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A STUDY ON MARKETING STRATEGY OF NANDINI MILK WITH SPECIAL REFERENCE TO TUMKUR MILK UNION LIMITED

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HEAD

DEPARTMENT OF COMMERCE

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TUMKUR**

ABSTRACT

The present study is an attempt to understand the marketing strategies adopted in TUMUL, pricing strategies, product quality strategies, effectiveness of promotional strategies, advertising strategies etc, in order to recognize the potential customers and their opinion about Nandini milk and milk products which helps in developing the products in better way. The main objective of the study is to understand the customers' opinion about the milk and milk products. Other objectives include understanding the marketing strategies adopted by the company, reasons for brand preference, effectiveness of promotional strategies, satisfaction level of customers and their suggestions. This study also serves as guidelines for the respective company. The research method used in the study is Descriptive research method. The data was collected from the customers of TUMUL through personal interview using structured questionnaire. The population for the study is customers of TUMUL and the size of the sample is 100. The data for the study was collected according to the convenience of researcher. From the study it is found that, customers came to know about Nandini milk through advertisement and have chosen TV advertisement as the best promotional strategy which influences them most while purchasing product like milk. The packaging of the product is good and also availability of the product is good. The price of the product is high as compared to competitors. Overall, the customers are highly satisfied with the milk and milk products of TUMUL. TUMUL can increase its sales through various promotional strategies and adequate advertisements. The company has maintained good quality; it should be maintained same in future also. It can adopt any new marketing strategy to give all time supply to retailers. TUMUL should approach the state government through proper channel for enhancing ksheera bhagya scheme to the school children for increasing its revenue. Consumer awareness programmes have to be conducted regularly to make them aware about the goodness of consuming Nandini brand milk and milk products, so that consumers do not shift to other brands. Thus, TUMUL can adopt various strategies to satisfy its customers and fulfill their expectations and requirements because marketing strategies plays a vital role in increasing the company growth and cater to the needs of customers which results in gaining competitive edge.

KEYWORDS

Nandini milk, TUMUL, milk products.

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1. COMPANY INTRODUCTION

The Tumkur Milk Union registered as "Tumkur Co-operative Milk Producers Societies Union Limited" under registrar of Co-operative societies act on 27th June 1977. The dairy co-operatives were established under the ANAND pattern in a three tier system. Formation of Village Level Dairy Co-operatives societies at village level, Milk Unions at District Level to take care of the procurement, processing and marketing of milk and Federation at state level to co-ordinate milk movement and marketing at the State level.

At present 1115 MPCs are functional. New societies will be organized in the uncovered areas based on milk potentiality, surplus and taking the cost of milk transportation. There are about 206 milk collections centers are working in the milk shed. These collection centers will be converted into societies. To encourage women members, every year it is planned to organize 60 societies. As at the end of June-2016, the Union has 1179 registered DCS and 1160 commissioned DCS. Out of which, 1115 are functional. There are 265 exclusive women DCS functioning. The marketing area includes entire Tumkur district and a small part of Bangalore urban and rural districts. The Union sells varieties of milks i.e. Toned Milk, homogenized toned milk, Homogenized Cow Milk, Samruddhi Milk and Shubam Milk. The other range of the products being manufactured and marketed includes Butter Milk, Curd, Ghee, Mysore Pak and Peda. Besides this, the Union sells all the products produced by Nandini Milk products, a unit of K.M.F. The Union is increasing its market share steadily. The present aggregate growth rate works out to be around 6% for the past 5 years. At present, we are marketing 2.34 lakh litres per day.

As on June-2020 the total Members enrolled was 261230. Out of which 105950 are Small farmers, 65000 are Marginal farmers, 40000 are Landless labour and others 50280. Out of Total Membership 76900 are women members, 25500 Schedule caste and 20720 are the Scheduled Tribe members.

2. OBJECTIVES OF THE STUDY

1. To understand the Marketing strategy of Nandini milk.
2. To identify the reason for preferring specific brand.
3. To understand the effectiveness of promotional strategies adopted by Tumkur Milk Union Limited for making customers loyal.
4. To identify the most preferred brand of milk.
5. To know the level of satisfaction of customers.
6. To provide valuable suggestions for successful marketing strategy.

3. RESEARCH DESIGN AND METHODOLOGY

STATEMENT OF THE PROBLEM

On the basis of the information given by the assistant marketing manager, the sales of Nandini is constant from few years, and there is no great amount of increase. And even customers of Nandini milk are not loyal as per the expectation of the organization. They keep on changing their preference of brand on purchasing Milk.

SCOPE OF THE STUDY

The study assesses the marketing strategies for NANDINI milk. The study has to be conduct among the people of different culture, profession and age groups. The study also covers consumers of various brands of milk, which reveals their preference of NANDINI milk, comparing and cons of trading NANDINI milk with its competitors helps to bring out suggestions and what people expect more from NANDINI milk.

LIMITATIONS OF THE STUDY

- The study is conducted with the assumptions that the information given by the respondents as correct.
- Due to time constraint the sample size is restricted to 100 respondents.
- The method selected is time consuming.
- Consumer preferences always fluctuate when the time passes, so this project may be invalid in future.
- Study is limited to only potential area of Tumkur city due to limitations of time.

RESEARCH METHODOLOGY

To gather the information for fulfilling the objective of the research, descriptive research was conducted. Descriptive study wants to portray the characteristics of individual or situation. Primary source of data is obtained through structured questionnaire. 26 questions were asked. Among which 24 questions were close ended and 2 were open ended questions to the consumers using Likert five-point scale and three-point scale, it has been used to explore the information about promotional strategy and opinion based questions are used to gather information about different parameter such as packing, quality, price and marketing activities.

SOURCE OF DATA

Primary source of data is obtained through structured questionnaire; 28 questions were asked to 100 customers who are consuming various brand of milk in different retail stores of Tumkur.

Discussion with marketing manager, Assistant marketing manager and with employees in Accounts section.

TOOLS AND TECHNIQUE

Sampling Instrumental techniques, such as percentages for generalizing table for analyzing the charts were used in this study.

SAMPLE SIZE

To collect the information, 100 customers are randomly selected from the total population of very huge amount of customers, based on the convenience sampling method depending on the time and location pertaining to the customers.

CONTACT METHOD

The contact method included personnel interviewing with the help of questionnaires.

SAMPLING METHOD

Sampling Technique: Convenience random sampling is done by distributing the questionnaire to respondents home itself and collected back after 1 day.

Instrumentation Technique: Sampling instrumentation techniques such as percentages for generalizing tables for analyzing the charts as pictorial understanding were used in this study.

4. DATA ANALYSIS AND INTERPRETATION**TABLE 1: AGE GROUP OF THE RESPONDENTS**

Description	No. of respondents
Below 20	13
20-30	21
30-40	25
40-50	20
Above 50	21
Total	100

Source: Primary Data.

Interpretation: Among 100 respondents, 13% are of Age group below 20 years, 21% respondents are of age group 20 to 30, 25% of respondents are of age group 30 to 40, 20% of respondents are of age 40 to 50 and 21% of respondents are of age group Above 50 years. Most of the respondents are of age 30 to 40 years (25%).

TABLE 2: THE WAY IN WHICH RESPONDENTS ARE AWARE OF NANDINI MILK

Description	No. of respondents
Advertisement	62
Friends	4
Brand familiarity	34
Total	100

Source: Primary data.

Interpretation: Among the 100 respondents surveyed, 62% of respondents are aware about Nandini milk through advertisements, 4% of respondents are aware about Nandini milk by friends and 34% of respondents are aware about Nandini milk by brand familiarity. Most of the respondents are aware about Nandini milk through advertisements (62%).

TABLE 3: AMONG THE PROMOTIONAL STRATEGY WHICH INFLUENCES THE MOST WHILE CHOOSING PRODUCT LIKE MILK

Description	No. of respondents
TV Advertisement	49
News papers	32
Hoardings (bill board)	19
Total	100

Source: Primary data.

Interpretation: Among the 100 respondents surveyed, 49% of respondents choose TV advertisement as the best promotional strategy for the product like Milk, 32% of respondents chooses Newspaper as the best promotional strategy for the product like milk and 19% of respondents chooses Hoardings as the best promotional strategy for the product like milk. Most of the respondents choose TV advertisement as the best promotional strategy for product like milk (49%).

TABLE 4: RESPONDENT'S OPINION ON PACKING OF NANDINI MILK

Description	No. of respondents	Percentage
Good	29	49%
Bad	2	3%
Average	28	48%
Total	59	100%

Source: Primary data.

Interpretation: Among 59 respondents surveyed, 49% of respondent's opinion on packing of Nandini milk is good, 3% of respondent's opinion on packing of Nandini milk is Bad and 48% of respondent's opinion on packing of Nandini milk is Average. Most of the respondent's opinion on Nandini milk's packing is Good (49%).

TABLE 5: RESPONDENT'S OPINION ON PRICE OF NANDINI MILK

Description	No. of Respondents	Percentage
Affordable	9	16%
Reasonable	20	34%
High	23	39%
Low	2	3%
Encouraging	5	8%
Total	59	100%

Source: Primary data.

Interpretation: Among the 59 consumers surveyed, 16% of respondent's opinion on price of Nandini milk is Affordable, 34% of respondent's opinion on price of Nandini milk is reasonable, 39% of respondent's opinion on price of Nandini milk is High, 3% of respondent's opinion on price of Nandini milk is low and 8% of respondent's opinion on price of Nandini milk is Encouraging. Most of the respondent's opinion on price of Nandini milk is High (39%).

TABLE 6: RESPONDENT'S OPINION ON QUALITY OF NANDINI MILK

Description	No. of respondents	Percentage
Lost for longer period of time	4	7%
Hygienic	29	49%
Easily perishable	0	0
Thickness of Milk	13	22%
Suitable for all sorts of consumption	13	22%
Total	59	100%

Source: Primary data.

Interpretation: Among the 59 consumers surveyed, 7% of respondent's opinion on quality of Nandini milk is lost for longer period of time, 49% of respondent's opinion on quality of Nandini milk is Hygienic, none of the respondent's opinion on quality of Nandini milk is easily perishable, 22% of respondent's opinion on quality of Nandini milk is thickness of milk and 22% of respondent's opinion on quality of Nandini milk is it is suitable for all sorts of consumption. Most of the respondent's opinion on quality of Nandini milk is it is Hygienic (49%).

TABLE 7: AVAILABILITY OF NANDINI MILK AT ANYTIME

Description	No. of respondents	Percentage
Yes	29	49%
No	30	51%
Total	59	100%

Source: Primary data

Interpretation: Among the 59 consumers of Nandini milk, 49% of them told that Nandini milk will be available at any time and 51% of the respondents told that it is not available at any time. Majority of respondents told that it is not available at any time (51%).

TABLE 8: SATISFACTION OF RESPONDENTS TOWARDS NANDINI MILK

Description	No. of Respondents	Percentage
Yes	55	93%
No	4	7%
Total	59	100%

Source: Primary data

Interpretation: Among the 59 consumers surveyed, 93% of respondents are satisfied with Nandini milk and 7% of respondents are not satisfied with Nandini milk. Most of the respondents are satisfied with Nandini milk (93%).

5. FINDINGS AND RECOMMENDATIONS

FINDINGS

- Most of the consumers of Nandini milk belong to the age group of 30 to 40 years.
- Majority of respondents came to know about Nandini milk through Advertisements.
- Most of the respondents choose TV advertisement as the best promotional strategy which influences them most while purchasing product like milk.
- Most of the Nandini milk consumer's opinion on packaging of Nandini milk is good.
- Most of the Nandini milk consumer's opinion on price of Nandini milk is high.
- Most of the Nandini milk consumer's opinion on quality is Hygienic
- Most of Nandini milk consumers have told that Nandini milk will be available at any time.
- Majority of Nandini milk consumers are highly satisfied with it.

RECOMMENDATIONS

- TUMUL can concentrate more on TV advertisement, according to respondents, it is best promotional strategy which influences most while purchasing product like Milk.
- Consumers are influenced by quality factor more while purchasing Milk, TUMUL has maintained good quality, it should be maintained same in future also.
- TUMUL should concentrate more on packing of Milk, because some of respondent's opinion on packing is average.
- TUMUL can adopt any new marketing strategy to give all time supply to retailers, where majority of non-satisfied Nandini consumer's opinion is that, it is not available when they are needed, especially in odd times.
- TUMUL should approach the state government through proper channel for enhancing Ksheera Bhagya scheme to the school children from 3 days to 5 days for increasing its revenue.
- TUMUL instead of supplying milk to some other states for making milk powder and butter, it should take necessary steps for establishment of their own plants for making milk powder and butter, so that it helps in generating employment opportunities and also increasing profits.
- As cost of production and distribution of milk and milk products increases continuously, it is advisable to increase the prices of milk and milk products from 3 to 5% every year.
- TUMUL is advised to innovate and introduce some new milk based products to satisfy the varied needs of the customers.
- Consumer awareness programmes have to be conducted regularly to make them aware about the goodness of consuming Nandini brand milk and milk products, so that consumers do not shift to other brands.

6. CONCLUSION

In current scenario, TUMUL (Nandini Milk) is one of the leading brand in milk and milk products in the market. Marketing strategies plays a very important role to gain competitive advantage.

From this survey, it was found that majority of the consumers are satisfied with the milk and milk products of TUMUL. The factors like quality, packaging, promotional strategy, advertisement, availability etc has helped in creating customer acceptance towards Nandini Milk products. As such, consumers expect the company to adopt desirable price strategy, receive and implement customer suggestions which thereby leads to higher customer satisfactions towards Tumkur Milk Union Limited.

Thus, it is concluded that by implementing best marketing strategies which includes pricing strategy, promotional strategy, packaging, quality etc., the TUMUL can gain more market share and become a market leader over its competitors.

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INFLUENCE OF FACTORS, BENEFITS AND BARRIERS OF OUTSOURCING: AN EXPLORATORY STUDY OF INDIAN BANKS

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ABSTRACT

This research paper is a comparative study of the factors, benefits and barriers affecting Indian banks' outsourcing decisions. Exploratory factor analysis was done using employees' perception to identify the perceived factors, perceived benefits, perceived barriers of outsourcing decisions, and a comparison between the public and private banks that have been done by using an independent sample t-test. Responses of 200 bank employees were collected, working as senior managers, branch managers in public and private banks in the National capital region of India. The study found that there was no significant difference in the perception of bank employees of public and private banks for better use of resources, capitalization on technological advancements, and cost-effectiveness, except for the strategic competitive advantage and better customer service. The study also found that there exists a significant difference in the perception of bank employees for reputational benefits of outsourcing. No significant difference was found in the perception of employees for competitiveness, profitability, and other benefits of outsourcing in public and private banks. Further, it was found that trust barriers and control barriers have a significant difference in the perception of employees of public and private banks in India.

KEYWORDS

outsourcing in banks, benefits of outsourcing, factors for outsourcing, barriers in outsourcing.

JEL CODES

G21, M10.

INTRODUCTION

Do, what you can do the best, Outsource the rest"

Peter F. Drucker

Outsourcing is a common practice adopted by various business firms to gain and maintain competitive advantages (Hanafizadeh & Zare Ravasan, 2018b). Outsourcing is a famous phenomenon among banks, where the activities which were usually performed by the bank itself are served by third-party vendors on a continuous basis in consideration of remuneration. (Gulla & Gupta, 2011a) These vendors work for the corporations for an agreed period of the contract, they might provide various business functions at cheaper rates. Outsourcing is considered as a strategic decision tool by the banks to remain competitive and to provide benchmark services. (Jain & Natarajan, 2011) Outsourcing decision has been affected by many factors like cost-saving, focus on core jobs, taking benefits of expert services (Gewald & Dibbern, 2009). In the developed countries like UK, USA, Germany, adoption of innovation, technological advancements, benchmark performance, excellent customer service, are the leading reasons for outsourcing. (Hanafizadeh & Zare Ravasan, 2018b). The present study is an attempt to explore the reasons for outsourcing in Indian banks. Further, it is aimed to identify the perceived benefits and barriers of outsourcing in banks. The study is also aimed to compare the Perceived factors, perceived benefits, and perceived barriers of outsourcing, amongst public sector banks and private banks.

