely related to productivity, and the reward system is mostly determined by the size of an organization. The compensation system of a company is vital in inspiring employees to perform creatively. A good reward and recognition system can be a good motivator, but an ineffective reward and recognition program can lead to employee demotivation. The reward is the benefit received for performing a task. It is a positive stimulus or incentive that can be presented in the process of reinforcing the behaviour. Today's workforce, according to (Robbins and Decenzo, 2002), wants more from their employers than just an hourly pay or salary; they also want other considerations that will improve their lives. Employee benefits are the terms for these concerns in the workplace. Benefits are the programmes that a business utilises to disperse an employee's monetary remuneration. Rewards can be extrinsic or intrinsic. Extrinsic rewards are the tangible rewards that one gets directly from the employer. External rewards can be in terms of salary/pay, incentives, bonuses, stock options, promotions, job security, flex-time, etc. Intrinsic rewards are intangible rewards or can be psychological rewards that one receives from the job itself. These can be self-initiated rewards. Such as pride in one's work, a feeling of accomplishment, appreciation, meeting the new challenges and accomplishing them, positive and caring attitude from the employer, and

participation in decision making, or being part of teamwork. Rewards may or may not enhance their employee's financial well-being. If they do, they can do this directly through the provision of wages, bonuses or profit-sharing or indirectly, through employer-subsidized benefits such as retirement plans, paid vacations, paid sick leaves and purchase discounts. Non-financial rewards do not directly increase the employee's financial position but it emphasizes on making the life on the job more attractive and satisfactory. Rewards and recognition programs honour both individuals as well as the teams who go for an extra to serve their organizations.

Individuals are generally motivated by the work they do and by the requirements they have that must be met. Such people would devote themselves to jobs that they believe will allow them to meet their wants through the compensation they will receive for their efforts. The nature of the incentives determines the sort of motivation. Individual and organizational performance may be improved through boosting productivity, quality of performance, and fostering positive work attitudes from employees who are aligned with the organization's goals. (Bayon, 2013) Individuals that are genuinely driven will be dedicated to their work only if they have discovered a task that is intrinsically satisfying (Ajila, 1997). Extrinsically motivated individuals, on the other hand, will be committed to the extent that they can achieve or receive external incentives for their work. To put it another way, you can only get what you reward. As a result, good remuneration is required to include some features that reward both intrinsically and extrinsically in order to increase both extrinsic and intrinsic motivation in employees.. Employee performance can be geared toward organizational effectiveness with a well-motivated workforce, which allows individuals to focus on the development of their work in terms of behavior, knowledge, ethics, skills, and effectiveness (Pratheepkanth, 2011). The human resource department is particularly concerned about each and every employee's performance. Regardless of an employee's qualifications or length of service, they may be hesitant to give out their best effort on the job. Some people who have a high level of performance at the beginning of their profession begin to diminish or drop when they are expected to apply their experience and perform even better.

Many people merely work within the parameters of their job descriptions and are uninterested in putting in extra effort to meet the organization's objectives. This takes innovation out of the workplace and limits opportunities for advancement. Motivating such employees to become self-driven, self-motivated, and work-oriented is difficult (Grant, 2008). According to (Pierce, 2003), a good incentive system isn't static;

it's continually fine-tuned, and its performance is frequently assessed to ensure that it's always capturing employees' motivation. It should arouse a persistent drive to achieve high standards, promote contentment, and provide a sense of competence and freedom (Danish & Usman, 2010). Employers are more likely to acquire the behavior that they reward, rather than the behavior that they anticipate will occur naturally. As a result, when employees meet or exceed their goals, they are expected to be rewarded instantly as a form of motivation. Employees will be able to immediately link reward to their work behavior and the higher level of performance they have obtained or achieved if this is done in this manner (Torrington & Hall, 2006). Reward systems, according to this statement, are crucial for an organization's success (Maud, 2001). Despite the fact that reward systems have the ability to attract the right employee, retain them, and continually motivate them to deliver desired performance (Otieno, 2006), a poorly structured reward system can result in high labor turnover, low productivity, and a general lazy attitude in employees at work. As a result, it is critical for management to establish a reward system that provides positive consequences or impacts for desirable employee performance. This will instill in employees a strong desire to be creative, innovative, and performance-oriented, which can lead to increased productivity, giving the company they work for a competitive advantage or a competitive edge in the global market.

Research Methodology

Cooper and Schindler (2003) describe research design as "the plan and organization of investigation devised to achieve answers to research questions." A descriptive research design is used in this study, which entails surveying people and collecting their responses for analysis. To better understand the link between variables in the research problem, this study used both quantitative and qualitative research methodologies inside the descriptive research design.

Employee performance is the dependent variable in this study, whereas the reward system is the independent variable. The population for the study was drawn from the five top-rated enterprises at the IT cluster, Technopark, in Trivandrum, Kerala. When gathering data, a representative sample of the population was taken into account.

Sample Size

According to statistics calculation, at 95% confidence level with a margin of error 5% a population size of 1500 was taken. The sample size was 306. This means that 306 or more surveys were needed to have a confidence level of 95% that the real value is within 5% error of surveyed value.

Equation

$$n = \frac{z^2 \times p(1-p)}{\epsilon^2}$$

For infinite population

For 95% confidence level, $z = 1.96$

Assume population proportion, $p = 0.5$

Margin of error, $\epsilon = 5\% = 0.05$

Substituting these values we get $n = 384.16$

For finite population,

$$n' = \frac{n}{1 + \left[\frac{z^2 \times p(1-p)}{\epsilon^2 \times N} \right]}$$

Infinite population, $n = 384.16$

For 95% confidence level, $z = 1.96$

Assume population proportion, $p = 0.5$

Margin of error, $\epsilon = 0.05$

Population size, $N = 1500$

Substituting these values Therefore, $n' = 306.50$

Hence, the sample size is 306.

