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- 01 **Role of Servqual Dimensions in Evaluating the Service Quality of Fast Food Restaurants in the Rural Kashmir**
Syed Shoab and Mohit Sharma
- 02 **Efficiency Seeking Foreign Flows in Indian Automobile Sector**
Uma Chinchane and V. Gajapathy
- 03 **Consumption Patterns and Customer Expectations towards Marine Fishery Products in Coastal Andhra Pradesh**
V.V.Devi Prasad Kotni
- 04 **India's Trade Dynamics and Revealed Comparative Advantage with the BRICS Nations**
Kanhaiya Ahuja and Pallabi Mukherjee
- 05 **A study on digital transformation in payments: Customer preferences and adoption towards mobile wallets**
Subhashini .R and Shruthi .C
- 06 **Micro- stay hotels in India: An approach to hotel revenue optimization**
Nita Choudhary
- 07 **Perceived risk and Behavioural Responses of the general public during the COVID -19 Pandemic in the Delhi -NCR**
Radhika Soni, Manish Tomar and Shubham Riyal
- 08 **Digital disruption in the insurance industry- Opportunities & Challenges**
R Venkataraman and G Venkatesh
- 09 **Book Review: Good Economics for Hard Times**
Shikha Ojha
- 10 **Book Review: Social Entrepreneurship in India Quarter Idealism and A pound of pragmatism**
Uma Sharma



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RVIM Journal of Management Research

Aims and Scope

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

The Aims of RVIMJMR are to:

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

Scope of the Journal

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

- ◇ Banking, Financial Services and Insurance (BFSI)
- ◇ Business Ethics
- ◇ Business Intelligence (BI)
- ◇ Business Law
- ◇ Business Process Re-engineering (BPR)
- ◇ Change Management
- ◇ Corporate Governance (CG)
- ◇ Corporate Social Responsibility (CSR)
- ◇ Corporate Sustainability
- ◇ Cross-cultural Management
- ◇ Creativity and Innovation (CI)
- ◇ Digital Business
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- ◇ Enterprise Resource Planning (ERP)
- ◇ Entrepreneurship and Small Business Management
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- ◇ Global Business and International Management
- ◇ Green and Innovative Technologies
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- ◇ Human Resource Management (HRM)
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- ◇ Production and Operations Management (POM)
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- ◇ Risk Management
- ◇ Rural Management
- ◇ Strategic Management
- ◇ Technology Management
- ◇ Total Quality Management (TQM)
- ◇ Tourism and Hospitality Management

From the Desk of the Chief Editor...

It is our pleasure to present you the second issue of Volume 12 of RVIM Journal of Management Research. During this COVID-19 pandemic too the journal has continued to carry forth the research work of eminent academicians and practitioners in management since then. We are proud to inform that our journal has been indexed with JIFACTOR, J-Gate, Indian Citation Index (ICI) and Cosmos foundation with an impact factor of 5.395.

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

One of the most significant factors for the growth, success and decline of a service firm is the quality of services provided. In the first paper, the study is intended to evaluate the quality of services offered by the fast food restaurants operating in the rural parts of Kashmir. The study found that there is an overall customer satisfaction in the fast food restaurants in rural Kashmir yet there were few dimensions which could not play fairly enough to satisfy the customers relatively more namely the assurance and empathy.

Indian economy being the fastest growing economy has initiated significant new initiatives and structural reforms to attract FDI and the largest portion of foreign investments flow to Indian Automobile sector. The second paper attempts to evaluate the relationship between the efficiency of the firms and the foreign investments. It was found from the study that the efficiency of the firms and foreign inflows were different across the period of the study, stating that there were changes in the performance of the firms and also foreign investments of the firm

Marine fisheries sector forms an important sector for the Indian economy. It is not only contributing to the GDP of the country but also providing livelihood and providing food security for millions of Indians. The third paper deals with the findings of the study conducted in the coastal area of the Andhra Pradesh state to read the expectations of the customers towards marine fishery products. The study found that the fishermen should process the fish according to the expectations of individual customer and organizational customer.