"In India, the Reserve Bank of India (RBI) has issued guidelines in 2005 for the banks, which have outsourced or intending to outsource some of their functions to the third-party service providers, to allow sound and sensitive risk management practices for successful monitoring, due diligence, and risk management resulting from outsourcing activities. Banks have to make well-defined roles and responsibilities framework for the tasks to be outsourced, service provider selection, terms and conditions of the outsourcing and monitoring process, etc." (Pratihari and Uzma, 2019). Further, some clauses permit the Reserve Bank of India to access the book documents stored and processed by the service provider within a reasonable period. (Sengupta and Vardhan, 2017).

The concept to outsource business activities is nothing new to India, but it dates back to about 1990 when the country saw outsourcing emergence as a corporate decision. According to Aggarwal et.al. 2016, "the globalization brought in the non-regulated and large-scale adoption of technology, new generation private sector banks emerged after liberalization in the world of Indian banking due to which public sector banks in India (at that time using the same old conventional way of business) were exposed to high degree competition and challenges" (Agrawal et al., 2016a).

These new banks were armed with tools like Information and Communication Technology (ICT). It gave rise to a competitive tension between two sectors; public banks had to come with a solution, to overcome this challenge. Public banks in India felt a need for outsourcing which would solve their issue over technology adoption as well as cost reduction. Banks had to enter the outsourcing trend to enhance their competitiveness so that they can survive during the time of changing regulatory environment, rapid technological advancements, horizontal integration, and increased competition, by increasing their abilities to adjust quickly to the altering environment and to achieve higher ROA (Return on Assets). The adoption of outsourcing by banks offers benefits to banking sectors and the nation as a whole. The range of services that banks offer today is a lot more diversified than a few years back, due to the increasing knowledge of the customers. As of now, both types of banks are performing outsourcing, but the nature of activities outsourced by the public banks is non-core services, whereas the private banks are taking much more risk by outsourcing their partly core or knowledge-based and intellectual activities. (Hanafizadeh & Zare Ravasan, 2018a)

REVIEW OF LITERATURE

Creating value initially from outsourcing was a critical challenge in Indian banks. (Gulla & Gupta, 2011b) Building Large scale multi-city operations, partnerships provide an opportunity to amplify functions. Simultaneously, factors like maintaining quality and developing advisory potentials were remained essential for outsourcing vendors focusing to provide services to the banking industry. (Mohapatra et al., 2015)

There is some typical kind of outsourcing like IT outsourcing (ITO), which involves giving responsibility to an external service provider for managing specific applications for banks in India (Wolverton et al., 2020) The most common functions which are to be outsourced are network administration, Server management, availing isolated cloud centers, providing infrastructure solutions and software development and ITO. (Mohapatra et al., 2015) Such functions save banks time and money as well while providing flexibility when it comes to top data storage, product offerings, and speed of service. (Al Kurdi et al., 2020)

Business process outsourcing (BPO) is another common type of outsourcing. This is a strategic methodology to give a rest to inefficient internal operation functioning and instead of handing over entire business activities like digitizing, accounting, finance, recruitment, or customer service to a third party to manage (Singh and associates, 2020). Business process outsourcing offers efficiency to business functions and adds value to the business regarding gaining operational efficiency and cost reduction and is independent of economic cycles. (Ravi et al., 2011)

Outsourcing the CSR activities, Knowledge process outsourcing, are the new areas of outsourcing in addition to the traditional like IT/IS, BPO, HR, and marketing outsourcing. (Pratihari and Uzma, 2019).

REASONS FOR OUTSOURCING BY INDIAN BANKS

When banks first started paying attention to outsource non-strategic functions, such as IT maintenance, payroll, facilities management, and logistics, they aimed at cost-cutting. (Gulla & Gupta, 2011b) However, there is a comprehensive set of reasons why these banks regularly contemplate outsourcing core practices like enhancing operational performance; Engaging resources into useful and productive activities such as application re-engineering by saving the resources (Elhoushy et al., 2020), which in turn enables a firm to focus on time-critical projects; Reducing overheads and operating costs; freeing up human resources and training prices; (Ravasan, n.d.) Avoiding expenditure in terms of capital; Improving speed, service, and efficiency. (Ravi et al., 2011) Advancements in technology, a higher level of functional experience of service providers have led the banks to outsource their functions to third-party service providers (Singh and associates, 2020).

Benefits of Outsourcing

Indian banks are outsourcing for several years now and having the benefits of outsourcing as the third-party service providers are prevailing the services at much cheaper rates than the other countries due to the availability of skilled labour (Suryanarayan, 2011). "Countries like the USA outsource and offshore their business operations to the developing countries like India and China. In the USA a skilled developer would cost them 50\$ per hour or even more, whereas in India it is as cheap as 15\$ per hour. This difference promotes vertical expansion and domestic outsourcing in India and makes it one of the leading destinations for outsourcing in the service and manufacturing sector as well (Raushan and Khan, 2017). Banks have different benefits due to the outsourcing of different activities to different external service providers. (Elhoushy et al., 2020) Financial and costs benefits are often put forward as the reasons why organizations decide to outsource. Emerging patterns and trends indicate that today's outsourcing decisions are often motivated by factors other than cost (Singh and associates, 2020). When services or activities are outsourced, they are now executed by external experts, agencies. The external agencies take responsibility for executing the outsourced activity and perform to their best in the expectation of repeated orders. Organizations involved in outsourcing decisions need to be aware that certain resulting benefits from outsourcing may be short-lived given the rapid technology change. (al Kurdi et al., 2020) It might therefore be reasonable to outsource certain non-key functions while retaining the expertise to develop strategic information architecture and a suite of strategic systems that are capable of delivering competitive advantage. However, careful consideration of the implications resulting from the long-term loss of expertise and a periodic re-visit of the sophisticated notion of core competencies/business needs should be factored into the strategic and tactical planning. (Singh and associates, 2020).

Barriers of Outsourcing

Outsourcing has proved beneficial for the businesses considering the factors like usage of advancements in technology, experts performing the function, saving time and effort of banks inhouse employees, (Gewald & Dibbern, 2009) but it brings some risks and problems like the security of consumers personal data which is used by the service provider to execute the outsourced function, the level of integrity of service providers employees in maintaining the confidentiality of the shared data, secret bank information, assets, and other valuable resources. (Hanafizadeh & Zare Ravasan, 2018a) (Zhang et al., 2018); for a long time, Commercial banks in India are outsourcing different activities to different external firms due to different reasons and banks has experienced positive significant changes in their performance, yet the banks are facing problems and different types of barriers. (Cabral et al., 2014) The banks have to face problems like sub-standard delivery of services, non-timely performance, lack of coordination in bank and service providers employees, hidden costs, the difference in expected and actual performance, after outsourcing and during outsourcing even after having properly designed risk mitigation programs, performing due diligence while selecting service providers following the RBI guidelines in this regard. (Wolverton et al., 2020) Most of the literature is found fundamentally supporting the outsourcing decisions, (Dubey & Gupta, 2016) but several possible problems and concerns were not given much focus.

NEED AND IMPORTANCE OF THE STUDY

One of the major reasons behind conducting the present study is to understand the perception of employees of the banks regarding outsourcing. This research study is needed to understand the perception of bank employees who have to work with the employees of service providers. The success and failure of an outsourcing decision also lies in the cooperation of bank employees with the outsider's employees working in their premises and using their own resources, sharing the credibility of performance of a work and leaving the consequences of non-performance on the shoulders of bank employees. Present study is of utmost need to understand whether outsourcing helps in improving bank employee's productivity, helps them to focus on the areas of core competencies or just leave them in the fears of losing their own job and position in the bank.

STATEMENT OF THE PROBLEM

In the Indian banking sector, public sector and private sector banks have differences in ownership, management and control, and have difference methods of administration. Though both types of banks are following the outsourcing guidelines of Reserve bank of India, yet in the earlier studies it was found that the two set of banks have different approaches for outsourcing. The present study is of utmost importance to identify the differences in outsourcing practices of the public sector and private sector banks of India in present context.

OBJECTIVES OF THE STUDY

1. To identify the motivating factors affecting the decision of banks to outsource their few services or activities.
2. To identify the perceived benefits of outsourcing in Indian banks.
3. To examine the barriers faced by banks while outsourcing their functions and activities.
4. To examine the difference in the perception of employees of public and private banks for the identified factors, benefits, and barriers of outsourcing.

HYPOTHESES

The following hypotheses are examined:

Hypothesis 1: "There exists no significant difference between public and private sector banks with respect to the factors representing the barriers for the outsourcing of the activities."

Hypothesis 2: "There exists no significant difference between public and private sector banks with respect to the factors motivating them for the outsourcing of the activities."

Hypothesis 3: "There exists no significant difference between public and private sector banks with respect to the factors representing the benefits of outsourcing of the activities."

RESEARCH METHODOLOGY

The primary data was collected using a survey method with a questionnaire as a data collection tool. Indian Public sector banks and private sector banks were selected as target populations. The Geographical area of study selected was the National capital region of India. The sample banks were selected based on their market capitalization and a large number of branches in the NCR region of India. The perception of bank employees was taken on a 5-point Likert scale where they expressed their responses from strongly agree to strongly disagree towards the factors affecting outsourcing decisions. A sample of 200 bank employees was collected, which included the senior managers, deputy managers, branch managers, Junior managers, and senior clerks working in the sample banks, at branches located in NCR, India. The sample was taken from Punjab National Bank, State Bank of India, Bank of Baroda, HDFC Bank, ICICI Bank, and Axis Bank respectively as three from public sector banks and three from private sector banks. The respondents were asked which activities their bank is outsourcing and for how long they have been outsourced by the bank. 18 statements are included in the questionnaire indicating the different reasons for the outsourcing of the selected activities, 19 statements were included representing the benefits and 22 statements were taken as indicators of barriers of outsourcing in banks. The exploratory factor analysis (EFA) was applied to identify the factors, benefits, and barriers of outsourcing in Indian banks. An independent sample t-test was used to identify the difference in the results of public and private banks for factors, benefits, and barriers separately.

RESULTS & DISCUSSION

The responses are collected from the bank employees for how long their bank is outsourcing different activities. The frequency distribution of the number of years for which the bank is doing outsourcing shows that

TABLE 1: FREQUENCY DISTRIBUTION- HOW LONG HAS YOUR BANK BEEN OUTSOURCING FOR?

How long has your bank been outsourcing the activities?	Frequency	Percent
Less than 3 years	28	14%
4 to 6 years	43	21.5%
7 to 10 years	68	34%
More than 10 years	61	30.5%
Total	200	100%

Source: primary data collected

Activities Outsourced

The responses are collected from the bank employees for different banking activities outsourced. The frequency distribution of the activities outsourced of the bank is shown below:

TABLE 2: FREQUENCY DISTRIBUTION- ACTIVITIES OUTSOURCED BY THE BANKS

Name of activity outsourced	Yes	No
Credit card service (sales, billing and collection) & Credit collection	181 (90.5%)	19 (9.5%)
Supervision of loans	166 (83%)	34 (17%)
Cheque preparation and clearing	156 (78%)	44 (22%)
Backend operations (credit processing, corporate and trade services)	186 (93%)	93 (7%)
ATM Maintenance and Replenishment of cash in ATMs	188(94%)	12(6%)
The marketing of Credit cards and debit cards	197(98.5%)	3(1.5%)
The marketing of loan services	133(66.5%)	67(33.5%)
HR Audit Support	143(71.5%)	57(28.5%)
Recruitment, Training, and development activities	188(94%)	12(6%)
documents dispatch and collection	183(91.5%)	17(8.5%)
Website and mobile app development and technical support	193(96.5%)	7(3.5%)
Software development and maintenance	199(99.5%)	1(0.5%)
Management of Call centers for customer queries	183(91.5%)	17(8.5%)
Big data analytics	132(66%)	68(34%)
Financial and Investment research	102(51%)	98(49%)
Market Search	104(52%)	96(48%)
Data processing and back office-related activities	185(92.5%)	15(7.5%)

Source: primary data collected

The analysis of data is done through exploratory factor analysis taking bank employees' perception of the statements included in the questionnaire.

Factors Behind the Outsourcing Decision of Banks

Commercial banks in India outsource different activities to different external firms due to different reasons. In the present study, the adequacy of sample size is examined with the help of the KMO test whereas the correlation between different statements is examined with the help of Bartlett's test of sphericity. Table 1 represents the estimated values of KMO and Bartlett's test, as shown below:

TABLE 3: KMO AND BARTLETT'S TEST FOR FACTORS BEHIND OUTSOURCING DECISIONS OF BANKS

Kaiser-Meyer-Olkin (KMO) estimate of sampling adequacy		.85
Bartlett's test of sphericity	Chi-Square statistic	1646.22
	Degree of freedom	153
	P value	.000

Source: primary data collected

Table 3 depicts the KMO statistics 0.846 which is greater than the required value of 0.6 (Nunnally, 1967). This indicates that the sample size is adequate for factor analysis. The table reported that the Chi-square statistics estimated for Bartlett's test is found to be 1646.217 with the probability value of 0.000. Thus, the correlation matrix is not an identity matrix and the items included in factor analysis are significantly correlated.

The exploratory factor analysis represents (Table -4) that 18 indicating statements confirm five main factors of outsourcing. The EFA provides the five factors which are examined carefully and are named as

Factor 1: Strategic Competitive Advantage

Factor 2: Better Customer Service

Factor 3: Better use of resources

Factor 4: Capitalisation of Technological advancements

Factor 5: Cost-Effectiveness

TABLE 4: ROTATED COMPONENT MATRIX FOR FACTORS BEHIND OUTSOURCING DECISIONS OF BANKS

Statements including in factor analysis	Factor Loadings	Rotated Eigen Value	Variance Explained	Communnality	Factor Name
Improvement of brand image	.91	2.94	16.32%	0.85	Strategic Competitive Advantage
Focus on core banking business	.89			0.81	
Risk Management	.83			0.71	
Better services than competitors	.76			0.59	
Better overall customer experience	.83			0.71	
Advantage of expert services from outside	.81	2.31	14.85%	0.67	Better Customer Service
Improvement in the service quality for customers	.78			0.65	
Providing services effectively to a large number of customers	.77			0.61	
Effective utilization of bank resources	.80			0.65	
To access services unavailable inhouse	.75	2.30	12.83 %	0.58	Better use of re-sources
Lack of internal expertise	.71			0.56	
Effective allocation of Inhouse personnel	.71			0.54	
The benefit of advanced technology by the service provider	.86			0.77	
Better IT competences	.81	2.15	11.97 %	0.68	Capitalisation of Technological advancements
Reduction of risk of technology obsolescence	.81			0.71	
Saving of time by outsourcing the activities	.81			0.68	
Avoid recruitment of additional staff	.77	1.92	10.70 %	0.61	Cost Effectiveness
Cost-saving	.74			0.58	
Principal component analysis, varimax Rotation method, No. of iterations-6					

Source: primary data collected

The rotated sum of squared loadings of these five factors indicates that 66.68% variance can be explained combined with these five factors. It is worth noting that Improvement in the brand image (Factor loading=0.913) and focus on core banking business (Factor loading= 0.892) has the highest factor loadings than the other indicators, which means their contribution for the factors of outsourcing is higher than others. Though, all the indicators have shown the high factor loadings (More than 0.714), reflecting that all the indicators are contributing significantly to the factors of outsourcing as per the perception of bank employees.