The data is collected from the following companies:

List of Companies		
Sl.No	Company	Rating
1	TCS	4.6
2	UST Global	4.5
3	Binary Fountain	4.5
4	Infosys	4.5
5	Allianz	4.4

The questionnaire was distributed among the employees of the listed companies by means of directly contacting and sending e-mails. Random unbiased data were collected based on the first collected 306 samples.

Primary Data

Questionnaires were used to collect primary data. The questionnaire was chosen because it allows for the collection of data from a large number of people in a short amount of time and at a low cost. (1994, Foddy). This technology allows for freedom of expression while also allowing for precise data retrieval to capture key themes from the study on the impact of rewards on employee performance. The

questionnaire was used to gather information from IT staff in order to determine the effect of incentives on employee performance.

Secondary Data

Secondary data includes data from articles, journals, research reports and magazines.

Data Analysis

For the analysis, the computer applications SPSS

and XLSTAT were used, which is considered valid and reliable tools. It has the ability to provide a suitable correlation between variables. Correlation and regression analyses are performed since the study considers employee performance as the dependent variable and the reward system as the independent variable. Also, tests such as the Chi-square test are employed to see if there is any correlation between the variables under consideration.

Theme for questionnaire	
Research Objectives	Considering Factors
To determine the relationship between demographic factors and employee performance	<ol style="list-style-type: none"> 1. Age 2. Work Experience 3. Income
To determine the impact of awareness of reward system on employee performance	<ol style="list-style-type: none"> 1. Information transparency 2. Level of satisfaction 3. Reward fairness 4. Benchmarking techniques
To determine the impact of perception of short term rewards on employee performance	<ol style="list-style-type: none"> 1. Short term incentives 2. Instant Rewards 3. Reward Points
To determine the impact of perception of long term rewards on employee performance	<ol style="list-style-type: none"> 1. Recognition 2. Challenging assignments 3. Opportunities for career growth and development 4. Empowerment 5. Salary 6. Job security 7. Promotion 8. Fringe Benefits

Results and Discussion

The goal of this study was to see if there was a statistical relationship between demographic parameters such as age, work experience, and annual income

and employee performance and perceptions of the reward system. The study also looks into if there is a link between employee performance and awareness of the reward system, perception of short-term rewards, and perception of long-term benefits.

Table 1. Demographic Factors and Employee Performance

	Demographic Factors	Employee performance
Demographic Factors	1	0.312
Employee performance	0.312	1

Table 2. Demographic factors and perception on reward system

	Demographic Factors	Perception
Demographic Factors	1	-0.9993
Perception	-0.9993	1

Table 3. Awareness of the reward system and Employee performance

	Awareness	Employee Performance
Awareness	1	0.44
Employee Performance	0.44	1

Table 4. Perception of long term rewards and Employee performance

	Perception of Long Term Rewards	Employee Performance
Perception of Short Term Rewards	1	0.98
Employee Performance	0.98	1

Table 5. Perception of short term rewards and Employee performance

	Perception of Short Term Rewards	Employee Performance
Perception of Short Term Rewards	1	-0.347
Employee Performance	-0.347	1

Regression Equation

i. $y = a + bx$ ii. $EP = 16.77 + 0.98L$

EP = Employee Performance y = Intercept L = Long Term Reward

Table 6. Regression Analysis Output

	Coefficients	Standard Error	t Star	P-value	Lower 95%	Upper 95%	Lower 95%	Upper 95%
Intercept	-16.776356838400300000	3.4583E.15	-5.136501869	0.014294543	-2.8T694E-15	-6.758E-16	-2.877E-15	-6.75771E-16
Perception on short term rewards	-9.476373888	1.38442E.15	0.535661452	0.625980039	-3.68531E-16	5.19E-16	-3.685E-16	5.19004E-16
Awareness	-18.06858783	2.2506E.15	-0.915127842	0.425811832	-9.231E-16	5.0938E-16	-9.231E-16	5.09382E-16
Perception on long term rewards	0.980000000	1.34604E.15	7.342919E+15	5.37831E-48	0.98	0.98	0.98	0.98

There is no correlation between demographic characteristics and employee performance, according to the research. Employee performance is unaffected by age, work experience, or annual salary. The perception of the reward system and demographic characteristics were found to be negatively associated. This means that demographic characteristics have no bearing on how people perceive the incentive system. Employee performance and reward system awareness were found to have a positive link. Employee performance is influenced by elements such as information transparency, level of happiness, perception of reward fairness, and awareness of benchmarking tools. The perception of short-term rewards and employee performance have a negative association, according to the study. That is, giving employees short-term incentives, rapid prizes, and reward points has little effect on their performance. There is a considerable link between employee performance and employee perceptions of long-term compensation, according to the report. This shows that motivation supplied in the form of long-term incentives boosts employee performance greatly.

Employees' performance was found to be influenced by their understanding of the incentive system and their perception of long-term rewards. This means that when employees are aware of the reward systems in place, and they are properly implemented and managed, they are motivated to perform better.

Because the perception of short-term rewards has little impact on employee performance, firms should place a greater emphasis on long-term rewards while continuing to offer short-term incentives, reward points, and quick prizes. It's also critical to keep personnel aware about the previously established standards for obtaining Short-Term and Long-Term Rewards. This provides individuals with a feeling of purpose and clarity, allowing them to flourish in their chosen fields.