BRICS is a community made up of the five big developing countries – Brazil, Russia, India, China and South Africa, which together account for around 42 per cent of the people, 23 per cent of GDP, 30 per cent of the globe and 18 per cent of world trade. The fourth paper deals with the trade dynamics of India with the other BRICS countries. Results demonstrate that India exports those commodities to particular BRCS countries in which it enjoys Revealed Comparative Advantage over a particular BRCS country.

Digitalization has transformed the payment and cash transaction much easier by using apps. Recently the physical payments have been transformed to digital payments. The fifth paper presents the results of the study which is carried out to find out the customer preferences and adoption towards mobile wallets in Bangalore. The study found that customers prefer mobile wallets as it provides convenience, lighter pockets and security.

Micro-stay hotels have paved the path for hospitality industry to meet the budding demands of millennial travelers and accommodate the market for mid-scale and small-scale hotels. The sixth paper attempts to present a vivid description of the emerging concept of micro-stay segment that is acting as a solution for hotels to augment revenue, by selling vacant rooms multiple times in a day.

COVID-19 is already a global concern and the World Health Organization has deemed it to be a pandemic, and this epidemic has spread from China around the globe. Seventh paper makes an attempt to understand the perception of the people in Delhi NCR during the novel Coronavirus and to identify various factors that may contribute to people's well-being. The outcome of the study indicates that there is ample knowledge and correct attitude for the current situation of pandemic, citizens in Delhi NCR to follow required and appropriate activities to keep safe from coronavirus spread.

Digital platforms offer a seamless customer experience shaping customer satisfaction and loyalty. However, it should be remembered that insurance as a business is known to guzzle capital with stringent regulatory norms and high client acquisition costs. The eighth and final paper brings the technology-enabled disruptions in insurance sector and the resultant challenges and opportunities for the sector as a whole.

The two book reviews in this issue, the first one on the book 'Good Economics for Hard Times' by Abhijit V. Banerjee & Esther Duflo and the second one on the book 'Social Entrepreneurship in India Quarter Idealism and A pound of pragmatism by Madhukar Shukla.

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

Happy Reading and Researching!

Purushottam Bung

Chief Editor

Contents

Role of Servqual Dimensions in Evaluating the Service Quality of Fast Food Restaurants in the Rural Kashmir	05
<i>Syed Shoaib and Mohit Sharma</i>	
Efficiency Seeking Foreign Flows in Indian Automobile Sector	16
<i>Uma Chinchane and V. Gajapathy</i>	
Consumption Patterns and Customer Expectations towards Marine Fishery Products in Coastal Andhra Pradesh	23
<i>V.V.Devi Prasad Kotni</i>	
India's Trade Dynamics and Revealed Comparative Advantage with the BRICS Nations	31
<i>Kanhaiya Ahuja and Pallabi Mukherjee</i>	
A Study on Digital Transformation in Payments: Customer Preferences and Adoption Towards Mobile Wallets	42
<i>Subhashini .R and Shruthi .C</i>	
Micro- Stay Hotels in India: An Approach to Hotel Revenue Optimization	47
<i>Nita Choudhary</i>	
Perceived Risk and Behavioural Responses of the General Public During the COVID -19 Pandemic in the Delhi -NCR	56
<i>Radhika Soni, Manish Tomar and Shubham Riyal</i>	
Digital Disruption in the Insurance Industry- Opportunities & Challenges	65
<i>Dr R Venkataraman and G Venkatesh</i>	

Book Reviews

Abhijit V. Banerjee and Esther Duflo, 2019, Good Economics for Hard Times	72
<i>Shikha Ojha</i>	
Madhukar Shukla, 2020, Social Entrepreneurship in India Quarter Idealism and A pound of pragmatism	74
<i>Uma Sharma</i>	

Role of Servqual Dimensions in Evaluating the Service Quality of Fast Food Restaurants in the Rural Kashmir