The results indicate that banks face competition in giving better services than the others, the outsourcing of the activities results in ultimate competitiveness in providing better services than others. Outsourcing of the activities also provides the *risk management tools* which make the bank superior to the competitors. Outsourcing of the few selected activities also helps in improving the brand image of the bank and hence helps in gaining strategic competitive advantages to the banks. Cost-effectiveness is still found as an important factor for outsourcing decisions. The focus now is not only limited to save the costs, but it has been shifted to the effectiveness of costs incurred.

Benefits of Outsourcing Activities

Nineteen different statements indicating the different benefits of outsourcing of activities were identified from the existing literature and included in the questionnaire. The data analysis demands for sample size adequacy, which has been identified by using KMO and Bartlett’s test of sphericity.

TABLE 5: KMO AND BARTLETT’S TEST FOR BENEFITS OF OUTSOURCING

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.90	
Bartlett’s Test of Sphericity	Approx. Chi-Square	2071.74
	Degree of freedom	171
	P value	.000

Source: primary data collected

The result of the KMO statistics is found to be 0.902. The results show that the Chi-square statistics estimated for Bartlett’s test are found to be 2071.744 with a probability value of 0.000. Therefore, it can be concluded that the items included in the questionnaire to examine the benefits of outsourcing the activities are significantly correlated.

TABLE 6: ROTATED COMPONENT MATRIX FOR BENEFITS OF OUTSOURCING

Statements including in factor analysis	Factor Loadings	Rotated Eigen Value	Variance Explained	Communnality	Factor Name
Able to get Extensive branch network	.79	7.643	20.93%	.69	Competitive benefits
Easy access to loans	.77			.67	
Increase in customer base	.77			.63	
Key accounts held with the bank	.76			.64	
Given Superior customer service	.76			.68	
Outsourcing has Lower bank charges	.74			.67	
Bank’s positive reputation built is as a result of outsourcing	.82	2.027	18.07%	.71	Reputational benefits
More satisfied customers	.80			.70	
Lower employee turnover ratio	.75			.66	
Bank has been providing faster customer service.	.75			.66	
Considered as the all-round best bank by RBI	.74			.65	
Revenues are increasing every year	.82	1.940	14.82%	.74	Profitability benefits
Outsourcing has provided enhanced economies of scale in technological resources	.81			.73	
Effective recycling of funds	.75			.72	
Reduction in operating costs of activities that are outsourced as compared with the competitors	.71			.65	
Benefits on recruitment, training, and infrastructural development by outsourcing HR activities to the third party	.83	1.430	14.80%	.66	Other benefits
Overall Customer services being improved	.79			.67	
Reduction in operating costs of activities after outsourcing which were earlier done in house	.75			.75	
Internal organizational stability and flexibility in obtaining improved satisfaction	.72			.70	
Principal component analysis, varimax Rotation method, No. of iterations-6					

Source: primary data collected

The results of PCA and varimax rotation indicates that 19 statements can be explained with the help of 4 factors. 68.63% of the variance can be explained with the four extracted factors of the benefits of outsourcing. The four factors are named as follows:

Factor 1: Competitive Benefits

Factor 2: Reputational Benefits

Factor 3: Profitability Benefits

Factor 4: Other Benefits

The results indicate that all the indicator statements showed high factor loadings to the factors which reflect all indicators significantly contribute to the perception of employees for the benefits of outsourcing. The competitive benefits (Variance explained=20.931%) contributed to the perception of employees for the benefits of outsourcing as compared to the profitability benefits (Variance explained=14.821%) and other benefits (Variance explained=14.806%). The factor loading was found highest for the benefits on recruitment, training, and infrastructural developments by outsourcing the HR functions (Factor loading=.833) and banks experienced the increase in revenues (Factor loading=.824). Indicating that banks are having increased revenues and reputation after outsourcing their functions.

Barriers of Outsourcing in Banks

In this section, the barriers faced by banks are identified with the help of 22 statements indicating the different types of barriers.

TABLE 7: KMO AND BARTLETT'S TEST FOR THE BARRIERS OF OUTSOURCING IN BANKS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.88
Bartlett's Test of Sphericity	Approx. Chi-Square	2066.27
	Df	231
	Sig.	.000

Source: primary data collected

The results indicate that the KMO statistics are found to be 0.876. The estimated value of KMO is greater than the required value of 0.6 which indicates that the sample size is adequate in order to apply the factor analysis. The results show that the Chi-square statistics estimated for Bartlett's test is found to be 2066.273 with the probability value of 0.000 indicating that the selected statements are significantly correlated.

TABLE 8: ROTATED COMPONENT MATRIX FOR BARRIERS OF OUTSOURCING IN BANKS

Statements included in factor analysis	Factor Loadings	Extracted Communality	Rotated Eigen Value	Variance explained	Factor name
The problem in facing technological gaps	.81	.70	3.62	16.45%	Value barrier
the service provider does not perform as expected by the bank	.79	.66			
Sub-standard delivery of service	.79	.71			
Confidentiality issues aroused in the security of sensitive data of customers	.78	.69			
Bank faced Financial losses due to a third party's errors	.77	.66	3.27	14.86%	Image barrier
No clear understanding of banks service expectation	.82	.68			
Heavier regulatory and compliance requirements in the home market	.78	.64			
Bank faced the loss of credibility due to third party's inefficiencies	.81	.68			
Lack of commitment in timely performance by the service provider	.79	.64	3.16	14.38%	Trust barrier
Lead to serious legal problems and litigations due to data privacy and related issues	.76	.62			
The service provider has Insufficiently skilled staff	.80	.74			
Service providers Subcontracts without informing the bank	.82	.75			
Hidden and non- transparent costs in service level agreements	.60	.65	2.38	10.85%	Risk barrier
The difference in goals of bank and service provider	.58	.62			
The bank needs continuous supervision of the service provider	.79	.71			
Inability to insource an activity once outsourced	.62	.53			
The success of the bank becomes dependent on successful delivery by the service provider	.69	.54	2.10	9.50%	Control barrier
Outsourcing effects the long-term operational innovativeness	.70	.54			
Employees of the bank and service provider do not properly collaborate	.73	.57			
Loss of control in decision making	.77	.74	2.10	9.50%	Control barrier
The cost involved in outsourcing exceeds the calculated budget	.71	.67			
Loss of internal expertise	.73	.69			
Principal component analysis, varimax Rotation method, No. of iterations-6				66.06%	

Source: primary data collected

The results of PCA and varimax rotation indicate that 22 statements can be explained with the help of 5 factors. These 5 factors are able to explain 66.061% of the variance of the included statements. The EFA provides the five factors which are examined carefully and are names as

Factor 1: Value Barrier

Factor 2: Image Barrier

Factor 3: Trust Barrier

Factor 4: Risk Barrier

Factor 5: Control Barrier

The results indicate that all indicators are significantly contributing to the perception of employees for the barriers faced by the banks in outsourcing their functions. The value barriers are predominating the other type of barriers as per the employee's perception. (Variance explained= 16.457%), followed by image and trust barriers. The indicator "service providers subcontract without pre informing the banks" shown the highest factor loading (.827), indicating the existence of a lack of trust between the service provider and the bank. "No clear understanding of the banks' service expectation" also contributed highly to the employee's perception of barriers (.823) Problem in facing technological gaps is also the major problem faced by banks (.814). It can be said that even after enormous growth in technology and availability of service providers, still there is dissatisfaction in banks for the outsourcing contracts.

Comparison Between Public and Private Sector Banks in India

The independent t-test is applied in order to examine the difference if any exists between the average score of the public and private banks against the different factors representing the motivating factors, benefits, and barriers of outsourcing from their employee perspective.

TABLE 9: INDEPENDENT SAMPLE T-TEST WITH RESPECT TO FACTORS MOTIVATING FOR OUTSOURCING ACTIVITIES

Factors motivating outsourcing activities	Type of Bank	Sample size	Mean	Std. Deviation	T statistics (p-value)	Conclusion
Better Customer Service	Public	94	3.37	.79	-1.983 (0.049)	Significant difference found
	Private	106	3.59	.81		
Better use of Resources	Public	94	3.62	.76	-1.599 (0.111)	No difference found
	Private	106	3.79	.78		
Capitalization of Technological advancements	Public	94	3.76	.94	-1.752 (0.081)	No difference found
	Private	106	3.97	.76		
Cost Efficiency	Public	94	3.64	.81	-1.876 (0.062)	
	Private	106	3.85	.73		
Strategic Competitive Advantage	Public	94	3.44	.95	-3.812 (0.000)	Significant difference found
	Private	106	3.91	.76		

*p<.05

Source: primary data collected

The table reported that in the case of **better customer services** and **strategic competitive advantages** there is a significant difference found between public and private sector banks concerning average score from their employee perspective. The mean score of the private sector is found significantly greater than the mean score in the case of public sector banks. However, in the case of other factors, no difference is found between public and private sector banks with respect to the average score from their employee perspective. Therefore, the H1 is rejected, and there exist significant differences in the perception of employees of public and private banks for the motivating factors of outsourcing.

Benefits of outsourcing activities

The results of hypothesis testing using t-test are shown below in the table:

TABLE 10: INDEPENDENT SAMPLE T-TEST WITH RESPECT TO BENEFITS OF OUTSOURCING ACTIVITIES

	Type of Bank	Sample Size	Mean	Std. Deviation	T statistics (p-value)	Conclusion
Competitive Benefits	Public	94	3.21	.82	-0.793 (0.429)	No difference found
	Private	106	3.31	.80		
Reputational Benefits	Public	94	3.23	.77	-2.098 (0.037)	Significant difference found
	Private	106	3.47	.85		
Profitability Benefits	Public	94	3.19	.85	-1.860 (0.064)	No difference found
	Private	106	3.41	.85		
Other Benefits	Public	94	3.31	.93	-1.545 (0.124)	No difference found
	Private	106	3.51	.93		

*p<.05

Source: primary data collected

The table reported that in the case of **reputational benefits** there is a significant difference found between public and private sector banks with respect to the average score from their employee perspective. The mean score of the private sector is found significantly greater than the mean score in the case of public sector banks. The employees perceive that the reputational benefits are better for private sector banks as compares to the perception of public sector banks. It is evident from the earlier studies that private banks are earning more reputation and flourishing their business due to the latest innovative solution, excellent customer services, using the latest technological updates in business. However, in the case of **competitive benefits, profitability benefits, and other benefits** no difference is found between public and private sector banks with respect to the average score from their employee perspective. It indicates that both types of banks are enjoying the benefits of competition, an increase in profits, and many other benefits of their outsourcing decisions. Hypothesis H2 is rejected and it can be said that there exists a significant difference exists among employee’s perception of the benefits of outsourcing.

Barriers of Outsourcing

TABLE 11: INDEPENDENT SAMPLE T-TEST FOR THE FACTORS REPRESENTING THE BARRIERS OF OUTSOURCING

	Type of Bank	Sample size	Mean	Std. Deviation	T- statistics (p value)	Remark
Value Barrier	Public	94	3.13	.70	-1.128 (0.261)	No difference found
	Private	106	3.26	.89		
Image Barrier	Public	94	3.36	.96	-1.571 (0.118)	No difference found
	Private	106	3.57	.89		
Risk Barrier	Public	94	3.13	.89	-0.875 (0.383)	No difference found
	Private	106	3.23	.85		
Trust Barrier	Public	94	2.81	.63	-2.392 (0.018)	Sig. difference found
	Private	106	3.06	.84		
Control Barrier	Public	94	3.24	.85	-2.421 (0.016)	Sig. difference found
	Private	106	3.53	.83		

*p<.05

Source: primary data collected

The table reported that in the case of the **trust barrier** and **control barrier** there is a significant difference found between public and private sector banks with respect to an average score of barriers from their employee perspective. The mean score of the private sector is found significantly greater than the mean score in the case of public sector banks. It indicates that private bank employees consider trust as a major barrier to the success of an outsourcing contract. The lack of control over the outsourced activities is one major concern for the banks. It always requires a huge change in investment for taking an activity once outsourced back to the in-house employees. However, in the case of other factors, no difference is found between public and private sector banks with respect to the average score of barriers from their employee perspective. Thus, the H3 is also rejected and there exists a difference in the perception of the public banks and private banks employees for the barriers of outsourcing.

FINDINGS

It is evident from the analysis of data that “factors of outsourcing”, “benefits of outsourcing”, and “barriers of outsourcing”, are significant to the outsourcing decisions for the public and private banks. It is very much similar in line with the earlier studies. (Jain & Natarajan, 2011), (Gulla & Gupta, 2011b), The comparative study of these factors is also found significant for future research about outsourcing decisions. IT/IS and BPO are found the most outsourced services till the present. Though some private banks have started taking more risks in Their outsourcing decisions and have started outsourcing their knowledge management processes also. The detailed discussion on the results of the analysis is as follows:

Factors of Outsourcing

It is evident from the data analysis that bank employees of public and private banks in India are strongly positively influenced by their perception that outsourcing helps them in achieving strategic competitive advantages, improving their customer service, helps to achieve cost-effectiveness. It is also evident that banks are willing to take advantage of the updated technologies. Banks want to improve their operational efficiencies by taking the benefits of the latest developments in information and communication technology and making the effective utilization of their resources. (Hanafizadeh & Zare Ravasan, 2018a)(Gulla & Gupta, 2012)

Banks have to make their customer banking experience more convenient, which is possible by outsourcing their services to other service providers. The findings of the present studies are similar to evidence from the previous studies that factors like service quality, price, customer relationship management, and corporate image contribute to customer satisfaction which helps in increasing customer loyalty. (Shafiee & Emadi, 2020) (Farooq et al., 2018)

The results confirm the findings of earlier researches conducted for outsourcing decisions in the Indian context. (Gulla & Gupta, 2011b). It is slightly differentiating with the studies done in developed nations, where cost-savings and unavailability of skilled labour are the primary reasons for outsourcing (Rajabzadeh et al., n.d.) (Wickramasinghe, 2015) (Kumar Sharma & Al-Muharrami, 2018) (Farooq et al., 2018) (Arora, n.d.) (Patnayak & Swain, 2010) For being the benchmark in providing customer service banks do not hesitate in taking the help of expert services available in the market. To serve the customer with the best of the services outsourcing is done to the market experts, outsourcing brings fruitful results in terms of increased customer base and operational benefits.

Outsourcing for many companies provides an opportunity to function with greater flexibility. According to Singh and associates, 2020, in outsourcing, to reflect changing business atmosphere, the contracts and the jobs of their workers depend on the extent of flexibility (Singh and associates, 2020). Development in tele-communications and satellite communications and advancement in fiber optics technology have made internet-based communication and transfer of data possible, opening the new way for outsourcing by Indian banks now with the help of customer care services that help banks as well as customers to enhance their efficiency and stand out in market especially in case of private sector banks trying hard to stand out. (Singh & Associates, 2020)

Outsourcing of IT and IS activities also reduce the risk of obsolescence in technology, because the service provider invests in the technology and infrastructure, so banks become free from the risk of obsolescence of very fast-changing technology and the bank can take the benefit of updated technology. The factors of outsourcing like cost-effectiveness and better use of resources, capitalization of technological advancements was found similar in bank employees' perception, but the private banks were found to have a more positive influence on the strategic competitive advantage of outsourcing than the public banks. The reason being the improved brand image of private banks in the eyes of customers and their urge to serve their customers with innovative and benchmark solutions.

Benefits of Outsourcing

The results of data analysis indicate the strong positive perception of employees for the benefits of outsourcing. The results indicated that banks are enjoying the benefits of updated technologies, pricing benefits due to available competition in the vendor market. The analysis confirms the findings of the earlier researches in the Indian Context. (Ravi et al., 2011);(Gulla & Gupta, 2011b) (Majumdar, 2011);(Mohapatra et al., 2015) Public and private banks have recognized the importance of outsourcing to increase revenues and maximize efficiency along with maximum cost-effectiveness. Increases in the number of customers, along with the advanced knowledge of customers regarding the different financial policies and services, have become a vital aspect for the banks' decisions. (Sharma, 2018). Advancement in technology has powered banks to process many transactions and customers seeking additional requirements.