Conclusions

The Indian IT sector did a study on the impact of reward systems on employee performance, which gives us insight into the various aspects that affect employee performance in the IT business. Employee performance is positively influenced by employee awareness of the reward system and perceptions of long-term rewards. Demographic considerations have little effect on employee perceptions of the incentive system, which could be because employees have a good attitude toward the system. According to the findings, IT employees are content with the current reward system, and they appear to agree that it motivates them and has a favorable impact on their performance. At the same time, they demand a greater understanding of the organization's policies

and processes, which will enable them to meet the criteria.

ii. Future Scope

Knowing what employees require or expect in order to improve performance is one of the most valuable assets an organization can possess. Many businesses suffer as a result of their staff's poor performance and are oblivious to the causes. Employees demand more awareness and transparency of information in order to achieve company standards or needs, even when the current compensation structure appears to be good, according to this study. Companies could establish a line of communication with their worker's companies might make customers more aware of their incentive system without overburdening them, and the research may be expanded to uncover novel methods to refurbish existing reward systems with a focus on long-term rewards.

Conflict of Interest: Nil

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Opportunities and Challenges in Online Teaching for MBA Students in India During the Covid Pandemic

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Abstract

The covid 19 pandemic has taken the entire education system worldwide by a storm and India being an educational hub with over 260 million students has been hit hard. This article focuses on the online teaching for MBA students during the pandemic and has made a systematic review from various research papers, articles, cases for arriving at the opportunities and challenges posed by online teaching during the covid times. This paper portrays the opportunities and challenges faced by MBA institutes under Mangalore university in engaging students through online mode of learning during these critical times. Efforts are made to reflect on the evolution of management education in India and its current status so as to narrate the nature of teaching learning process adopted before and after the pandemic. This paper has adopted a qualitative approach in arriving at the paradigm shift in teaching practices of management institutes. The intent of this research paper is to arrive at a holistic picture of the opportunities made use of and challenges to be combatted by MBA institutes in ensuring smooth conduct of academic activities in order to craft globally acceptable management graduates.

Keywords: Learning During COVID-19, Management Education, Online Teaching.

Introduction

The COVID-19 pandemic, also known as the coronavirus pandemic, is an ongoing global pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This virus was first identified in December 2019 in Wuhan, China. The World Health Organization declared a Public Health Emergency of International concern regarding COVID-19 on 30 January 2020, and later declared it as a pandemic on 11 March 2020. This pandemic spread among individuals during close contact and resulted in millions of deaths across the world. The severity and fierceness with which this covid-19 has spread and killed millions has resulted in making it the greatest health crisis since and after centuries of human civilization (Remuzzi and Remuzzi, 2020). In order to control the spread of this deadly pandemic Nations across the world resorted to lockdown which involved restricting people from leaving their place of living resulting in stay at home across the world.

In India 21 days of lockdown was declared from March 25, 2020 which was further extended on April 15, 2020 for another 19 days that ended on May 4, 2020. However, educational institutions in India

started shutting down campuses from March 16, 2020 as a measure to contain the spread of Coronavirus. COVID-19 pandemic started becoming very serious for higher education after the 20th of March 2020, when, according to the data by UNESCO (UNESCO, 2020) more than 1.3 billion learners of all levels of education in 142 countries are affected by the lockdown. Being proactive for the oncoming serious situation, UNESCO urged governments all around the world to take measures in order to restore educational function to the best possible extent (Owusu-Fordjour, Koomson, & Hanson, 2020). Educators across various levels were left with no choice but to replace the well accepted traditional learning with the newly introduced distance and online learning approaches. From kindergarten to post-doctoral programs, from elementary to tertiary, from medicine to management all forms and levels of education had to shun traditional learning methods and adopt to online learning mechanism in order to stay connected with the students in the months that followed.

Review of Literature

Dhawan (2020) rightly identified that the COVID-19 pandemic has provided us with an opportunity to

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pave the way for introducing online learning. Billings (2007) defined online learning as an information delivery mechanism where educator and learner are physically separated. Subedi et al (2020) E-learning tools have played a crucial role during this pandemic in helping schools and universities facilitate student learning during the closure of universities and schools. The adoption of online learning mechanism saw a shift from traditional chalk and talk method of learning to modern click and learn method. Petrie, (2020) identifies Some of the online platforms that to have unified communication and collaboration platforms such as Microsoft Teams, Google Classroom, Canvas and Blackboard, which allow the teachers to create educational courses, training and skill development. Other than these, there were a plethora of learning options luring teachers and students alike to connect during these tough times like zoom, webex, Neo, Classtime, Classwize, Ted-Ed, Coursera, Bakpax, Pronto, Skillshare, ClassDojo, Edmodo, Blackboard Learn, Parlay, Docebo, Feedback Fruits, Udemy, WeVideo, WizIQ, Flipgrid, Codecademy, Gynzy, Adobe Captivate, Seesaw, Edx, GoGuardian, Elucidat, Kami, Pluralsight, G Suite, Otus, Articulate 360, Floop, Future Learn, Hapara, Shift, Lectora Inspire, Kialo Edu, Buncee, LanSchool and many more (Loknath Mishra et al, 2020). Kashyap, Sailaja et al (2021), researched that 80 per cent of the higher education sector educators and learners confidently adapted to this new mode of learning as a smart alternative during these uncertain times.