Syed Shoaib*

Dr. Mohit Sharma**

Abstract

One of the most significant factors for the growth, success and decline of a service firm is the quality of services provided. It is certainly a key element that ensures the survival of a service provider in the aura of stringent competition. Service quality as a subject of research gained popularity due to its attribute of being qualitative. In reference to the fast food restaurant industry, service quality manifests itself to be the most significant factor responsible for the survival and prosperity of a fast food restaurant. Moreover, it plays a crucial role in customer retention which ultimately leads to brand loyalty, thus profitability. This study was intended to evaluate the quality of services offered by the fast food restaurants operating in the rural parts of Kashmir. Furthermore, the course of this study was based on the Servqual model of service quality developed by Parasuraman, Zeithaml and Berry (1988). Simple random sampling was conducted through a self-administered questionnaire developed on the blueprint of the original Servqual research instrument provided with a five point Likert-type scale. The research instrument was found to be internally consistent and reliable with the help of reliability analysis using spss. The sample size for the study was 250 but the response of 218 respondents was considered for analysis. Data analysis was performed through a reliable statistical tool IBM spss. A comprehensive customer satisfaction was recorded by this study yet the quality remained below par in certain service quality dimensions. It was suggested that certain corrective measures would be helpful for increasing the service quality equally on all the five dimensions of Servqual model. Moreover, it was concluded that Servqual model of service quality is so far the most reliable and suitable tool for measuring customer satisfaction.

Keywords: Fast Food, GAP Model, Likert scale, Rural Kashmir, Service Quality.

Overview

According to Philip Kotler, "Service is any act or performance that one party can offer to another and that is essentially intangible and does not result in the ownership of anything" (Kotler, 2000). It is not just an action performed, but it is a reciprocation of skills, abilities and knowledge against a fair remuneration. Put together, a service is a desirable action or effort discharged to gratify a need or to clinch a demand. Services possess varied attributes such as perishability, which portends that unlike products, services cannot be stashed well ahead of time which makes it necessary that suitable plans must be undertaken so as to stretch a proper balance between the demand side and the supply of the services. Another attribute of the services is inseparability which is sometimes called as simultaneity represents that in order for the services to be consumed, both the provider and the consumer must be present at the same time. In essence, for a consumer to receive a haircut, both the barber and the consumer must be present at the time of service consumption. Similarly, variability means that a service can vary from one provider to the other or from one service encounter

to the other with the same person or different. Lastly, intangibility manifests that services do not possess the tangible or physical qualities like products. In other words, services being intangible, could not be touched, seen, felt or heard before their acquisition (Pena, Silva, Tronchin, & Melleiro, 2013).

Although, service functions are the primary and significant components of every industry (Commun., 2000), the service sector is associated with the production of services only and not the goods. In the \$63 trillion world GDP the contribution of services sector was approximately 68percent in the year 2001 (Economic Survey, 2010-12). The service industry, be it travel, leisure, entertainment or finance embraces activities requiring interaction and involvement between humans and machines. The services sector acts as the primary driver responsible for the growth of both developed and developing economies (Uwitonze & Heshmati, 2016). The findings of the United Nations Economic Commission for Africa (UNECA) argued that the services sector works as the boulevard in the process of transforming the economies since there is no competitive advantage pertaining to the manufacturing sector

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in all the countries of the world (UNECA, 2015). The development of economy through the ambit of services sector is the exclusive path to promote structural economic adjustment and accelerating the growth of economy (Zhou, 2015). Thus, it could be concluded that irrespective of a particular economy or any nation, the services sector on a global context acts as a bridge that connects the economies with development and prosperity.

Being the fastest growing and the largest sector of Indian economy, services sector has the highest productivity in terms of labour (Mukherjee, 2013). India ranks among the top 10 World Trade Organisation members in service exports and imports.

Undoubtedly, service quality is a substantial ingredient of competition in varied markets, be it conventional service industries or manufacturing sectors. Ample studies have emphasised the relationship between the service quality and the competition amongst the service providing firms and their findings have revealed that the service quality tends to increase with the intensification of the competition (Mazzeo, 2003) (Olivares & Cachon, 2009). In this present global business scenario, the competition being intense, the high quality service delivery has been reckoned to be critically important for the success of the service organisations. Every single sector of the economy is under enormous duress to offer its customers high quality services. Referring to this, the needs and expectations of the customers too is changing at a meteoric velocity which as a consequence urges the service providers to make certain that they have varied courses of action in place which are meant to ensure that the dynamic preferences of the customers are met with efficacy (Todd & Greig, 2007).