Due to the increased number of service providers the availability of experienced and specialized service providers has increased, outsourcing of the activities which were demanding for heavy investments in infrastructure and technology in-house results in ultimate cost-effectiveness. (Elhoushy et al., 2020) The outsourcing of the HR activities also helps in reducing the investment in recruitment, training, and development of staff and provides cost-effectiveness to the bank. (Han et al., 2008)

The outsourcing of the activities allows the banks to achieve superior margins compared to their competitors' banks and generates value for their shareholders. Outsourcing provides the banks an edge over their competitors due to the superiority of selected vendors. The customer experience with the best of the services helps in retaining the existing customers by enhancing customer loyalty. Banks receive reputational benefits as a result of their outsourcing decisions. Better service quality, price, customer relationship management, and corporate image contribute a lot to customer satisfaction which ultimately increases customer loyalty. The outsourcing of activities provides an opportunity to utilize the existing resources of the banks with greater flexibility.

Barriers of Outsourcing

As far as the barriers of outsourcing are concerned, the study revealed that the overall perception of employees was more significant for trust and control barriers. For private banks, the trust and control factors were the most serious barriers as compared to the public banks. The findings are quite similar to the earlier studies conducted internationally, in the area of outsourcing in the banking sector (Gunasekaran et al., 2015) (Agburu et al., 2017); (Tjader et al., 2010) As banks deals with a large number of customers personal, professional and financial information, there exists the highest risks of data leakage, and losing the confidentiality of data, which directly impact the reputation of the banks and which may lead to serious legal issues. Sub-standard delivery of services and non-promptness in performance are found the most highlighted issues in breach of outsourcing agreements.

Comparison of Public and Private Sector Banks

The private banks were found to have more reputation built than the public banks, the increase in business of private is the proof of their growth. (Al-Homaidi et al., 2018) Though both types of banks are enjoying an increase in profits, Competitive benefits, and other benefits. The existing competition in the banking sector in India has also forced the public banks to improve their service levels, as a result of which, the public banks are also adopting technological advancements at a high pace. (Abbas et al., 2019)

The result of the present study indicated that private banks are having a good reputation in eyes of customers, as they are more liberal in taking decisions as compared to public banks, which are bound by the legal and regulatory controls of the government.

The perception of employees was found similar in terms of value received, enhancement of corporates image of the banks, and risks of outsourcing, but the private banks are facing more trust and control barriers than the Public banks due to the large dependency on the service provider, loss in decision making and loss of internal expertise and differences in costs of outsourcing implementation than the budgeted ones. (Abbas et al., 2019)

CONCLUSION

Outsourcing has become a most imperative way for the adoption of innovativeness and technological advancements without investing much in the infrastructures. The Increase in information and communication technology has opened the latest methods of banking like e-banking, mobile banking, payment banks, which has made banking, a quite happier experience for the customers (Abbas et al., 2019) (Abbas et al., 2019) Availability of the large number of expert service providers providing services on reasonable prices has made it quite easier for the banks to outsource those areas on which the bank doesn't have the expertise or have no scope of additional huge investments. (Agrawal et al., 2016b) The mature market of service providers in India has made Outsourcing a leading strategic tool to deal with the technological, organizational, and environmental changes. Some issues like data security, compliance of legal and regulatory framework, timely payments by banks, exact estimation of costs, it is taken care of properly, the outsourcing will bring the synergic effects of teamwork of banks and service providers in the direction of improved banking services in India. The present study will be used further, to develop a measurement model to understand the impact of outsourcing on the overall performance of Indian banks.

LIMITATIONS

- The study is conducted in public and private banks in India, the other counterparts like foreign banks, Cooperative banks are not included in the study.
- The research is conducted only in the national capital region of India, which may not hold the same results for the rest of the regions of the country.

SCOPE FOR FURTHER RESEARCH

- The study provides ample opportunities for research in outsourcing in allied areas to banking like Non-banking financial companies, Insurance and investment banks.
- The study can be used by the banks for designing the policies for new type of banks like small investment banks and payment banks.

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APPENDICES

PART OF QUESTIONNAIRE

[B] Outsourcing activities

B1: How long has your bank been outsourcing the activities?

S.no	Years	Please Tick (<input checked="" type="checkbox"/>)mark the option
1	Less than 3 years	
2	4 to 6 years	
3	7 to 10 years	
4	More than 10 years	

B2: Outsourced activities in different functional areas. Please Tick ()mark separately for each statement

Financial services	Yes	No
Credit card service (sales, billing, and collection) & Credit collection		
Supervision of loans		
Cheque preparation and clearing		
Backend operations (credit processing, corporate and trade services)		
ATM maintenance and cash replenishment in ATMs		
Marketing activities		
The marketing of Credit cards and Debit cards		
The marketing of loan services		
HR activities		
HR Audit support		
Recruitment, Training, and development activities		
Documents dispatch and collection		
Information technology services		
Management of Call centers for customer queries		
Software development and maintenance		
Data processing and back office-related activities		
Website and mobile app development and technical support		
Knowledge process outsourcing (KPO)services		
Market search		
Big data analytics		
Financial and investment research		

[C] C1: Motivating factors of outsourcing activities:

Please Tick ()mark your response for related agreement and disagreement for each statement.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
=SA	=A	=N	=D	=SDA

Motivating factors for Outsourcing Activities	SA	A	N	DA	SDA
Saving of time by outsourcing the activities					
Cost Saving					
Improvement in service quality for customers					
Risk Management					
Better overall customer experience					
Improvement of brand image					
The Benefit of advanced technology by the service provider					
Effective utilization of bank resources					
Effective allocation of Inhouse personnel					
Access to services unavailable inhouse					
Advantage of expert services from outside					
Reduction of risk of technology obsolescence					
Better IT competences					
Focus on core banking business					
Avoid recruitment of additional staff					
Lack of internal expertise					
Better services than competitors					
Providing services effectively to a large number of customers					

Please suggest other factors (If Any)

C2. Perceived benefits of outsourcing by your respective bank.

Please Tick (✓) mark your response for related agreement and disagreement for the following statements.

Strongly Agree =SA	Agree =A	Neutral =N	Disagree =D	Strongly Disagree =SDA
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Competitive benefits of outsourcing	SA	A	N	DA	SDA
Able to get Extensive branch network					
Increase in customer base					
Outsourcing has Lower bank charges					
Easy access to loans					
Key accounts held with a bank					
Given superior customer service					
Reputation benefits of outsourcing	SA	A	N	DA	SDA
Bank's positive reputation built is a result of outsourcing					
Bank has been providing Faster customer service after outsourcing					
More satisfied customers					
Lower employees' turnover ratio					
Considered as the all-round best bank by RBI					
Profitability benefits of outsourcing	SA	A	N	DA	SDA
Revenues are increasing every year					
Effective recycling of funds					
Reduction in operating costs of activities that are outsourced					
Outsourcing has provided enhanced economies of scale in technological resources					
Other benefits of outsourcing	SA	A	N	DA	SDA
Benefits on recruitment, training, and infrastructural development by outsourcing HR activities to the third party					
Overall Customer services being improved					
Reduction in operating costs of activities after outsourcing which is earlier done in-house					
Internal organizational stability and flexibility in obtaining improved satisfaction					

D2: Barriers faced by your bank while outsourcing the services

Strongly Agree =SA	Agree =A	Neutral =N	Disagree =D	Strongly Disagree =SDA
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Barriers faced by your bank in Outsourcing	SA	A	N	DA	SDA
Lack of commitment in timely performance by the service provider					
The service provider has Insufficiently skilled staff					
The difference in goals of bank and service provider					
Cost Involved in outsourcing exceeds the calculated budget					
Confidentiality Issues raised in security of Sensitive data of customers					
Lead to serious legal problems and litigations due to data privacy and related issues					
Bank faced the loss of credibility due to third party's inefficiencies					
Heavier regulatory and compliance requirements in the home market					
The problem in facing technological gaps					
Bank faced Financial losses due to third party's errors					
service provider subcontracts without informing the bank					
Loss of internal expertise					
Sub-standard delivery of service					
Hidden and non-transparent costs in Service level agreements					
No clear understanding of Banks service expectation					
Outsourcing affects the long-term operational innovativeness					
Loss of control in decision making					
The service provider does not perform as expected by the bank					
The bank needs continuous supervision of the service provider					
Inability to insource an activity once outsourced					
The success of a bank becomes dependent on successful delivery by the service provider					
Employees of the bank and service provider do not properly collaborate					

SECTORAL IMPACT OF COVID-19 PANDEMIC ON INDIAN AUTOMOBILE AND HEALTHCARE SECTOR**DHANUSH.L****STUDENT****SCHOOL OF BUSINESS MANAGEMENT****CHRIST (DEEMED TO BE UNIVERSITY)****BANGALORE****RAMESH CHANDRA BABU****ASSOCIATE PROFESSOR****SCHOOL OF BUSINESS MANAGEMENT****CHRIST (DEEMED TO BE UNIVERSITY)****BANGALORE****ABSTRACT**

The COVID-19 Pandemic which has caused a huge disruption in almost all the sectors of every economy across the globe has impacted largely the sectors of developing nations like India where the time taken to recover from this disaster is comparatively large when compared to the developed Nations. This research explores the way in which the two major sectors of the Indian economy have been impacted, namely the Healthcare sector and the Automobile sector. For this purpose the data of stock prices Pre-and Post Covid have been taken for both the Specific indexes related to these sectors and also the individual stock prices of the top 5 companies in each sector has been considered and compared with the index using various statistical analysis tools like the regression analysis, Johansen Cointegration test, Granger casualty test, Pairwise T-test and comparing the average returns pre and post Covid to obtain the actual difference in prices with time. Through the analysis we observe that the pandemic had indeed impacted both of the sectors initially and the Healthcare sector was found to recover soon than compared to the Automobile sector which is taking comparatively more time for its recovery, also it is found that there exists a long term relationship between the Sectoral indexes rather than short term impact. Therefore, this study largely aims to obtain the degree of impact of the pandemic on the Indian healthcare and the automobile sector which can be useful to other researchers who are willing to conduct their research with a similar objective

KEYWORDS

Covid-19, automobile sector, health sector.

JEL CODES

L62, I10, I19.

INTRODUCTION

As the effect of the Covid-19 pandemic still continues to reverberate, different areas of the economy are facing an alternate sort of hazard. While antibodies for Covid are under the advancement stage and a portion of the underlying medicines are giving positive indications of achievement, the possible human effect of the Covid episode is enormous and a reason for worldwide concern.

The COVID 19 is making pulverization especially for the Indian economy. Due to the Covid actuated lockdown is debilitating the nation's GDP development since it is having significant unsettling influence across different areas. An exceptionally computerized creation framework will save energy and not just lower creation costs, yet in addition improve quality. The subsequent decrease in human working hours will assist us with looking after wellbeing, and will permit organizations to continue without interferences should an emergency hit once more. Expanded trust in innovation, specialized execution, and online instalment areas are causing an adjustment in purchaser conduct, away from customary techniques. This powers us to adjust to new patterns, for example, telecommuting, furthermore, move towards a future that could be liberated from physical workplaces on the loose. There will be a drawn out decline in business make a trip because of the rise of video-conferencing apparatuses, with High Net Worth Individuals wanting to travel through personal luxury plane rather than top of the line air travel. Governments, business pioneers, and organizations will dispense more spending plans for putting resources into medical services and medical services items subsequent to finding the holes in the worldwide framework while battling the Covid. More tech new companies will arise with imaginative applications. National Banks have infused enormous entireties for monetary foundations and offered extraordinary exceptions that were not gave previously. Therefore, the main aim of this paper is to find out the impact of Covid-19 on two important sectors of the Indian economy i.e., the healthcare sector and the automobile sector and also to figure out the degree of impact and their sector particular recovery pace.

REVIEW OF LITERATURE

Das (2020), in their paper have said that the current pandemic circumstance has antagonistic profound effect on Indian business. Locally, the effect of the Covid pandemic COVID-19 could prompt lull in home-grown interest. This will bring about disintegration of buying power due to work misfortunes or pay chops and hinder impact of conceded request will have a more drawn out enduring effect on various areas, particularly where request is optional in nature. India's genuine GDP exhausted to its base in more than six years during 4Q 2019-20. India's development for one year from now 2020-21 is anticipated in the middle of 5.3% to 5.7%. The COVID19, or Covid, pandemic has uncovered numerous shortcomings in the worldwide framework. Notwithstanding our collected involvement with emergency the executives, this infection has had the option to Segregate us all in our homes. Coronavirus has caused serious interruption for the Indian Economy. The current Covid pandemic could prompt a four percent lasting misfortune to genuine Indian total national output (GDP). It is assessed for India's Gross Home-grown Product (GDP) development rate to 1.9 percent for 2020-21. This will be the most minimal after India recorded development rate at 1.1 percent in 1991-92. The COVID 19 has upset significant areas, it's plainly apparent that different areas the travel industry and flying, telecom, auto area, transportation are most affected areas that are confronting negative repercussion of the current fiasco.

Sindhu (2020), Have elaborately stated the effect of COVID-19 pandemic on a wide range of businesses is incomprehensible, and it will ceaselessly disturb the world economy until its anticipation immunization comes on the lookout and given to in any event half of the populace. The pandemic outcomes deficiency of millions of occupations in all businesses and has a lot more extensive effect than the downturn in the year 2008. Most noticeably awful hit businesses are lodgings, travel, transport, oil, amusement, land, development and publicizing. Alone US, Hotel Industry projected to lose \$3.5 billion/week and around 6.5 million positions out of 8.3 million absolute lodging occupations and by taking a gander at the COVID-19 development as of now. Hence, future anticipated moving towards one of the most exceedingly terrible downturns ever. Coronavirus is ending up being the most exceedingly awful bad dream for people, and we can trust that a particular antibody should come out or some marvel could end up closure this pandemic and make our reality and economies more grounded once more.

Rakshit (2020) have spoken about and thrown light on the likely impacts of Covid on the various areas and sectors of Indian economy and the explanations behind which India one of the arising economies on the planet can be profited in this emergency period. In addition, the investigation features the endurance procedures

that are basic for a business to adapt to the current circumstance. In any case, during this current pandemic situation, each undertaking should prepare for the vulnerabilities and difficulties that are springing up due to Covid. They should be proactive and should develop techniques to battle the impact of Covid to support during this difficult stretch. They need to capture plausible looming changes in business climate and ought to recognize the open doors to endeavour and flourish. Therefore, this paper wholly focused on the impacts of the pandemic on the Indian economy in particular and has suggested few Business revival strategies which can be considered as potential survival strategies during this tough situation pertaining to almost every economy around the globe.

Seetharaman (2020), In her paper has shared her opinion stating that No measure of precious stone ball Gazing may help us understand the full effect of the Covid-19 (C-19) emergency on business associations in an unmistakable way. Given the absence of priority, any such examinations appear to request routine modifications as we progress further up the "quantity of tainted" bend. Most nations of the world have forced limitations on social assemblies or even individuals working in closeness to one another. Enterprises that create and convey data items and administrations in this way, have kept on working while those that make actual items particularly work serious firms had to limit activities or briefly shut down.

In any case, in many nations, actual items which were fundamental in nature were hesitantly allowed to be made given the requirement for them in individuals' regular day to day existence. In this perspective, I draw upon three measurements – data power of item/administration, data force of cycle/esteem chain; alongside a third measurement – fundamental nature of the item/administration to help comprehend the prompt ramifications of C-19. I likewise present some recounted confirmations of endeavours to adjust plans of action in these conditions to address the difficulties that specific item qualities force yet at the equivalent profit by the business openings introduced by the centrality of the items.