The advent of management education in India was marked by the constitution of Indian institute of social welfare and business management in 1954. It was soon followed by opening of management departments in university of Andhra Pradesh, Bombay, Delhi and Madras. Philip J. (1992). Kumar and ashok (2013), have opined that the 60s saw the emergence of India as a major center of management education. The establishment of the Indian Institute of Management, Calcutta (IIMC) in 1961 and the Indian Institute of Management, Ahmadabad (IIMA) in 1962, the establishment of the management division at the Xavier Labor Relations Institute (XLRI) in the year 1966, offering of full-time MBA programs in Delhi and Bombay universities and the entry of a number of other universities marked a quantum jump with respect to the numbers, recognition, prestige and impact of management education system in the country. Brainfeed Magazine 2019, reported that in the 1970s and 80s the demand for Management education in India grew at a fair rate. The dawn of economic liberalization in India in the 90's and the emergence of AICTE gave a new direction to Management education. Within a time span of two decades, between 1990 and 2010, All India Council for Technical Education (AICTE) permitted the players in the private sector

to set up a large number of education institutions providing management education. In the academic year 2012 to 2013, there were a total of 3,882 institutions providing management education with a total student intake of 44,44,487 which was reduced to 3,070 institutions with a student intake of 3,73,456 students in the year 2019-2020. Goyal Et al (2020)

The structure of Indian management education at present is divided into six categories. They are as follows:

1. Indian Institute of Management which is set up by the Government of India.
2. Departments of Management Studies at various Universities, Distance/Correspondence and Part-Time Courses.
3. Colleges and Institutes affiliated to various Universities.
4. Private institutions or Government Institutions approved by AICTE.
5. Private Institutes or Colleges without any affiliation to any university or by the AICTE.
6. Private Institutes offering Master of Business Administration

Need for the study

With a fleet of institutions offering management programme in our nation, the concern with regards to study on impact of online teaching owing to covid 19 pandemic has emerged as an interesting area of study for several researchers. In the light of this, the topic for this research paper was drawn in order to enable researchers understand the adoption of different method of online teaching by management institutes as well as the challenges encountered by them so that the same paves the way for more concrete and empirical research in this area of study.

Objectives

1. To understand the scenario that led to MBA institutions adopting online teaching.
2. To identify the opportunities capitalized by MBA institutes during the covid pandemic
3. To examine the major challenges faced by MBA institutes in adopting to online teaching
4. To analyse the transition from old to new methods of teaching learning adopted by management institutions.

Methodology

This paper has been crafted using qualitative data drawn from research articles and case studies published by refereed journals and renowned publications

and research reports by KPMG, newspaper articles, blogs, websites of higher education department, MHRD, AICTE, UGC etc. have also been refereed to. Data relating to online methods adopted by MBA institutes affiliated to Mangalore University in Mangalore, Karnataka have been drawn from their websites and collected from interviews with institute Directors. In all this paper is a culmination of efforts expended by various MBA institutes in keeping students engaged through online mode of teaching in order to ensure continued learning during covid times.

Findings and Discussions

Management Education Delivery Process Before the Pandemic:

Management education across the country was concentrating on skill development along with academic excellence and hence were striving continuously to provide education through a wide range of value added courses, curriculum and pedagogy. Classroom teaching learning included a wide range of activities such as case study analysis, management games, video analysis, use of Ted Talks, role plays etc. for curriculum delivery and was extensively extended through the usage of the following methodology:

- a) Orientation & bridge Course: An initiative of the management institutes to help students from all walks of life to smoothly transit into the management education scenario and instill confidence among them.
- b) Student Seminars & Presentations: It is specifically designed to identify and develop the cognitive abilities of students. It also serves as an instructional techniques involving student participation and interaction.
- c) Live Projects: These opportunities make management education transcendental in nature, as it provides real-time experience for a short period of time. It certainly benefits students in understanding the nuances of work life and also helps them develop employability skills.
- d) Project Reports: Undertaking project reports by students on various topics enables them to achieve insights on the chosen topic and provides a clear understanding in their chosen field.
- e) Industry Internships: Industry based internships helps students in gaining real time experience along with an in depth understanding of various challenges and probable solutions.
- f) Participation in Sports & Cultural Activities: Student participation in cultural activities contributes towards their holistic development and contribute towards balancing of stress in student life.
- g) Organising & Participation in Management Fests: Continuous involvement in management fests provides a great platform to exhibit confidence, decision making and that students possess and participating in external fests helps them showcase their talents.
- h) Outreach & Extension Activities: These activities provided for a holistic development of the students personality and helped them in strengthening universal human values and at the same time accommodated teaching -learning in an unstructured format. Extension activities inculcate social values and responsibilities among students and create awareness about social issues.
- i) Industry – Academia Nexus: Collaboration of this nature is the catalyst to explore the alternatives available for solving realtime issues. Though combining industry -academia forces can have its own challenges, the experience is astounding for students.
- j) Mentoring & Counselling: Mentoring and counselling have become the pillars of management education. Teachers in management institutes have been nurturing students through the mentoring and counselling sessions, to be future ready. They not just learn from experience of the mentors but have a constant guiding light to help them focus on their goals.
- k) Skill Enhancement Activities: Through these activities, students become more competent and confident to follow their dreams.
- l) Examinations: Conduct of examination for students is like the litmus test of teaching-learning. It examines not just the theoretical knowledge of various concepts learnt by students but also inculcates a sense of competition and a feeling of achievement upon successful completion of the same.
- m) Accreditations: This propels education institutions to strive hard in order to maintain high quality standards in imparting education. It authenticates the quality of work and ensures best practices in all forms.
- n) Pre-Placement Training: From training students in corporate etiquettes and soft skills to coaching them in cracking aptitude -reasoning test and interview skills pre-placement training plays a vital role in enabling enhancement of placement prospects of the students for all institutions.
- o) Campus Placement: creates a long standing relationship between the company and the institute; at the same time it creates opportunities and possibilities for the student to scale greater heights.
- p) Participation in Conferences: It facilitates learning

and creates a platform for showcasing the talents such as their capacity to plan, organize and implement along with team work, leadership skills and multitasking ability of students.

- q) Participation in FDP/MDP: Teachers participation in FDP/MDP enables them to identify the learning objectives and adapt to the changing needs. It also enables them to improve efficiency of delivery and ensures quality education.