Literature Review

Service & Services Sector

The services sector acts as the primary driver responsible for the growth of both developed and developing economies. This sector of the Indian economy has manifested a rapid growth with momentous contributions to the gross domestic product and foreign direct investments (Uwitonze & Heshmati, 2016). A swift development of services requiring specific skills in the field of information technology was solely responsible for the rise in the service sector output (Iashmi & Kumar, 2012) (Das & Raut, 2014). Hotels and restaurants, banking, real estate, research and education, transport, electricity, medical and health, communications and many more comprise the services sector and a significant credit of the growth in this sector goes to the rapid urbanization. It is by virtue of urbanization that a huge workforce is supplied to the services industry that boosts its

growth. Moreover, the rise in demand for intermediate and final consumer services also adds on to the growth of services sector. Services are boundlessly used by different people in every sphere of life. From education to entertainment, finance to fast food, travel to telephone, advertisement to amusement parks, and market research to maintenance services and so on. The tremendous growth of services sector has resulted in its increased importance in the world economies (Singh & Kaur, 2014).

Service Quality

Service quality is the perception of the customer after the act of purchasing the service (Parasuraman et al., 1994). It is the level of discrepancy between a consumer's perception and his expectations along the quality dimensions (Parasuraman, Zeithaml and Berry, 1988), and the customers' overall impression of the relative inferiority or superiority of the organisation and its services (Bitner, Booms, & Mohr, 1994). The service quality is a significant element in the services industry with the help of which various services can be differentiated. The more the quality of the service provided, the more satisfaction the customers derive (Gupta & Chen, 1995) (Getty & Getty, 2003) (Tsang & Qu, 2000). A high service quality delivered to customers offers businesses an opportunity to differentiate themselves in competitive markets (Yavas & Benkenstein, 2007). In the present global business scenario, the competition is being intense and therefore, the high quality service delivery has been reckoned to be critically important for the success of the service organisations. Every single sector of the economy is under enormous duress to offer its customers high quality services. The works of Juran & Deming predominantly proposed the concept that product planning and quality are the preconditions for customer satisfaction which eventually led to the foundation of ISO 9000 standards. A substantial understanding of service quality and its distinction from product quality was however proffered by the literature published in late 70's and early 80's. The expectations serve as standards with which subsequent experiences are compared, resulting in evaluations of satisfaction or quality (Zeithaml, Berry, & Parasuraman, 1993). The belief that service quality is likely to be a powerful determinant of customer retention is by and large confirmed by the works (Cronin & Taylor, 1992), (Gundersen, 1996) (Kandampully & Suhartanto, 2000), Parasuraman et al. 1994, (Poon & Low, 2005). Hence, with service quality kept in sync the loyalty and customer retention ascends and in turn leads to business profitability.

Fast Food Restaurants & the Indian Food Service Industry

The fast food restaurants also known as fast food

restaurants include casual fast food restaurants and food trucks. Casual fast food restaurants offer the customers proper seating provisions. These casual fast food restaurants are a hybrid of classic counter-service fast food restaurants and traditional table service restaurants. On the other hand, food trucks are fast food restaurants on the wheels. These fast food outlets do not offer seating provisions. They are often parked outside the premises of various worksites, be it a factory, an office, an institution and the like. A number of studies have been conducted over the realms of time which have often dealt with service quality, customer satisfaction, customer loyalty and likewise, in context of the fast food restaurants (Aijaz & Ibrahim, 2011) (Wu, 2013) (Khan, Hussain, & Yaqoob, 2013) (Aftab, Sarwar, Sultan, & Qadeer, 2016) (Patabandige & Yapa, 2016). In reference to the global economic brotherhood, Indian economy has a remarkable position in the present day and has a seventh rank in terms of nominal gross domestic product whereas third rank in terms of purchasing power parity. As per the estimations, India will be one among the top three global economies by the financial year 2050 (Dabas & Lunawat, 2017). Food services have emerged as the indispensable segment of the Indian economy. In a report by National Restaurant Association of India, the comprehensive market size of the Indian food services industry was estimated to be worth INR 5.99 lakh crores in the year 2022-23, with a compounded annual growth rate of 9percent (NRAI, 2019).