Chaudary (2020), have stated that the flare-up of COVID-19 carried social and financial life to a stop. In this study the focus is on surveying the effect on influenced areas, for example, aviation sector, the travel industry, capital business sectors, retail, MSMEs, and oil. Worldwide and interior versatility is limited, and the incomes produced by movement and the travel industry, which contributes to 9.2% of the GDP, will negatively affect the GDP development rate. Flight incomes will descend by USD 1.56 billion. Oil has plunged to 18-year low of \$ 22 for every barrel in March, and Unfamiliar Portfolio Investors (FPIs) have removed enormous sums from India, about USD 571.4 million. While lower oil costs will recoil the current record deficiency, switch capital streams will grow it. Rupee is constantly deteriorating. MSMEs will go through an extreme money crunch. The emergency saw a shocking mass departure of such skimming populace of transients by walking, in the midst of countrywide lockdown. Their stresses basically were loss of work, every day proportion, and nonattendance of a federal retirement aide net. India should reconsider on her improvement worldview and make it more comprehensive. Coronavirus has likewise given some extraordinary occasions to India. There is a chance to take an interest in worldwide stockpile chains, multinationals are losing trust in China. To 'Make in India', a few changes are required, work changes being one of them.

NEED FOR THE STUDY

The Covid-19 pandemic has indeed struck a huge blow to almost all the sectors especially in a developing economy like India therefore this study takes into consideration 2 major sectors of the economy i.e. Healthcare and the automobile sector and this research work is important since Covid-19 being a recent phenomenon and no much paper are published regarding the degree of impact on specific sectors therefore this study is an attempt to figure out the degree of impact and conclude upto what extent this pandemic has impacted these 2 major sectors of the Indian economy. This paper can also be useful for researchers doing further research with similar ideas.

OBJECTIVES OF THE STUDY

- To analyse the long-term relationship between the selected stocks and its respective index using Johansen Cointegration test during Covid-19.
- To analyse the impact of Index on the selected stock prices during Covid-19
- To study Pre and post Covid impact on stock returns of the respective industry

METHODOLOGY

TYPE OF RESEARCH

This research paper is quantitative research. Quantitative analysis refers to the systematic empirical study of observable phenomena by mathematical, statistical, or computational techniques. The quantitative work desire is to establish and engage phenomena-related mathematical models, theories, and hypotheses. The measuring method is important to quantitative research because it provides the fundamental network to quantitative relationships between factual observation and mathematical expression.

HYPOTHESIS

H0: COVID-19 Pandemic posed a great impact on healthcare and automobile sector

H1: COVID-19 Pandemic did not pose a great impact on healthcare and automobile sector

PERIOD OF THE STUDY

The data was collected from reliable secondary sources

NATURE OF DATA

Stock data and respective index prices of past 2 years is taken for the purpose of this research

TOOLS FOR ANALYSIS

Stationarity Test

A Stationarity test allows us to verify whether a series is stationary or not. In this kind of approach there are two different approaches:

- 1) One being Stationarity tests such as the KPSS test that consider the null hypothesis as H0 that the series is stationary, and vice versa
- 2) Second one is the Unit root tests, such as the Dickey-Fuller test and its respective augmented version, which is called as the augmented Dickey-Fuller test (ADF), or it can also be the Phillips-Perron test (PP), for which the null hypothesis is on the contrary that the respective series has a unit root and hence it is not stationary. XLSTAT includes and contains as of today 4 major unit root tests: the Dickey-Fuller test, the PP test, the ADF test, and the final one being the KPSS stationarity test.

Granger Causality Test

Granger causality test is one among the statistical concept of causality that is mainly based on prediction. According to this test, if a signal says X1 Granger-causes (or "G-causes") and another signal X2, then the past values of the X1 data should be containing information that helps predict the X2 variables above and beyond information contained in the past values of X2 alone. Therefore, its mathematical formulation is based on the linear regression modelling of the stochastic processes (Granger 1969). Also more complex extensions to the nonlinear cases do exist, however these extensions are often more difficult to be applied in real practices.

Regression Analysis

Regression analysis contains a set of statistical methodologies which are used for the estimation of relationships between any particular dependent variable with one or more independent variables. It can therefore be utilized to assess and find out the degree of the strength of relationship between the variables and for modelling any of the future relationship between them.

Johansen's Co-integration Test

There are generally two types of Johansen's co-integration tests: one of this uses trace (from linear algebra) and the other being a maximum eigenvalue approach (an eigenvalue is called a special scalar; When you multiply a given matrix by a particular vector and get the same vector as the final answer, along with a new scalar, then the scalar is said to be an eigenvalue). Therefore, both the forms of the test will help us determine whether if Co-integration is present or not. The Null hypothesis for both the forms of test is that there are no Co-Integrating equations. The difference therefore lies in the alternate hypothesis: the trace test alternate

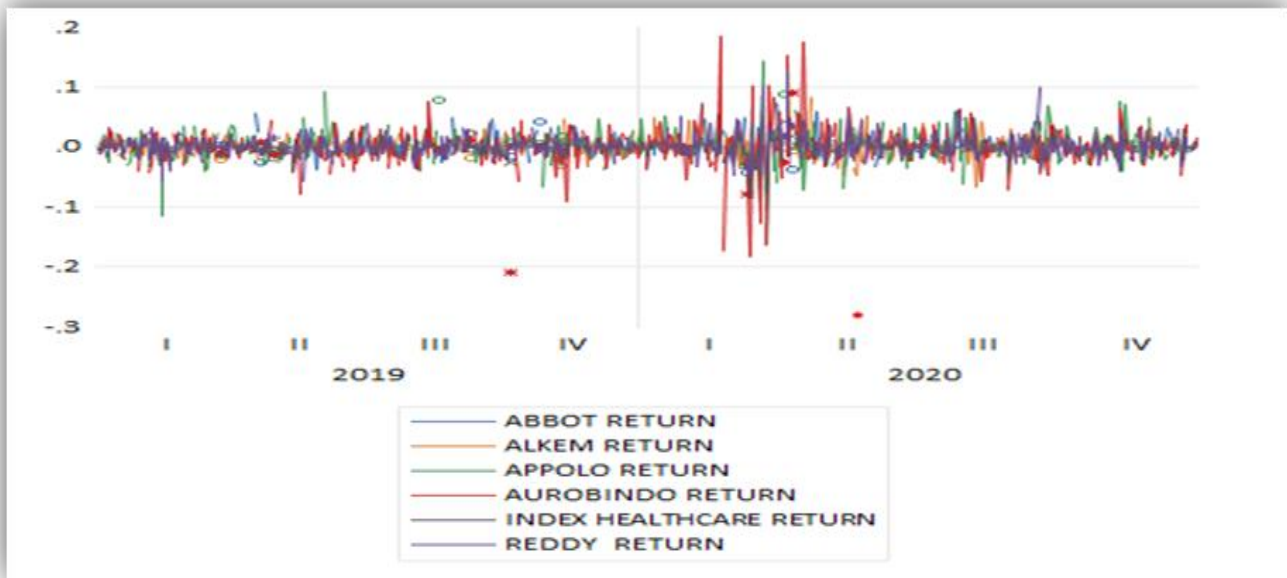
hypothesis is simply such that the numbers of Cointegrating relationships are atleast one (projected by the number of linear combinations). The maximum eigenvalue test therefore has an alternate hypothesis in the form of $K0 + 1$ (instead of $K > K0$). Rejecting of the null hypothesis in this situation is basically saying that there is only one combination of the non-stationary variables that will give us a stationary process.

Paired T-Test

A paired t-test is generally used when we are interested in knowing the difference between two variables for the same particular given subject. Often these two variables are seen to be generally separated by time. For example, we may have data regarding diabetes levels in 1952 and diabetes levels in 1962 for each included subject. Therefore, we may be interested in the difference in the diabetes levels between these two different given time points.

**RESULTS AND DISCUSSION
HEALTHCARE SECTOR**

GRAPH 1: STATIONARITY TESTS OF NIFTY HEALTHCARE INDEX AND 5 MAJOR COMPANIES



The above graph shows that the data is stationary when put through the stationarity test.

AUGMENTED DICKEY FULLER TEST

H0: The Data is Non-stationary and has a unit root.

H1: The Data is stationary and does not have a unit root.

TABLE 1: THE AUGMENTED DICKEY FULLER TEST DATA FOR THE HEALTHCARE SECTOR

AUGMENTED DICKEY FULLER TEST (ADF TEST)		
VARIABLES	T-STATISTIC	PROBABILITY VALUES
NIFTY HEALTHCARE RETURNS	-11.50684	0.0000
ABBOT RETURNS	-12.00314	0.0000
ALKEM RETURNS	-14.5559	0.0000
APPOLO RETURNS	-12.58769	0.0000
DR REDDYS RETURNS	-12.47254	0.0000
AUROBINDO	-12.81649	0.0000

Through the above table we can see that the probability values are less than ($P=0.05$) which shows and suggests to reject the Null hypothesis and accept the alternative hypothesis and we can therefore say that the data is stationary and does not have a unit root.

GRANGER CAUSALITY TEST FOR SHORT RUN

H0: The Index has return does not Granger cause individual companies return

H1: The individual companies does not Granger cause the Healthcare index returns

TABLE 2: GRANGER CAUSALITY TEST OF HEALTHCARE INDEX RETURN AND ALKEM RETURN

Pairwise Granger Causality Tests
Date: 01/13/21 Time: 21:00
Sample: 1/01/2019 12/31/2020
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_HEALTHCARE_RETURN does not Granger Cause ALKEM_RETURN	494	5.55653	0.0041
ALKEM_RETURN does not Granger Cause INDEX_HEALTHCARE_RETURN		0.60283	0.5477

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty healthcare index and Alkem Returns. The results here showcase that the first null hypothesis which is having a probability of 0.041 which is less than 0.05 which means that this null hypothesis gets rejected. This in turn tells that the Nifty healthcare index does impact or granger the Alkem Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.5477 which is greater than 0.05, which tells that Returns of Alkem does not impact the Nifty healthcare index returns but it is vice versa.

TABLE 3: GRANGER CAUSALITY TEST OF HEALTHCARE INDEX RETURN AND ABBOT RETURN

Pairwise Granger Causality Tests
 Date: 01/13/21 Time: 20:56
 Sample: 1/01/2019 12/31/2020
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
ABBOT_RETURN does not Granger Cause INDEX_HEALTHCARE_RETURN	494	2.11943	0.1212
INDEX_HEALTHCARE_RETURN does not Granger Cause ABBOT_RETURN		0.67866	0.5078

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty healthcare index returns and Abbot Returns. The results here showcase that the first null hypothesis which is having a probability of 0.1212 which is more than 0.05 which means that this null hypothesis gets accepted. This in turn tells that the abbot returns do not impact or granger the Nifty Healthcare Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.5078 which is greater than 0.05, which tells that Returns of Nifty healthcare does not impact the Abbot returns and vice versa.

TABLE 4: GRANGER CAUSALITY TEST OF HEALTHCARE INDEX RETURN AND APOLLO RETURN

Pairwise Granger Causality Tests
 Date: 01/13/21 Time: 21:01
 Sample: 1/01/2019 12/31/2020
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_HEALTHCARE_RETURN does not Granger Cause APPOLO_RETURN	494	0.92724	0.3963
APPOLO_RETURN does not Granger Cause INDEX_HEALTHCARE_RETURN		0.08071	0.9225

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty healthcare index returns and Apollo returns. The results here showcase that the first null hypothesis which is having a probability of 0.3963 which is greater than 0.05 which means that this null hypothesis is accepted. This in turn tells that Nifty healthcare index does not impact or granger the Apollo Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.9225 which is greater than 0.05, which tells that Returns of Apollo does not impact the Nifty healthcare index returns in the short run.

TABLE 5: GRANGER CAUSALITY TEST OF HEALTHCARE INDEX RETURN AND AUROBINDO RETURN

Pairwise Granger Causality Tests
 Date: 01/13/21 Time: 21:02
 Sample: 1/01/2019 12/31/2020
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_HEALTHCARE_RETURN does not Granger Cause AUROBINDO_RETURN	494	2.49178	0.0838
AUROBINDO_RETURN does not Granger Cause INDEX_HEALTHCARE_RETURN		1.04450	0.3527

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty healthcare index returns and Aurobindo returns. The results here showcase that the first null hypothesis which is having a probability of 0.0838 which is greater than 0.05 which means that this null hypothesis is accepted. This in turn tells that Nifty healthcare index does not impact or granger the Aurobindo Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.3527 which is greater than 0.05, which tells that Returns of Aurobindo does not impact the Nifty healthcare index returns in the short run.

TABLE 6: GRANGER CAUSALITY TEST OF HEALTHCARE INDEX RETURN AND DR.REDDYS RETURN

Pairwise Granger Causality Tests
 Date: 01/13/21 Time: 21:02
 Sample: 1/01/2019 12/31/2020
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_HEALTHCARE_RETURN does not Granger Cause REDDY__RETURN	494	0.51164	0.5998
REDDY__RETURN does not Granger Cause INDEX_HEALTHCARE_RETURN		0.00123	0.9988

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty healthcare index returns and Dr Reddys returns. The results here showcase that the first null hypothesis which is having a probability of 0.5998 which is greater than 0.05 which means that this null hypothesis is accepted. This in turn tells that Nifty healthcare index does not impact or granger the Dr Reddys Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.9988 which is greater than 0.05, which tells that Returns of Dr Reddys does not impact the Nifty HealthCare index returns in the short run.

REGRESSION ANALYSIS

TABLE 7: REGRESSION ANALYSIS OF NIFTY HEALTHCARE INDEX AND 5 COMPANIES

Dependent Variable: INDEX_HEALTHCARE_RETURN
 Method: Least Squares
 Date: 01/13/21 Time: 13:48
 Sample (adjusted): 1/02/2019 12/31/2020
 Included observations: 496 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000107	0.000314	-0.340910	0.7333
ABBOT_RETURN	0.082907	0.018304	4.529354	0.0000
ALKEM_RETURN	0.089463	0.018202	4.914979	0.0000
APPOLO_RETURN	0.119647	0.013765	8.692088	0.0000
AUROBINDO_RETURN	0.176870	0.011062	15.98881	0.0000
REDDY_RETURN	0.311562	0.020024	15.55907	0.0000
R-squared	0.761137	Mean dependent var		0.000761
Adjusted R-squared	0.758700	S.D. dependent var		0.014162
S.E. of regression	0.006957	Akaike info criterion		-7.086237
Sum squared resid	0.023713	Schwarz criterion		-7.035351
Log likelihood	1763.387	Hannan-Quinn criter.		-7.066262
F-statistic	312.2774	Durbin-Watson stat		2.006232
Prob(F-statistic)	0.000000			

Upon applying the multiple Linear Regression analysis on Nifty healthcare index returns and 5 major companies in that index it was discovered that importance of Regression from the above table, that comes out to be 0.000 (< 0.05) which implies that regression model can be legitimately settled. Referring to the above table we get the coefficients of Regression Model which clearly shows a negative value on the individual company's return which is contradicting or in general is providing an inverse relation with the dependent variable i.e. the nifty healthcare index during the Covid pandemic duration.