Management Education Delivery Process After the Pandemic

According to AICTE academic guidelines (2020), all institutions were instructed to start classes for existing students and new students as per the academic calendar released by it in online mode only. Educational Institutes can shift to offline or classroom teaching only after necessary directives are issued by the MHRD in this regard. To prevent the loss of an academic year by students, MHRD soon directed academic institutes to impart education and continue with the teaching learning process using multiple modes of communication and technology such as the internet calls, SMS, email, E-learning platform and so on, which may not prove to be as effective as claimed by many B-schools. Internet tools have impacted the monitoring, personalized feedback and referrals (Mangunkusumo, 2006), but are yet to establish it as one of the effective modes of teaching and learning. In support of this statement, the results of a survey conducted by Tamajyan in (2008) have revealed that there is a change in attitude towards online learning and students are mentally prepared to participate in e-learning. Some professors also demonstrated positive attitude and learning towards technology as they believed that positive changes are important for both students and teachers. A survey report published by Campus Technology (2020) states that higher education's current shift to online learning may leave a sour taste in the mouths of students and faculty across the country if not done right but every cloud has a silver lining.

Identification Of Opportunities And Challenges – An Analysis:

All educational institutions the world over are impacted by the ongoing pandemic i.e. COVID-19. This pandemic has created the most disastrous effect on the teaching learning process in India in particular where substantial importance is given to the bond shared between the teacher and students. Online learning has come to play just in time as the magic bullet. Can online teaching take over the traditional method of Face to face teaching learning and emerge as winners with equally substantial outcomes, only time will tell. But what we have already realized is that it has opened the pandoras box for education institutions.

Intervention of technology in education has unveiled a plethora of opportunities to create a competitive edge for institutions that intend to dive through the abyss. Educational institutions are trying to come to terms with the guidelines issued by the local authorities, Affiliating Universities, AICTE, UGC, State & Central Government on the Online teaching methodology along with social distancing norms. Online & Blended mode of teaching-learning, flipped classrooms and computer mediated activities with the use of artificial intelligence, though very rosy in picture has its own challenges. On the one hand it is considered to be easily accessible and teachers can reach out to remote areas as well. On the other hand there are serious questions raised on the affordability of internet packages, flexibility in conducting and attending online sessions and teaching-learning pedagogy along with the lack of human interaction that is contentious in online mode of learning. Lack of human interface, access to technology, changing role of teachers in a technology driven world, affordability of tools required for online teaching-learning, locus of control & participation in online classes are some of the challenges associated with it. However that is just one side of the coin. On the other side we have a horde of opportunities opening their doors wide and waiting to be utilized. A number of new technological interventions have created a new platform for teaching learning, post COVID-19. Online education is not just creating ease for the learner but also gaining recognition among the employers. Online distance education are getting their due recognition among all stakeholders and is here to stay. The penetration of internet had facilitated distance education, 4G & 5G at affordable prices have now set the momentum for a technology friendly teaching learning environment.

Conclusion

The deadly COVID-19 pandemic has been a major game changer for all educational institutions and MBA institutes are not an exception. Several MBA institutes have in fact very gracefully adapted to the changes and converted multiple challenges into meaningful opportunities that has resulted in total transition of the management education process fuelled by online teaching. The findings of this research paper can be fruitfully used by researchers intending to do empirical study on the impact of COVID-19 pandemic on online teaching and contribute more meaningfully to this area of research.

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Relationship Between the Job Stress and Factors Influencing Stress Among Women

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Dr. UmaRaman. M**

Abstract

Women in India play a vital role in both family and Workplace. Women prove to be the best in all their ways. Behind every success of women, they hide a big struggle story. Changing role of women and they also maintain a traditional household ethos. The study carried to find out the relationship between job stress and the factors causing job stress for working and non-working women and the Relative difference between working women and Non-Working Women, coping methods to balance both work stress and Family. There are various factors influencing stress for women like workplace stress, personal and family stress. Examples of workplace stress are no proper recognition, personal stresses are Pessimistic Attitude and the family stresses are Anxiety about children's future. Women exposure their talents and wanted to use the opportunity for job in the right place. Working women tries to balance both job stress and families and tries to succeed in their life. A study carried with 110 working women and simple random techniques has been applied and concluded that there is no significant relationship between the Working women feel more stress than Non-working women with regards to the age of the employees.

Keywords: Personal stress, Workplace stress, Family Stress, Pessimistic Attitude, Proper Recognition, Anxiety.

Introduction

The Industrial revolution in a part was fuelled by the necessity of women. Women are mostly willing to find a job which is comfortable and within their domestic location. Most of the women were working in sectors like Teaching, Textile, and in domestic services. After Independence women found a long way to prove themselves to be the best. They started to find their carrier in all the sectors equal to men. In today's busy life, both men and women are working to take the balance of their life. It is not quite easy to tell that all the jobs are stress less. Most of the jobs are filled in all the sides with the term called stress. It is not an exception for the women to escape from the stress. The factors influencing stress is different from working and non-working women but both are stressed. All the life's is not same as the life is not a heaven.

What do you mean by Stress?

We all live in stress filled life. Stress is starting from our childhood age itself but the volume of stress is different in terms of all the ages. Stress occurred in the job is because when we hold additional responsibilities, taking two or more jobs, and this gives frustration. The frustrated employees are waiting for the opportunities in search of another job and thus increase unemployment. These strains make us stressors. The Stressors are uncontrollable and tolerable pressures. Much of the stress research are in the characteristics which contribute stress are role conflict, role ambiguity, underutilization of skills. This study focuses on finding the factors which gives stress for working women and in comprising with the non-working women.

The term Stress is associated with both physical and Psychological relations. The Physical stress is directly

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linked with the problems like headache, increase of weight, hair loss, Back Pain, Skin and Hair Problems. The Psychological stress linked with the problems like change of behavior, hyper tension, Depression/ Anxiety. Stress can be positive or negative. Positive stress is also known as Eustruses, Negative stress is also known as distress.