SERVQUAL Model of Service Quality

Servqual is a service quality model developed by eminent researchers Parasuraman, Zeithaml and Berry, (1988). Since its inception it has been widely put in use for various researches across the globe. Service quality, a multifaceted concept, is perceived and assessed by consumers in light of an assemblage of certain vital components which were initially grouped in ten categories and later in only five (Parasuraman et al., 1985; 1988). These vital components were known as the five dimensions of service quality and were proposed in the Servqual model. Tangibility, Reliability, Responsiveness, Assurance and Empathy are the five dimensions of Servqual model. This model is based on a multiple item scale which was intended to evaluate the service quality by analyzing the possible differences between customer perceptions of a firms' performance and customer expectations thereof. Servqual has actually been applied as a basis for evaluating the service quality in multiple contexts such as retail apparel speciality stores (Gagliano & Hathcote, 1994), higher education (Galloway, 1998), hospital services (Hwang, Eves, & Desombre, 2003), and health club services (Walker & Baker, 2000). With certain suitable modifications, Servqual scale has

been over the periphery of time used by a number of researchers and practitioners to evaluate the service quality in their studies (Atilgan, Akinci, & Aksoy, 2003) (Devi & Ross, 2003). As argued by (Lewis & Booms, 1983), Servqual is the most widely used instrument for measuring the service quality. Similarly, (Bojanic & Rosen, 1994) have referred to Servqual as an unmatched tool for managerial actions. Many researchers such as (Akbaba, 2006), conducted a research to measure the service quality in the hotel industry in Turkey using Servqual model of service quality. His study validated the usefulness of Servqual scale in service quality measurement. According to... literature, service quality is important in reference to its affirmative correlation with customer satisfaction, customer retention and business patronage, costs, profitability and competitive advantage, and the Servqual model significantly contributes in assessing the same.

Research Gap

Despite of the fact that a number of studies have been carried out globally to evaluate the quality of services in various economic sectors, yet not much work in this aspect has been done in fast food sector especially in the state of Jammu & Kashmir, known to the best of my knowledge. As commonly acknowledged by the name Heaven on earth, the state of Jammu and Kashmir is a world renowned tourist destination with millions of tourists flying in from diverse parts of world every year. As a consequence, it has become a multi cultural hub with a great influence of diverse cultures of the world. In view of this, there has been a rise in the fast food restaurant culture in Jammu & Kashmir in the past few years. Therefore, it becomes quite essential to evaluate the service quality associated with the fast food restaurants operating in the state of Jammu and Kashmir. In order to bridge this research gap, this study has taken up the errand to evaluate the service quality of the fast food restaurants operating in the rural parts of Kashmir.

Research Methodology

Objectives of the Study

The principle intent of the present study is to evaluate the role of the dimensions of service quality in determining the service quality in the fast food restaurants operating in the rural parts of Kashmir. Furthermore, this study aims at analyzing the aspects where the service quality could be enhanced further to achieve the maximum profit for the fast food restaurants. Moreover, this study will emphasize the differences between the expectations and the perceptions of the customers in context of these fast food restaurants. Detailed outlines of the objectives of this study are as follows:

Conduct an assessment of the perceptions and the expectations of customers with respect to the fast food restaurants in rural Kashmir.

Perform a GAP analysis to identify the differences between customer perceptions and expectations.

Determine the significance of service quality dimensions to find out which dimension influences service quality the most.