CO-INTEGRATION TEST

H0: There is no Co-integration between the index and selected companies

H1: There is Co-integration between the index and selected companies

TABLE 8: JOHANSEN COINTEGRATION TEST (TRACE) OF THE HEALTHCARE SECTOR

Date: 01/13/21 Time: 13:24
 Sample (adjusted): 1/09/2019 12/31/2020
 Included observations: 491 after adjustments
 Trend assumption: Linear deterministic trend
 Series: REDDY_RETURN AUROBINDO_RETURN APPOLO_RETURN ALKEM_RETURN ABBOT_RETURN INDE...
 Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.252961	590.8490	95.75366	0.0000
At most 1 *	0.209944	447.6548	69.81889	0.0000
At most 2 *	0.190808	331.9500	47.85613	0.0000
At most 3 *	0.173452	227.9959	29.79707	0.0000
At most 4 *	0.148320	134.4617	15.49471	0.0000
At most 5 *	0.107124	55.63424	3.841465	0.0000

Trace test indicates 6 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

TABLE 9: JOHANSEN CO-INTEGRATION TEST (MAXIMUM EIGENVALUE) OF THE HEALTHCARE SECTOR

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

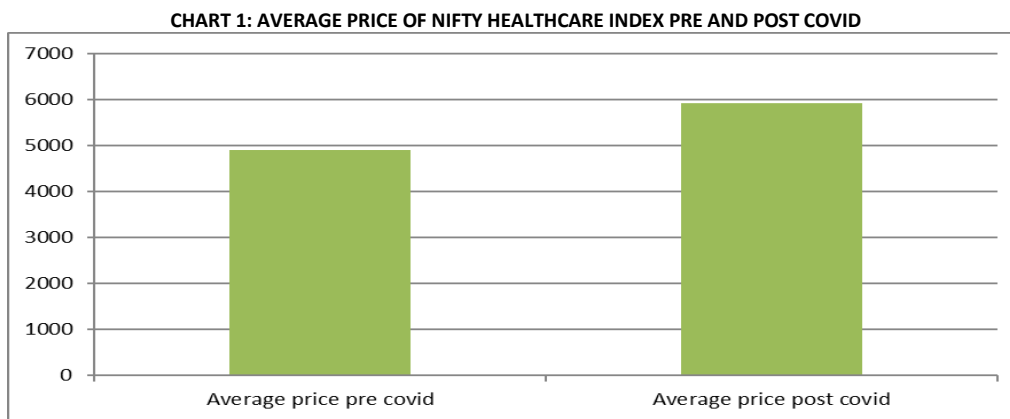
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.252961	143.1943	40.07757	0.0000
At most 1 *	0.209944	115.7048	33.87687	0.0000
At most 2 *	0.190808	103.9540	27.58434	0.0000
At most 3 *	0.173452	93.53425	21.13162	0.0000
At most 4 *	0.148320	78.82746	14.26460	0.0000
At most 5 *	0.107124	55.63424	3.841465	0.0000

Max-eigenvalue test indicates 6 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

The above table demonstrates the Johansen Cointegration test results. It assures the long-term relationship among the selected variables. The result shows that the series is cointegrated, as both the trace and the maximum eigenvalue tests reject the null hypothesis of no Cointegration, suggesting that there are 6 significant co-integrating vectors in the model. This implies that there are six common stochastic trends, indicating a degree of market integration. Therefore, it may conclude that there exists a stationary, long-run relationship among the variables.



In the above chart the average price of Nifty Healthcare index for the period (01-01-2019-31-12-2019) i.e. pre covid is taken and it is compared with the average price of Post Covid starting from (01-01-2020-31-12-2020), we can see from the above table that the average price has increased from 4900 to around Rs.6000 this in turn tells us that the healthcare sector was initially affected in the early stages of Covid-19 but it slowly got back on track and became a sector with rapid recovery rate after being hit from the pandemic

PAIRED T-TEST

H0: There is no impact of Covid on the Index returns with respect to time

H1: There is an impact of Covid on the Index returns with respect to time

TABLE 10: PAIRED T-TEST OF NIFTY HEALTHCARE INDEX PRE AND POST COVID

PAIRED T-STATISTIC	
T STATISTIC ON PRICE	0.000000000000000000092733
T STATISTIC ON RETURNS	0.107491598

In the above table we can see that initially a Paired T-statistic was conducted with respect to the prices and we can say that the test proved to be significant i.e. (probability value of less than 0.05) was obtained which further showed that the pandemic had definitely impacted the prices of the Healthcare sector index, later the Paired T-test was conducted with respect to the returns where it was found that the Returns post covid pandemic were not much affected post the Covid pandemic as the Probability value is greater than 0.05.

AUTOMOBILE SECTOR

GRAPH 2: STATIONARITY TESTS OF NIFTY AUTOMOBILE INDEX AND 5 MAJOR COMPANIES



The above graph shows that the data is stationary when put through the stationarity test.

AUGMENTED DICKEY FULLER TEST

H0: The Data is Non-stationary and has a unit root

H1: The Data is stationary and does not have a unit root

TABLE 11: THE AUGMENTED DICKEY FULLER TEST DATA FOR THE AUTOMOBILE SECTOR

AUGMENTED DICKEY FULLER TEST (ADF TEST)		
VARIABLES	T-STATISTIC	PROBABILITY VALUES
NIFTY AUTOMOBILE RETIURNS	-12.4107	0.0000
ASHOK LEYLAND RETURNS	-12.82258	0.0000
BAJAJ AUTO RETURNS	-13.05073	0.0000
BALAKRISHNA LIMITED RETURNS	-12.56745	0.0000
BOSCH LTD RETURNS	-12.74202	0.0000
AMARARAJA RETURNS	-11.29307	0.0000

Through the above table we can see that the probability values are less than (P=0.05) which shows and suggests to reject the Null hypothesis and accept the alternative hypothesis and we can therefore say that the data is stationary and does not have a unit root.

GRANGER CASUALTY TESTS

H0: The Index has return does not Granger cause individual companies return

H1: The individual companies do not Granger cause the Automobile index returns

TABLE 12: GRANGER CAUSALITY TEST OF AUTOMOBILE INDEX RETURN AND AMARA RAJA RETURN

Pairwise Granger Causality Tests

Date: 01/13/21 Time: 21:22

Sample: 1/01/2019 12/31/2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_RETURN does not Granger Cause AMARARAJA_RETURN	494	0.61316	0.5421
AMARARAJA_RETURN does not Granger Cause INDEX_RETURN		1.12677	0.3249

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty Automobile index returns and Amara raja returns. The results here showcase that the first null hypothesis which is having a probability of 0.5421 which is greater than 0.05 which means that this null hypothesis is accepted. This in turn tells that Nifty Automobile index does not impact or granger the Amara raja Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.3249 which is greater than 0.05, which tells that Returns of Amara Raja does not impact the Nifty Automobile index returns in the short run.

TABLE 13: GRANGER CAUSALITY TEST OF AUTOMOBILE INDEX RETURN AND ASHOK LEYLAND RETURN

Pairwise Granger Causality Tests

Date: 01/13/21 Time: 21:23

Sample: 1/01/2019 12/31/2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_RETURN does not Granger Cause ASHOK_LEYLANDRETURN	494	4.50889	0.0115
ASHOK_LEYLANDRETURN does not Granger Cause INDEX_RETURN		0.10837	0.8973

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty Automobile index returns and Amara raja returns. The results here showcase that the first null hypothesis which is having a probability of 0.0115 which is less than 0.05 which means that this null hypothesis is Rejected. This in turn tells that Nifty Automobile index does impact or granger the Ashok Leyland Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.8973 which is greater than 0.05, which tells that Returns of Amara Raja does not impact the Nifty Automobile index returns in the short run but it is vice versa.

TABLE 14: GRANGER CAUSALITY TEST OF AUTOMOBILE INDEX RETURN AND BAJAJ AUTO RETURN

Pairwise Granger Causality Tests

Date: 01/13/21 Time: 21:24

Sample: 1/01/2019 12/31/2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_RETURN does not Granger Cause BAJAJ_AUTORETURN	494	1.37724	0.2532
BAJAJ_AUTORETURN does not Granger Cause INDEX_RETURN		0.37368	0.6884

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty Automobile index returns and Bajaj auto returns. The results here showcase that the first null hypothesis which is having a probability of 0.2532 which is greater than 0.05 which means that this null hypothesis is accepted. This in turn tells that Nifty Automobile index does not impact or granger the Bajaj auto Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.6884 which is greater than 0.05, which tells that Returns of Bajaj auto does not impact the Nifty Automobile index returns in the short run.

TABLE 15: GRANGER CAUSALITY TEST OF AUTOMOBILE INDEX RETURN AND BALAKRISHNA LTD RETURN

Pairwise Granger Causality Tests

Date: 01/13/21 Time: 21:24

Sample: 1/01/2019 12/31/2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_RETURN does not Granger Cause BALAKRISHNA_RETURN	494	0.88280	0.4143
BALAKRISHNA_RETURN does not Granger Cause INDEX_RETURN		2.12998	0.1199

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty Automobile index returns and Balakrishna returns. The results here showcase that the first null hypothesis which is having a probability of 0.4143 which is greater than 0.05 which means that this null hypothesis is accepted. This in turn tells that Nifty Automobile index does not impact or granger the Balakrishna Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.1199 which is greater than 0.05, which tells that Returns of Balakrishna does not impact the Nifty Automobile index returns in the short run.

TABLE 16: GRANGER CAUSALITY TEST OF AUTOMOBILE INDEX RETURN AND BOSCH RETURN

Pairwise Granger Causality Tests
 Date: 01/13/21 Time: 21:25
 Sample: 1/01/2019 12/31/2020
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INDEX_RETURN does not Granger Cause BOSCH_RETURN	494	4.32423	0.0138
BOSCH_RETURN does not Granger Cause INDEX_RETURN		0.86049	0.4236

The above table demonstrates the Granger Causality Test results for Short Run. Since we know that this test requires stationary data, hence we have taken the returns or first difference of the variables i.e., Nifty Automobile index returns and Bosch returns. The results here showcase that the first null hypothesis which is having a probability of 0.0138 which is lesser than 0.05 which means that this null hypothesis is rejected. This in turn tells that Nifty Automobile index does impact or granger the Bosch Returns. Similarly, the second null hypothesis also proves the same result since there the probability value is 0.4236 which is greater than 0.05, which tells that Returns of Bosch does not impact the Nifty Automobile index returns in the short run but it is vice versa.

REGRESSION ANALYSIS

TABLE 17: REGRESSION ANALYSIS OF NIFTY AUTOMOBILE INDEX AND 5 COMPANIES

Dependent Variable: INDEX_RETURN
 Method: Least Squares
 Date: 01/13/21 Time: 15:10
 Sample (adjusted): 1/02/2019 12/31/2020
 Included observations: 496 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000289	0.000379	-0.763548	0.4455
BOSCH_RETURN	0.191757	0.019794	9.687863	0.0000
BALAKRISHNA_RETURN	0.210758	0.018777	11.22417	0.0000
BAJAJ_AUTORETURN	0.392245	0.023141	16.95055	0.0000
ASHOK_LEYLANDRETURN	0.107990	0.013233	8.160390	0.0000
AMARARAJA_RETURN	0.097370	0.022280	4.370374	0.0000
R-squared	0.818648	Mean dependent var		2.42E-06
Adjusted R-squared	0.816797	S.D. dependent var		0.019633
S.E. of regression	0.008403	Akaike info criterion		-6.708399
Sum squared resid	0.034600	Schwarz criterion		-6.657513
Log likelihood	1669.683	Hannan-Quinn criter.		-6.688424
F-statistic	442.3847	Durbin-Watson stat		1.989383
Prob(F-statistic)	0.000000			

Upon applying the multiple Linear Regression analysis on Nifty Automobile index returns and 5 major companies in that index it was discovered that importance of Regression from the above table, that comes out to be 0.000 (< 0.05) which implies that regression model can be legitimately settled. Referring to the above table we get the coefficients of Regression Model which clearly shows a negative value on the individual company's return which is contradicting or in general is providing an inverse relation with the dependent variable i.e. the nifty Automobile index during the Covid pandemic duration.

CO-INTEGRATION TEST

H0: There is no Co-integration between the index and selected companies
 H1: There is Co-integration between the index and selected companies

TABLE 18: JOHANSEN COINTEGRATION TEST (TRACE) OF THE AUTOMOBILE SECTOR

Date: 01/13/21 Time: 15:07
 Sample (adjusted): 1/09/2019 12/31/2020
 Included observations: 491 after adjustments
 Trend assumption: Linear deterministic trend
 Series: AMARARAJA_RETURN ASHOK_LEYLANDRETURN BAJAJ_AUTORETURN BALAKRISHNA_RETURN BOS...
 Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.267618	629.6564	95.75366	0.0000
At most 1 *	0.225310	476.7333	69.81889	0.0000
At most 2 *	0.213034	351.3845	47.85613	0.0000
At most 3 *	0.164852	233.7555	29.79707	0.0000
At most 4 *	0.155103	145.3033	15.49471	0.0000
At most 5 *	0.119612	62.54971	3.841465	0.0000

Trace test indicates 6 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

TABLE 19: JOHANSEN COINTEGRATION TEST (MAXIMUM EIGENVALUE) OF THE AUTOMOBILE SECTOR

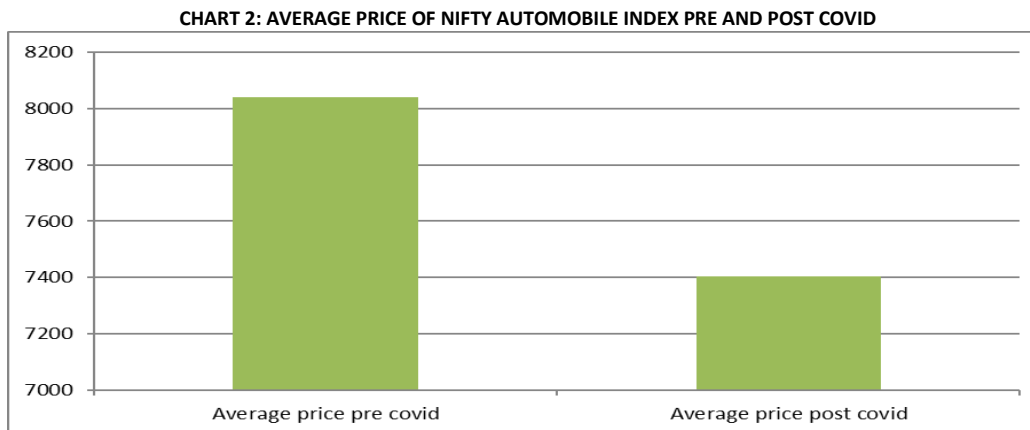
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.267618	152.9231	40.07757	0.0000
At most 1 *	0.225310	125.3488	33.87687	0.0000
At most 2 *	0.213034	117.6290	27.58434	0.0000
At most 3 *	0.164852	88.45213	21.13162	0.0000
At most 4 *	0.155103	82.75364	14.26460	0.0000
At most 5 *	0.119612	62.54971	3.841465	0.0000

Max-eigenvalue test indicates 6 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

The above table demonstrates the Johansen Cointegration test results. It assures the long-term relationship among the selected variables. The result shows that the series is cointegrated, as both the trace and the maximum eigenvalue tests reject the null hypothesis of no Cointegration, suggesting that there are 6 significant co-integrating vectors in the model. This implies that there are six common stochastic trends, indicating a degree of market integration. Therefore, it may conclude that there exists a stationary, long-run relationship among the variables.

AVERAGE PRICE PRE AND POST COVID OF NIFTY AUTOMOBILE INDEX



In the above table the average price of Nifty Automobile index for the period starting from (01-01-2019-31-12-2019) i.e. Pre-Covid is taken and it is compared with the average price of Post Covid starting from (01-01-2020-31-12-2020), we can see from the above table that the average price has decreased drastically from 8000 to around Rs.7400 this in turn tells us that the Automobile sector which was already suffering was affected badly by the Covid-19 pandemic and it is slowly getting back on track and trying to recover as fast as possible after being hit from the pandemic

PAIRED T-TEST

H0: There is no impact of Covid on the Index returns with respect to time

H1: There is an impact of Covid on the Index returns with respect to time

TABLE 20: PAIRED T-TEST OF NIFTY AUTOMOBILE INDEX PRE AND POST COVID

PAIRED T-STATISTIC	
T STATISTIC ON PRICE	0.00000010457
T STATISTIC ON RETURNS	0.634973281

In the above table we can see that initially a Paired T-statistic was conducted with respect to the prices and we can say that the test proved to be significant i.e. (probability value of less than 0.05) was obtained which further showed that the pandemic had definitely impacted the prices of the Automobile sector index, later the Paired T-test was conducted with respect to the returns where it was found that the Returns post covid pandemic were not much affected post the Covid pandemic as the Probability value is greater than 0.05.