Factors causing stress for working women

Work place Stress

- Generation gap problems
- Additional Works in job
- High Work load
- No Proper Recognition
- No Proper timing

Personal Stress

- Pessimistic Attitude
- Low self confidence
- Lack of assertiveness
- No Growth
- Low Salary

Family Stress

- Financial Problems
- In laws Troubles
- Lack of Family support
- Anxiety about children's future
- Neighbor problems

Review of Literature

Nelson 1985, most of the working women gets stress in their job is because of the lack of organizational support and the non-traditional roles. This leads to get social isolation stress and it is continuous in nature.

Jick and Mitz 1985, the consequences of stress for women in their workplace shows the symptoms like high rate of psychological distress, minor illness, and more physical illness.

AL-Hussami, 2008, Occupational stress is caused and based on the chronic stress workplace stress and that affects both the performance of women in job and family.

Abdullah et al., 2008, Frone, Russel and Cooper 1997, Work based problems will lead to depression, physical health problems and hypertension.

Sadiq and Ali 2014, working women are more abnormal, anger and hostility than the non-working women. Both working and non-working women are different in the variables of insomnia and depression. Most

of the dissatisfaction with job and family is due to the insufficient time to perform the work and energy to complete the given task.

Barnett & Baruch, 1985, Barnett & Marshall, 1992; Roskies & Carrier, 1994, the financial problems of the family can be met by the working women. Housewives will get an experience of lack of satisfaction, boredom and feeling worthlessness when they could not able to support the family in terms of financial needs. The problem becomes seriousness when they are omitted from the family since they are not working. Working women will get an opportunity with positive energy and support their family.

Bhadoria 2013, Working women are more optimistic but the non-working women are pessimistic in nature. Most working women suffer from fatigue as compared to non-working women. Working women is busy in nature and will continue to be busy in their routine work but non-working women feels dislike and self-centered.

Objective of the study

1. To examine the factors causing stress for Working Women.
2. To identify the relative difference between working women and Non-working Women.
3. To suggest the coping methods to balance both work stress and family.

Methodology

The study was conducted among the working and Non-working women in Tiruppur city. The Sample consists of 110 respondents. The study was based on both the primary and secondary data. Percentage Analysis, Weighted Average Method and Mean scores and Chi-Square Analysis was used. The Percentage Analysis method is used to find the number of respondents with regards to their age, experience and area of living. The Weighted Average method is used to find which factors gives them highest to lowest level of stress and the chi-square is used to find the relative difference in terms of analyzing the relationship between the stress among working and non-working women with their respective age of the respondents.

Data Analysis and Interpretation

Descriptive Analysis

The descriptive analysis is used in this study to find the number of respondents in each category and their percentage level. The table 1 shows that the number of respondents belongs to different age groups and they are also different in their experience and the area of living or staying.

Table 1: Showing the demographic profile of the respondents

Demographic factors		Percentage
Age	18-26	17
	27-36	40
	37-46	19
	47-56	15
	Above 56	8
Experience	Below 2 years	21
	2-4 years	44
	4-6 years	16
	6-10 years	7
	Above 10	12
	Rural	25
Area of living	Urban	56
	Semi-urban	19

Source: Survey data

Inference: From the above table, it shows that 17% of the respondents are in the age group between 18-26, 40% are in the age group between 27-36, 19% are in the age group between 37-46, 15% are in the age group between 47-56 and 8% are above the age group of 56. 21% are having an experience of below 2 years, 44% are having an experience between 2-4 years, 16% are having an experience between 4-6 years, 7% are having an experience between 6-10 years and 12% are having an experience above 10

years. 25% of the respondents are living in rural areas, 56% are in living in rural areas, 25% are in urban areas and 19% are in semi-urban areas.

Weighted Average Method

The weighted mean is calculated by multiplying the probability in association with the particular outcomes. It is very helpful in finding the category with the weighted scores and thus ordered in terms of their ranking

Table 2: Satisfactory Ranking given by respondents with regards to the Work Place Stress

Workplace stress	SA	A	N	DA	SDA	Weighted Average	Weighted Score	Rank
Generation gap problems	14	11	9	11	5	168	11.2	4
Additional Works in job	25	6	9	7	3	193	12.86667	1
High Work load	23	11	3	7	6	188	12.53333	2
No Proper Recognition	17	6	9	11	7	165	11	3
No Proper timing	14	8	9	14	5	162	10.8	5

Source: Survey data

Inference: The Above Table clearly shows that, 11.2 weighted scores with 4th was given to generation gap problems, 12.8 scores with 1st rank was given to additional works in job, 12.5 with 2nd rank scores was given to high workload, 11 scores with 3rd rank

was given to no proper recognition and 10.8 scores with 5th rank was given to no proper timing. The Additional works in job gives high workplace stress and less satisfied with the timing of work

Table 3: Satisfactory Ranking given by the respondents with regards to the Personal Stress

Personal stress	SA	A	N	DA	SDA	Weighted Average	Weighted Score	Rank
Pessimistic Attitude	14	6	9	9	12	151	10.06667	5
Low self confidence	25	11	7	3	4	200	13.33333	2
Lack of assertiveness	17	6	14	9	4	173	11.53333	4
No Growth	24	12	4	5	5	195	13	3
Low Salary	19	24	3	1	3	205	13.66667	1

Source: Survey data

Inference: The Above table 3 clearly shows that, 10.06 weighted scores with 5th rank was given to Pessimistic Attitude, 13.3 scores with 2nd rank was given to Low self-confidence, 11.5 scores with 4th rank scores was given to Lack of Assertiveness, 13

scores with 3rd rank was given to no salary and 13.6 scores with 1st rank was given to Low salary. Low salary earned in their job gives high Personal stress and less satisfied with the Pessimistic attitude.