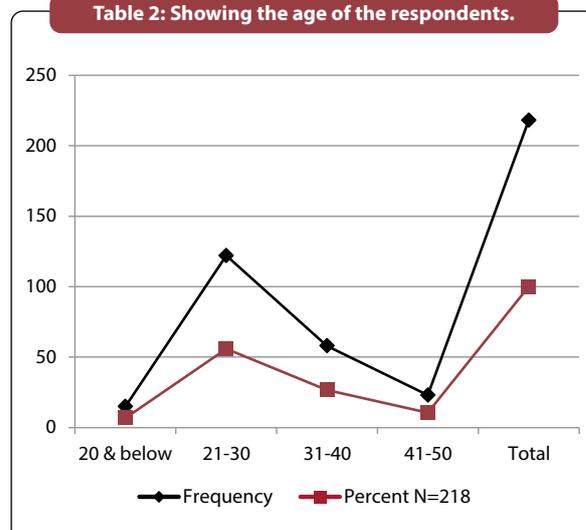
Sample Design & Data Analysis Techniques

The target population for this study was the people in the rural areas who have atleast visited a fast food restaurant once. The technique of sampling used in the present study was Snowball sampling technique which is a non probability sampling technique and is employed when the target population is difficult to locate. Responses from a total of 300 customers were collected from selected fast food restaurants through the questionnaire developed in consonance with the Servqual scale (Parasuraman et al., 1988). After a thorough revision, 218 questionnaires were finalized to be included in the research analysis of this study. Most researchers consider a sample size of 200–500 respondents adequate for most of management researches (Hill & Alexander, 2006; Tabachnick & Fidell, 2013).

The data analysis techniques incorporated in the study were Cronbach’s coefficient popularly known as Cronbach’s α (alpha), Factor analysis, Pearson’s correlation coefficient, statistical mean, gap analysis and t-test(2-tailed). As a part of the research analysis a frequency analysis was done for the purpose of examining the distribution of varied variables which are based on the demographic elements of the respondents such as gender, age, annual household income, occupation.

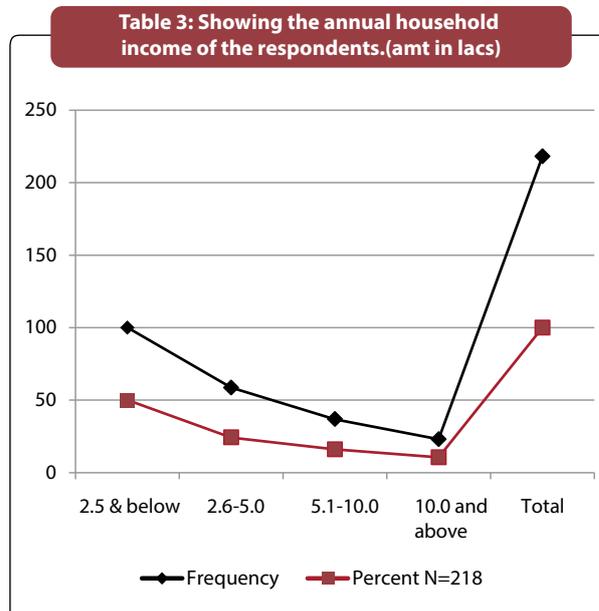
The above table 1 shows that 91 respondents were male forming approximately 42% of the sample size and 127 respondents were females forming approximately 58% of the sample size.

Table 2: Showing the age of the respondents.



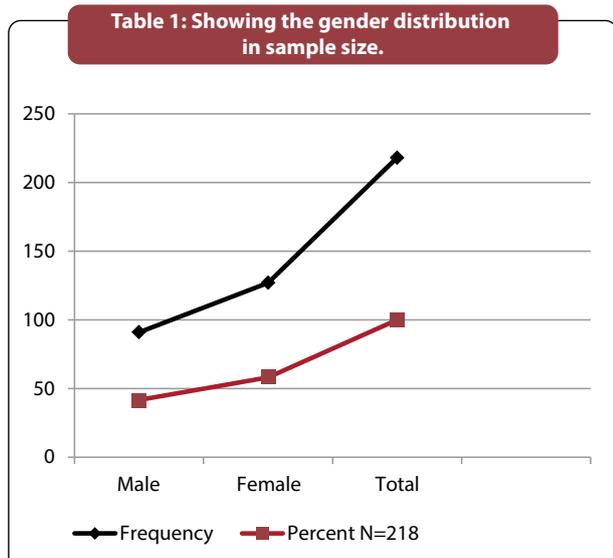
The above table 2 shows that 15 respondents were of the age group of 20 and below, 122 respondents were of the age group of 21-30, 58 were in the third category and 23 in the fourth category respectively.