SUMMARY OF FINDINGS

- It is found that there exists a long-term relationship between the Stocks selected namely the Abbot, Alkem, Apollo, Aurobindo and Dr Reddys returns and its respective Nifty Healthcare index returns which was found using Johansen Cointegration test.
- It is also found that there exists a long-term relationship between the Stocks selected namely the Bosch, Amara Raja, Ashok Leyland, Bajaj auto and Bala-krishna returns Apollo, Aurobindo and Dr Reddys and its respective Nifty Automobile index returns which is also found using Johansen Cointegration test.
- There is a differential impact Covid-19 on the average returns of both the Nifty Automobile index and the Nifty Healthcare index.
- The health care sector showed a great recovery rate when compared to the automobile sector which is still in the verge of recovery.

CONCLUSIONS AND SUGGESTIONS

In this study, we compared the impact of covid-19 pandemic on two major sectors of the Indian economy namely healthcare and the automobile sector. We further collected the data of the respective industry indexes and individual stock prices of the top five companies in each index this was done to compare the impact of individual stock prices on the respective industry indexes and from reliable secondary sources. The methodology included running various statistical tests like stationarity test, granger casualty test, regression analysis and Johaneson Cointegration test and also the paired t-test. These tests helped to analyse the problem statement and achieve the objectives of the study. Where it was found that the pandemic had a short term impact on the healthcare sector and long term impact on the automotive sector also the paired t-test suggests that there is indeed an impact of the pandemic on the prices of both the sectors but the degree of impact varies independently.

It is understood from the analysis that there exists a minimal relationship between the sectors respective indexes and selected companies since there are other factors and many other companies which are a part of the index and have not been considered for the study, therefore the investors and other stake holders must consider all the possible factors before making any investment decisions especially in these sectors.

The government in any developing economy like India should take effective measures during these tough situations like the on-going pandemic crisis to soothe the situation and help these sectors by providing financial stimulus and other policies which help these sectors recover swiftly from their current situation and also be prepared to face such calamities in future.

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A COMPARATIVE STUDY ON THE WORK LIFE BALANCE OF WOMEN EMPLOYEES AMONG THE HEALTH AND IT SECTOR

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ABSTRACT

Now a days, young women who are educated getting better exposure are ready to work for a better future, for financial stability, self-reliance and for a feeling of importance. Married women are working to become economically independent, to help her husband, to meeting their everyday expenses, to be role model for their children, to pay for the emergencies or contingencies, when the partner is suddenly not able to work and earn livelihood etc. Not only the educated women but also the moderately educated and uneducated women are also willing to go for job according to their ability and qualifications because the benefits of having a job, earning penny and stand in one's own feet. But these women face various problems in balancing their personal life and work life due to multiple roles. So this study aims at finding out the work life balance of women employees working in healthcare and IT sector

KEYWORDS

IT sector, healthcare, work life balance, multiple roles.

JEL CODES

J28, J29.

INTRODUCTION

Today, in this twenty first century, most of the Indian women wants to be independent, and they want to support their family and to equally contribute like men. Most of the women are now going for job for the same. As a result of changes in the culture, by passage of time, increase in education and knowledge, advancement of technology and all encouraged the women to take the role of an employee in their own workplace and along with their role as a responsible wife, mother and daughter in their family life also.

Earlier women prefer for only 9am to 5pm jobs since women had several restrictions from the family, society and commitments towards their family. As the time passes, now women are ready to go for jobs having shifts and are hesitate to go for even night shifts.

Now a days, women are in every field like teaching, banking, IT sector, hospital sector, arts and media, engineering, aerospace industry etc. Among them most of common sectors women opt for were teaching, banking, IT, healthcare sector. Because it is felt that it is most appropriate professions for women according to the perceptions of society. Among these sectors it is the IT and health care sectors, workers are required to work on shift basis irrespective of gender factors.

The working women are required to perform variety of roles in their family and at workplace. Working women is required to maintain a balance between their family life and work life, because they work for the overall betterment of their family and if they do not able to maintain a balance between their family and work life, and when they are spending more time in work space and concentrate more only on work related matters then there is no point to say that they are working for their family. In this point the concept of Work Life Balance gains its significance. Work life balance is having an equilibrium between an employees work life and personal life.

REVIEW OF LITERATURE

E. Jeffery. Hill, Joe collihan, Sara Weiners and Brent miller (2006): They made a study under the heading 'Influence of Virtual Office on the Aspects of Work-Life Balance'. This study is conducted among the employees of IBM. The study revealed a conclusion that virtual work provides more flexibility, productivity, longer work hours and there are negatives also which are lack of teamwork, higher morale etc.

David Boohene, K.Sanantha Lakshmi and T. Ramachandran. 'Analysis of work life balance of female nurses in hospitals -comparative study between private and government hospitals in Chennai'. The study arrived to a conclusion that there is no significant difference between the stress level of the female nurses in both sectors and work life balance of female nurses in both the sector is challengeable one. There is need for the periodical review regarding the balance between the personal life and work life because its absence leads to severe stress and the study made a suggestion that both private and government hospital need to closely monitor factors like stress, work place, demographic, motivation and other benefits will improve the work life satisfaction which will in turn improve the satisfaction of personal life also.

Sagar Surendra Deshmukh, Deepa Nanjappan (2013): they made a study on the work life balance of Indian women. They came to a conclusion that the organisation which gives importance for the WLB of employees can effectively reduce absenteeism, employee turnover and increase the productivity and effectiveness of organisation. The study had also found that organisation has to give importance for the women employees who belongs to the age group from 25 to 35 because the women in that category have more responsibilities in home as well as in work place.

NEED/IMPORTANCE OF THE STUDY

Women plays variety of significant roles in family, workplace and in the society. They have to face several challenges and issues from the family and from work space. It is highly important to strike a balance between the family life and work life. Today in this 21st century where majority of women are working it is necessary to conduct a study on the work life balance. And particularly, as a part of the requirement of their job IT professionals and healthcare employees are required to work for even in night shifts.

STATEMENT OF THE PROBLEM

Work life balance is maintaining a harmony between employee’s work life and personal life. In this present study, Work Life Balance of women employees among the IT sector and Health care sector are studied and compared, as in these sectors employees are required to work on shift basis. Both these sectors had certain similarities that both jobs are increasingly opted by women and both the jobs have work shifts, including night shifts. This study presents how the women employees in IT and Health care sector in Ernakulam strikes a balance between work life and personal life.

OBJECTIVES

1. To compare the work life balance of women employees among health care and IT sector.
2. To identify the satisfaction level of women employees in IT and Health care sector.

HYPOTHESIS

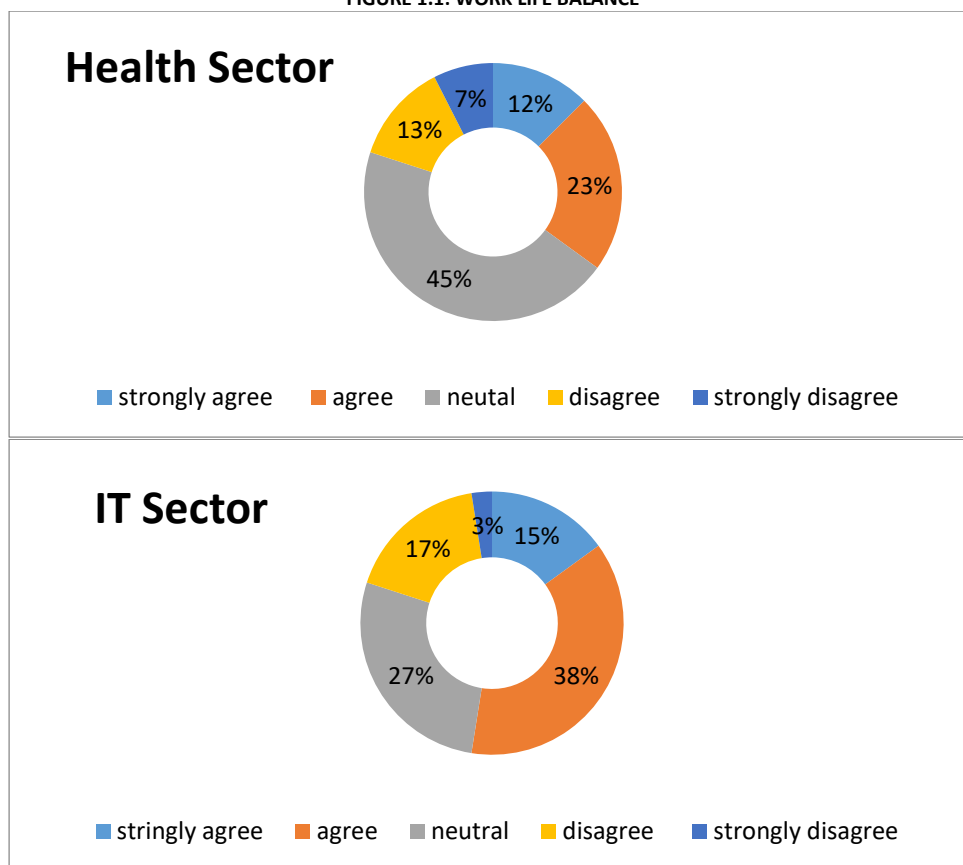
H₀: there is no association between the satisfaction of the employees and different working sector.
 H_a: there is association between the satisfaction of employees and different working sector.

RESEARCH METHODOLOGY

Descriptive analysis has been carried to study the work life balance of women employees among Hospital and IT sector. For the study both the primary data and secondary data were collected. Primary data was collected from 40 respondents each from healthcare and IT sector in Ernakulam District with the help of questionnaire using convenience sampling method. Secondary data is collected from various text books, journals, websites etc. For the analysis of data collected, various statistical tools like chi square test, charts, graphs etc. were selected.

RESULTS & DISCUSSION

FIGURE 1.1: WORK LIFE BALANCE

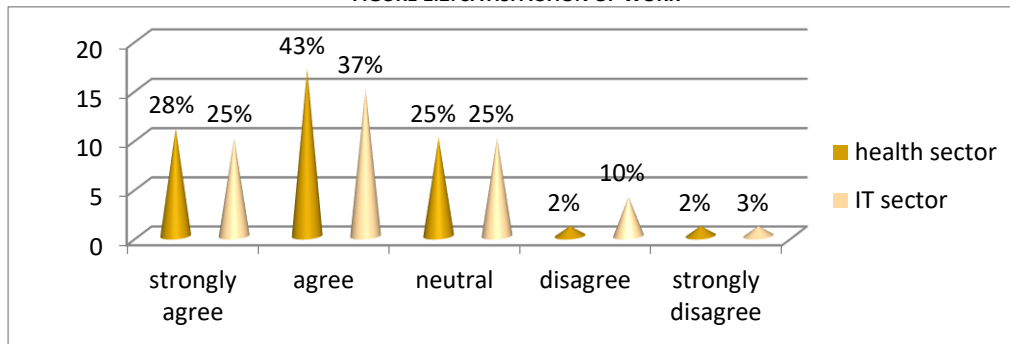


Source: primary data

INTERPRETATION

In case of maintaining a balance between work life and personal life, 12% and 15% of health sector and IT sector respectively able to maintain a balance between both. While comparing both sectors the IT sector employees are more able to maintain a balance, whereas in Health sector majority is rated neutral in maintaining a balance between both work life and family life.

FIGURE 1.2: SATISFACTION OF WORK



Source: primary data

Chi square test

H₀: there is no association between the satisfaction of the employees and different working sector.

H_a: there is association between the satisfaction of employees and different working sector.

Calculated value: 40.854

Table value: 16.919

Degree of freedom: 9

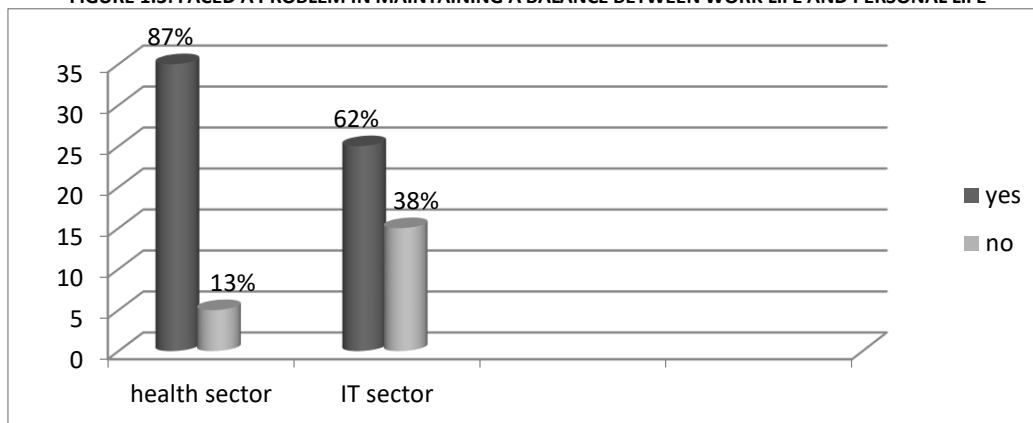
Level of significance: 5%

Since the calculated value is more than the table value, we reject null hypothesis; we accept the alternative hypothesis, so that there is significant association between the level of satisfaction of employees and the sector in which they are working.

INTERPRETATION

When comparing the satisfaction level, 28% employees of health sector strongly agreed that they are satisfied with the work, and 43% agreed that they are satisfied with work and only 2% strongly disagree that they are not satisfied with their work. In case of IT sector 25% are strongly agreed that they are satisfied with their work where as 3% said that they strongly disagree about the satisfaction level. When comparing both the sectors, it is in the health sector majority are satisfied.

FIGURE 1.3: FACED A PROBLEM IN MAINTAINING A BALANCE BETWEEN WORK LIFE AND PERSONAL LIFE



Source: primary data

INTERPRETATION

In case of healthcare sector majority of 87% women employees had faced a problem in maintain a balance between the work life and personal life, where as only 13% have not faced any problem. When it comes to IT sector less number of person when compared to health sector, less percentage of employees had faced a problem in maintaining balance between family life and work life.

FINDINGS

1. In IT sector majority are agreeing that they can maintain a balance between work life and personal life where as the majority of health sector employee has opted neutral.
2. There is significant association between the work satisfaction and the working sector. And work satisfaction is more in health sector than in IT sector.

RECOMMENDATIONS

1. Organisation should ensure consider the employees as the most valuable assets of their institutions, and they have to be provided with better working conditions, grant leave when there are emergencies, allow flexible timing, provide recreation facilities etc.
2. Avoid the continuous occurring of nigh shifts and long and tedious hours of working.
3. For the working mothers having small kids, the organisation should arrange childcare facilities in the workplace itself or near to the work place.
4. Provide training and awareness programmes about the importance of WLB.

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STUDY ON IPO REVIEW AND COMPANY PERFORMANCE: EVIDENCE FROM INDIA

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ABSTRACT

The IPO reviews and recommendation has been a part and parcel for the organizations going public since listing process had started in India. Initial public offering used to be assigned reviews, but now stock broking firms offer review and recommendations, which depend on the fundamentals of the organizations, should demonstrate quality signs about the future possibilities of the organization's exhibition and thus guarantee better returns from the interests in quality IPOs. This was done to help most of investors with the goal that they can make shrewd investments. The IPO review and recommendation is useful in characterizing the presentation of IPOs in Indian securities exchange. It is additionally discovered that the QIBs consider IPO reviews and recommendations fundamentally and thus likewise influences the general membership of the IPO. The review and recommendations was relied upon to improve the IPO pricing effectiveness by giving thorough issue-related data to the market, particularly to the retail speculators.

KEYWORDS

SEBI, IPO, IPO Review, IPO Recommendations, investors, stock broker agencies, listing, investment.