Table 4: Satisfactory Ranking given by the respondents with regards to the Family Stress

Family stress	SA	A	N	DA	SDA	Weighted Average	Weighted Score	Rank
Financial Problems	15	13	9	11	2	178	11.86667	2
In laws Troubles	11	8	14	9	8	155	10.33333	4
Lack of Family support	28	21	1	0	0	227	15.13333	1
Anxiety about children's future	14	21	13	2	0	197	13.13333	3
Neighbor problems	14	7	4	13	12	148	9.86667	5

Source: Survey data

Inference: The Above Table 4 clearly shows that, 11.8 weighted scores with 2nd rank was given to Financial Problems, 10.3 scores with 4th rank was given to in laws troubles, 15.1 scores with 1st rank was given to Lack of Family support, 13.1 scores with 3rd rank was given to the Anxiety about children's future and 9.86 scores with 5th rank was given to Neighbor Problems. Lack of Family Support gives high Family stress and less satisfied with the Neighbor Problems.

Hypothesis testing through Chi-Square

H0: Working women feel more stress than Non-working women with regards to the age of the employees.

H1: Working women do not feel more stress than Non-working women with regards to the age of the employees.

Table 5: Hypothesis testing through Chi-Square

OI	EI	O _i -E _i	O _i -E _i
6	4.490909	1.509090909	2.277355372
4	2.763636	1.236363636	1.528595041
6	4.663636	1.336363636	1.785867769
2	3.454545	-1.454545455	2.115702479
1	3.627273	-2.627272727	6.902561983
5	8.272727	-3.272727273	10.7107438
2	5.090909	-3.090909091	9.553719008
9	8.590909	0.409090909	0.167355372
9	6.363636	2.636363636	6.950413223
10	6.681818	3.318181818	11.01033058
6	4.490909	1.509090909	2.277355372

OI	EI	O _i -E _i	O _i -E _i
3	2.763636	0.236363636	0.055867769
2	4.663636	-2.663636364	7.094958678
5	3.454545	1.545454545	2.388429752
3	3.627273	-0.627272727	0.393471074
2	3.072727	-1.072727273	1.150743802
4	1.890909	2.109090909	4.448264463
2	3.190909	-1.190909091	1.418264463
2	2.363636	-0.363636364	0.132231405
3	2.481818	0.518181818	0.268512397
7	5.672727	1.327272727	1.761652893
3	3.490909	-0.490909091	0.240991736
8	5.890909	2.109090909	4.448264463
2	4.363636	-2.363636364	5.58677686
4	4.581818	-0.581818182	0.338512397
Total		85.006	

Source: Survey data

The table 5 value of chi-square tends to be 21.026 at 5% level of significance. The table value is 21.026 and is lesser than the calculated value 85.006. So Accept Null Hypothesis and reject Alternative hypothesis. So there is no significant relationship between the Working women feel more stress than Non-working women with regards to the age of the employees.

Recommendations and Conclusions

Our finding reveals that 40% are in the age group of 27-36, 44% are having an experience between 2-4 years. Additional works in job gives high workplace stress and least satisfied with the timing of work. Low salary gives high personal stress and least satisfied with the pessimistic attitude. Lack of family support gives high family stress and least satisfied with the neighbor problems. There is no significant relationship between the Working women feel more stress than Non-working women with regards to the age of the employees.

Balancing both family and work is a key role for women in their life. Accepting job responsibilities and fulfilling the family requirements is key success of women. Proper planning at work and family will help to reduce the family and personal stress, not carrying the official works at home, discussing their role and responsibilities of job with their family members, spending more time with their family will help to balance both job and family.

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Book Review

Change makers by Venky Vembu

Published by: (Series Editor)-The Hindu-Business line

Published in: 2020

Pages: 129 (Hardcover)

Language: English

ISBN: 978-93-87791-64-0

About the Author

The annual Business line Change maker awards are given to different trends setters and change makers of India. The editorial team has instituted Business line Change makers Awards from the year 2018 to celebrate pioneering agents of change who have demonstrated uniqueness in transformation of the life's of the people. Venky Vembu is a series Editor, The Hindu -Business Line who has compiled in brief the life achievements of individuals, organization, society and the economy at large.

Appreciation and Critique

The life stories of well-known innovators and pacesetters are being narrated along with information of their accomplishments, modifications brought into the life of millions of people by a handful of Change Makers. The book highlights the dramatic change and revolution that has taken place in the life of various individual's as well as that of the society over decades. In this book the editorial team has brought out the opinions of individual change makers and composed them in briefly. The chapter starts with a narration on the life of Dutee Chand a female sprinter 100m race and her achievement to be qualified for Olympic from a rural part of Odisha. The next one describes the success story of Indian Space research Organisation (ISRO) frugal Innovation and its contribution towards space research and an Rs.450Crore Mangalyaan Project. The next chapter narrates the steps taken by the Government and the Goods and Services Tax (GST) council through its "The Consensual politics" and introducing breakthrough changes in Taxation.

The chapter also had Supreme Court's land mark judgment given in the year 2018 read down the Section



377 of Indian Penal Code there by the fellow LGBT citizens can live a life with dignity, respect, equality, life and personal liberty and freedom of expression.

The financial trends brought in by the Unified payment Interface in managing payments systems in India and the support UPI has established by facilitating the Bank to Bank payments as a major change maker of the growing economy is another achievement for India is being described.

The book also has narrative on the struggle of Murugananthan Arunachalam who designed a small sanitary pad making machine which will bring in a dramatic change in the life of women across India

The success story of Dr. Rani and Dr. Abhay Bangs in handling the infant mortality rate in Gadchiroli district of Maharashtra is exquisitely recounted.