JEL CODE

G10

INTRODUCTION

IPO short form for the Initial Public Offering. It is an offer of shares by a company to the public unexpectedly. Without an IPO a company stays a secretly held company. The secretly held company have few shareholders. These shareholders may run from advertisers, who are the proprietors of the company, their relatives, companions, and family members. Some vital or expert investors may likewise hold the shares of a privately owned business-like financial investors, holy messenger investors or private value investors. Initial public offering reviewing is the review relegated by SEBI-enrolled credit rating agency or offices to a first sale of stock (IPO). The review speaks to an overall evaluation of the basics of that issue comparable to the next recorded protections in India. It should be noted here that the analysis of the IPO is handled without taking into account the value band in which the protection is provided in the IPO. Investors ought to make a free decision on the expense at which they can bid. On a five-point scale with a higher score indicating more grounded fundamentals and the other way around, such an evaluation is generally named. It is an attempt to provide investors with additional knowledge, allowing them to promote their assessment of the square's critical issues. It is not necessary for the issuer, however, to have its issue reviewed. For issuers with effect from February 04, 2014, the cycle was made discretionary.

Initial public offering evaluating is planned to run corresponding to the recording of the offer archive with SEBI and the resulting issuance of perceptions. Since the issuance of perceptions and the evaluating cycle work freely, IPO reviewing isn't relied upon to postpone the issue cycle. Then the review must be reported as required under the ICDR Regulations, regardless of whether or not the issuer considers the review provided by the rating agency worthy or not. They can't dismiss it. All items considered by the issuer have the option of selecting an alternate organization to select another evaluation. All feedback obtained for the IPO should be revealed in the deal reports and notes on such an occasion.

LITERATURE REVIEW

K. S. Manu and Chhavi Saini (2020) in research article published titled as, "**Valuation Analysis of Initial Public Offer (IPO): The Case of India**" The examination has been done to investigate the post-Initial Public Officer (IPO) execution of different organizations that have opened up to the world in 2017 utilizing occasion study strategy. The investigation found that in the short term, about 70 percent of the chosen IPOs are undervalued and the production of these IPOs in the short term is not affected by the age of the company, the size of the IPO issue, the possession area and the property of the advertiser after the issue.

Jhansi Rani Boda and Dr. G Sunitha (2018) in their article titled, "**Investor's Psychology in Investment Decision Making: A Behavioural Finance Approach**" conducted a study based on investors decision making by observing the factors influencing decision-making. The paper noted that many variables exist in the country and around the world, such as shifts in the political and economic landscapes and factors such as information distribution and accessibility, etc. However out of all this the most important factor is the investor's viewpoint and his reaction towards the existing situation.

Selvamathi.R and Dr. A.A.Ananth (2018) published an article titled, "**Analysis of long-run review wise performance of IPOs with CARS and BHARS**" stated that Initial public offering review is the review allocated by a Credit Rating Agency enlisted with SEBI, to the first sale of stock (IPO) of value shares or whatever other security which might be changed over into traded with value shares sometime in the not too distant future. The review speaks to a general evaluation of the basics of that issue comparable to the next recorded value protections in India.

Vishal Sarin1 and Neeru Sidana (2017) published an article that was titled as, "**A Study of Perceptions of Investors Towards IPO Review in India**" studied Initial Public Offering is viewed as the most extraordinary issue for a firm. In this paper it is attempted to discover impression of investors towards IPO review. This investigation depends on essential information gathered through an all-around planned organized questionnaire from 200 investors from Delhi and Chandigarh.

Ajay Sidana and Neeru Sidana (2017) in the article titled, "**Does Review of IPO in Indian capital market impede the problem of underpricing?**" Capital market of India is portrayed by information asymmetry and asymmetry of information has consistently prompted industrious and inescapable under evaluating in starting public contributions. With the purpose to connect this information asymmetry hole, SEBI presented a solid measure in type of IPO review with expectation of giving better dispersal of information to the advantage of Indian Investors. So retail investors can utilize this study to take better and educated venture choices.

Amanpreet Kaur and Balwinder Singh (2017) published an article titled, "**Examining SEBI's Edict: Mandatory to Voluntary IPO Review**" observed a significant milestone that occurred throughout the entire existence of India was Securities and Exchange Board of India's (SEBI) goal to make IPO review required with impact from 1 May 2007. The suggestion for the gullible investors is that the appraisal instrument apportioned by the market controller to settle on marvelous speculator decision was really demonstrating its value for them just as for the backer organization in bringing down the peculiarity they face through undervaluing. It was presumed that reviewed IPOs confronted lesser undervaluing, consequently making curious SEBI's decision.

Namrata N Khatri (2017) in the article titled, "Factors influencing Investors Investment in Initial Public Offering" examined Initial public offering review is the evaluation allotted by a Credit Rating Agency enrolled with SEBI, to the first sale of stock (IPO) of value shares or whatever other security which might be changed over into or traded with value shares sometime in the not-too-distant future. The evaluation speaks to an overall appraisal of the basics of that issue corresponding to the next recorded value protections in India.

Seshadev Sahoo (2016) published an article titled, "Signaling by IPO review: An Empirical Investigation" This paper researches the adequacy of IPO reviewing as affirmation. it finds that subscription rate changes across reviews (i.e., reviews = 1, 2, 3, 4, and 5). Utilizing a dataset of 116 IPOs gave during 2007-2011, it finds higher reviewed IPOs are less undervalued, and welcome more subscription across various investor gathering. Nonetheless, evaluating has little effect on post posting value instability.

STATEMENT OF PROBLEM

IPO Review refers to the review assigned by the Credit Rating Agency or a stock broking firm that is registered with SEBI to the initial public offer (IPO) of an equity share to be listed on the registered stock exchange. Investor behaviour refers to the manner in which an investor judges, predicts, analyse and reviews a particular avenue of investment before he/she makes a decision to invest or not. Various factors influence the decision of an investor. The list is not exhaustive. One such factor is IPO Review. It creates a perception in the minds of an investor whether or not to invest in the IPO. If an IPO receives, a good review the investor will be tempted to invest and at the same time if an IPO receives a bad review no matter what decision he/she had taken they will think twice before deciding to invest. It is imperative to study the impact of IPO Review on investor behaviour from the point of issue of the IPO to its performance over the next few years in order to get a clear picture on the impact.

OBJECTIVES OF THE STUDY

1. To determine the value addition by IPO reviews.
2. To analyse the performance of the listed stock, post the public issue
3. To determine the returns of the reviewed listings in short and long-term performance of company.

HYPOTHESIS OF THE STUDY

H₀: There is significant variance in the returns generated by different reviewed IPOs in the short and long run.

H₁: There is no significant variance in the returns generated by different reviewed IPOs in the short and long run.

RESEARCH METHODOLOGY

The information and the data for research are collected through secondary sources. Secondary research has been undertaken for this purpose. The sources of data collection include newspaper articles, published journal articles, reports and websites. Data has been collected from the website of Chittorgarh, NSE, BSE, Economic and Political Weekly Research Foundation (EPWRF) and other websites such as moneycontrol.com, investing.com for this purpose.

The variables are tested using EViews and Excel showing the performance of listed company.

ANOVA test have done for short run (i.e. 5 days, 10 days, 30days) and for long run (i.e., 6 Months, 1Year, 2Year and 5 Year).

RESULTS AND DISCUSSION

TABLE 1: IPO REVIEW ASSIGNED TO THE COMPANIES

COMPANY	REVIEW
InterGlobe Aviation Limited	Above Average Fundamentals. Subscribe
Coffee Day Enterprises Limited	Average Fundamentals. Neutral
VRL Logistics Limited	Strong Fundamentals. Subscribe
Dr Lal Pathlabs Limited	Above Average Fundamentals. Subscribe
Manpasand Beverages Limited	Below Average Fundamentals. Avoid
PNC Infratech Limited	Below Average Fundamentals. Avoid
Alkem Laboratories Limited	Average Fundamentals. Avoid

The reviews have been assigned based on the fundamentals and the market conditions which is compared to the other listed equities at the time of the IPO. Initial public offering review was acquainted with make extra data about unlisted companies or those with no history of their presentation accessible to the investors, assisting them with surveying the issue prior to investing. Review is extra investor data and help to empower educated venture decisions and more practical evaluating of offers. It helps giving companies in that in the event that they are given a higher score — showing more grounded fundamentals — they order a higher premium for their issue.

TABLE 2: EFFICIENCY OF IPO REVIEW BASED ON IPO SUBSCRIPTION

Company	Offer Price (₹)	Listing Price (₹)	Subscription Level	Review Efficiency
InterGlobe Aviation Ltd	765	877	6.15x Times	Average
Coffee Day Enterprises Ltd	328	271	1.82x Times	Average
VRL Logistics Ltd	205	294	74.26x Times	Excellent
Dr Lal Pathlabs Ltd	550	825	33.41x Times	Good
Manpasand Beverages Ltd	320	327	1.40x Times	Good
PNC Infratech Ltd	378	360	1.56x Times	Good
Alkem Laboratories Ltd	1050	1381	44.29x Times	Bad

The 7 IPOs have been taken with an intention to study their movements over a period of 5 years in order to get clear picture and make a decisive analysis. While 1 IPO is suggested to be neutral as to not to subscribe or avoid, the other 6 are either subscribe and avoid in order to maintain a balance. Based on the IPO Subscription levels it can be observed that the IPO Review efficiency is average. While for some companies it is reflecting effectively a company like Alkem Laboratories was heavily disregarded and the performance was exactly opposite.

TABLE 3: DAY SHORT RUN ANALYSIS THROUGH ANOVA SINGLE FACTOR TEST

5 DAYS						
Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
INDIGO ARI	5	62.6994	12.53988	12.16083		
DR LAL PATH LABS ARI	5	102.1258	20.42516	8.043052		
CCD ARI	5	-22.4864	-4.49728	0.457423		
ALKEM ARI	5	75.50294	15.10059	4.024746		
MANPASAND ARI	5	3.360187	0.672037	0.636943		
VRL ARI	5	89.53928	17.90786	1.696195		
PNC ARI	5	2.762486	0.552497	4.189142		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2912.556	6	485.426	108.8806	4.35E-18	2.445259
Within Groups	124.8333	28	4.458332			
Total	3037.389	34				

In 5-day, short run (between offer closing and listing), there significant variance in the returns generated by different IPO reviews.

TABLE 4: DAYS SHORT RUN ANALYSIS THROUGH ANOVA SINGLE FACTOR TEST

10 DAYS						
Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
INDIGO ARI	10	347.4942	34.74942	571.6951		
DR LAL PATH LABS ARI	10	389.6524	38.96524	394.4142		
CCD ARI	10	-101.043	-10.1043	36.66943		
ALKEM ARI	10	343.6583	34.36583	425.6832		
MANPASAND ARI	10	18.13365	1.813365	4.147619		
VRL ARI	10	167.9425	16.79425	2.997436		
PNC ARI	10	6.281748	0.628175	1.939013		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	23319.86	6	3886.644	18.92566	1.86E-12	2.246408
Within Groups	12937.91	63	205.3637			
Total	36257.78	69				

In short run (10 day), there significant variance in the returns generated by different IPO reviews.

Long Run Analysis Through Anova Single Factor Test

TABLE 5: 1 YEAR LONG RUN ANALYSIS THROUGH ANOVA SINGLE FACTOR TEST

1 year						
Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
INDIGO BHAR	365	8353.463	22.8862	284.6256		
DR LAL PATH LABS BHAR	365	25124.28	68.83366	385.0248		
CCD BHAR	365	-10028.5	-27.4753	110.1452		
ALKEM BHAR	365	16174.98	44.31502	380.4446		
MANPASAND BHAR	365	24863.16	68.11824	1225.519		
VRL BHAR	365	130557	357.6904	2564.337		
PNC BHAR	365	5898.135	16.15928	1898.087		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	35597355	6	5932892	6064.418	0	2.102139
Within Groups	2492739	2548	978.3119			
Total	38090093	2554				

In the long run (1 year between offer closing and listing), there is no significant variance in the returns generated by different IPO reviews.

TABLE 6: 5 YEARS LONG RUN ANALYSIS THROUGH ANOVA SINGLE FACTOR TEST

5 Years						
Anova: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
INDIGO BHAR	1272	35148.26	27.63228	541.8125		
DR LAL PATH LABS BHAR	1243	96214.69	77.40522	3775.716		
CCD BHAR	1078	-55698.1	-51.668	1085.91		
ALKEM BHAR	1244	68053.42	54.70532	897.6823		
MANPASAND BHAR	1119	3419.24	3.055621	8863.797		
VRL BHAR	1405	401848.9	286.0134	7273.369		
PNC BHAR	1388	-86776.8	-62.5193	2847.801		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.11E+08	6	18495126	5094.851	0	2.099629
Within Groups	31734862	8742	3630.16			
Total	1.43E+08	8748				

TABLE 7: OBSERVING IPO REVIEW EFFICIENCY

In the long run (5 years between offer closing and listing), there is no significant variance in the returns generated by different IPO reviews.

COMPANY	REVIEW	SUCCESS	REVIEW EFFICIENCY
InterGlobe Aviation Limited	Above Average Fundamentals. Subscribe	Average	Efficient
Coffee Day Enterprises Limited	Average Fundamentals. Neutral	Average	Efficient
VRL Logistics Limited	Strong Fundamentals. Subscribe	Excellent	Efficient
Dr Lal Pathlabs Limited	Above Average Fundamentals. Subscribe	Good	Not Efficient
Manpasand Beverages Limited	Below Average Fundamentals. Avoid	Average	Efficient
PNC Infratech Limited	Below Average Fundamentals. Avoid	Average	Efficient
Alkem Laboratories Limited	Average Fundamentals. Avoid	Excellent	Not Efficient

It is observed that the review has been effective in most of the cases. Although it would be brought to the notice that review itself is based on limited factors. It does not cover an untoward incident or frauds that take place. Therefore, it cannot be concluded that review has had the required impact.

SUMMARIES OF FINDINGS, SUGGESTIONS AND CONCLUSION

IPO Review is fundamentally ingenious concept. The fact that stock brokering firms study the fundamentals of a company going for public listing and giving a verdict whether to subscribe or not or stay neutral is potentially attractive concept on paper. However, when it comes to real life scenario where many factors have to be taken into the consideration the verdict is seen with a heavy limitation. IPO Review has had a mixed response when it comes to effectivity. The advantages notwithstanding, the discussion on the significance of IPO review will not subside. The discussion is heightened at whatever point the cost of a scrip slips beneath the IPO value, an IPO is removed in the wake of review or an exceptionally reviewed IPO does not excel on the bourses. These realities cannot be challenged. In any case, do they make IPO review immaterial? Surely not. This is because IPO review does not remark on the valuation or evaluating of an issue. Likewise, the cost being a market work, it is altogether feasible for exceptionally reviewed IPOs to do gravely on the bourses, particularly if the valuations were forceful and the market on a descending slide or the other way around. Largely, the essential motivation behind review is to fill in as an extra information, which is free and shown up at through a thorough diagnostic cycle, to help an investor's choice in buying in to an IPO. Presently, what weightage an investor allocates to an IPO review given to a stock involves individual judgment.

The insignificant function of review in IPO evaluating nearly recommends that review has not played out its normal part as a certification of the fundamental issue quality. The explanations behind the disappointment of this inventive certification could be many. It is maybe difficult to relegate dependable IPO reviews because of the remaining idea of the value money flows. Though credit rating depends on many sensibly quantifiable rules whose disappointment can be followed, the post-IPO stock execution has just a powerless manageability. This powerless manageability may not sufficiently boost agencies to relegate reviews equitably and, accordingly, disintegrates its part as a sound sign of IPO quality. In addition, the straightforwardness of books operating in India appears to allow potential retail bidders to benefit from the institutional investors virtually continuous interest schedule of IPOs. This could likewise make IPO review excess.

SCOPE FOR FURTHER STUDIES

The scope for further studies for this research paper:

1. The Study is based on limited number of IPOs it can be further expanded to add more companies and diversify the industries
2. The Study can further accommodate more variables such as movement of Index and RBI Lending rates that can affect the IPOs and determine their price movements.

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