The author has considered the contribution of the youngsters like Rashid K, Vimal Govind, Nikhil NP and Arun George who have brought out innovated device known as Genrobotics Bandicoot which help the Sewage workers in cleaning the sweaters thereby ensuring the sanitation and good health for these

workers.

As a Ongoing narration of young change makers the book also has information on the life of a 17 year old youngster Pradeep Mewada who brought a change in the life of People of Raipur Nayakheda Village in Bhopal. Highly motivated individual would wake early morning before sunrise and would dispatch few fellow teenagers in smaller teams across villages, to confront the villagers who would be defecating in the open spaces.

The book also narrates the life of a born blind entrepreneur Srikanth Bolla, the disability, struggle to overcome all obstacles and his journey to become the founder of Bollant Industries limited which employees disabled people.

There are 23 success stories which have significantly made modifications in the life of millions of people in India. Each of the chapter is a contribution of an author which has been compiled by the editorial team in a simple narrative style. This book is first of its kind to highlight the change makers who were highly motivated not for personal glory, but as a sense of doing some transformations in the society. Even though their area of achievement was meant to be commercially driven, the pioneers desired to take it as socially responsible and uplifting mission.

Prof. Anitha BM Dsilva

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Book Review

Being You: Against All Odds

By Preethi Rai

Published by: Ekalavya Education Foundation,
Ahmedabad-380006, India

Published in: 2020,

Pages: 216

Language: English

ISBN: 978 93 81148 12 9

Authors' profile

Preethi Rai is the author of the book *Being You: Against All Odds*. As an author, this is her debut book. The book's stories have been read by 12 million people and have been covered by all major news outlets.

Preethi is inspired by Real-life heroes and encourages her readers to focus on achieving their goals despite the odds.

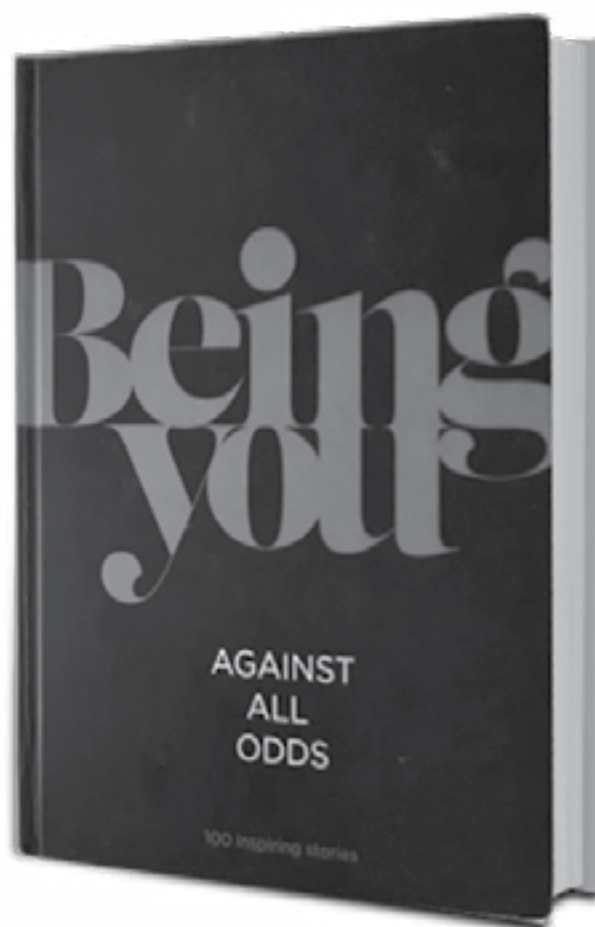
Preethi is also a cofounder of Millian Smiles, a non-profit organisation, and she recently completed a project called Raising Above, a Glamour Calendar of Amputee Athletes and Artists. She is a social activist who wants to highlight the beauty of amputated limbs rather than using them as a source of inspiration.

Appreciation and Critique

'Being You' is a very unique and a beautiful book. This book comprises of a hundred different stories of people who conquered all of life's odds to live a happy and normal life.

Each story is complemented by an artfully shot photograph which captured the essence of the individual featured. The best element of the book is that each page has its own plot, which can be a flaw because it lacks coherence.

In 2006, Preethi once met Salma Shafeeq Ghorri, a martyr's widow in a uberpool ride, who narrated her journey of being a wife of an Army at age of 19 to widow of a Martyr. Salma mentioned that she didn't wash her husband's uniform for more than 8 years even after his death as she wanted to hold back the feelings, the more Preethi heard the story, the more she realised that it is a story that deserved to be heard by more people. That is how the author began compiling stories of heroes from all across India and came up with the book *Being You*. The book tells the stories of people from various walks of life, from military



combatants to Martyr families, Padma awardees to National Awardees, movie stars to common heroes in a narrative style.

The book begins with an uplifting story about a transgender man's fight for acceptance by his family and society as he rises to fame as a drag queen. And it continues with covering the painful journey of cancer activists, the haunting poverty of young entrepreneurs, the story of an entrepreneur who converts obstacles as an opportunity, the aspirations of artists, the tragic of paraplegic, motivation of parathletes, struggle of single parent, abuses faced by Nun, a son fighting with the societal norm to get her mother remarried, a story of freedom fighter spending his young age at the jail, fighting for LGBT rights and societal acceptance of homophile and many more to write.

The compassion of those who pursued traditional professions such as Jogappas, local folk dancing, and sulagitti is also covered in the book. There are narratives about Padma recipients like Salumarada Timmaka, Milka Singh, Sulgatti Narsamma, Kadri Gopalnath, and others achieving distinction in their respective fields.

This book is a collection of living inspirations that young brains should read since it will teach them essential life lessons. Each narrative aids in the development of readers mind and assists the reader in comprehending the surrounding issues so that they can act toward on the unjust societal norms.

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