Table 3: Showing the annual household income of the respondents.(amt in lacs)



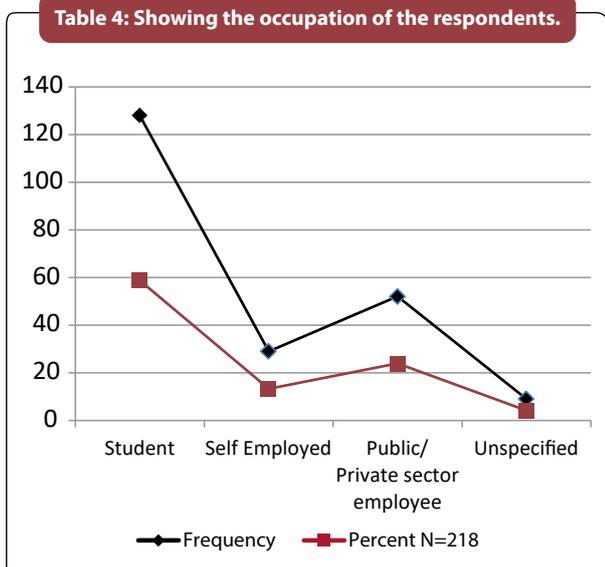
The table 3 above shows the annual income distribution of the respondents where approx. 47 percent of the respondents belonged to the income category of 2.5lacs and below. 26 percent of respondents belonged to the income category of 2.6lacs – 5.0lacs. 19 percent respondents belonged to the category of 5.1lacs – 10.0lacs and approximately 8 percent of the respondents were from the income level of more than 10.0lacs.

Table 1: Showing the gender distribution in sample size.



The table 4 above shows the profession of the respondents where 128 respondents were students, 29 respondents were self employed, 52 respondents were employees and 9 respondents chose not to share their profession forming approximately 59, 13, 24 and 4 percent of the sample size respectively.

Table 4: Showing the occupation of the respondents.



Data Analysis and Results

Test of Validity and Reliability

An internal consistency analysis known as Cronbach's - α was performed to evaluate the reliability and validity of the research instrument (questionnaire). The Cronbach's α reliability analysis was performed through statistical application software known as IBM SPSS (version 20). The value of the Cronbach's coefficient came out to be 0.928 for N of items 44.

Table 5: showing the Cronbach's coefficient for the overall questionnaire.

Cronbach's - α	No of items
.928	44

The Cronbach's coefficient ranges from 0 to 1, with higher values indicating greater internal consistency. The accepted threshold for Cronbach's α is .70 (Nunnally & Bernstein, 1994), however, even lower values (in the .60's) are common (Peterson, 1994).

Cronbach's - α was performed on each dimension individually and it was found that the values of Cronbach's coefficient in all the dimensions were more than the accepted threshold therefore validating the reliability and validity of the research instrument.

In order to evaluate if the data was significant and viable enough to be considered for factor analysis,

Table 6: showing the Cronbach's coefficient for the overall questionnaire.

Dimension	N of items	Cronbach's - α
Expectation		
Tangibles	5	.808
Reliability	4	.792
Responsiveness	4	.746
Assurance	5	.836
Empathy	4	.751
Perception		
Tangibles	5	.812
Reliability	4	.798
Responsiveness	4	.745
Assurance	5	.841
Empathy	4	.757

Kaiser-Meyer-Olkin measure of sampling adequacy along with Bartlett's test of sphericity was performed.

Table 7: Showing KMO and Bartlett's test for factor analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.699
Bartlett's Test of Sphericity	Approx. Chi-Square	571.230
	df	45
	Sig.	.000

The values above .60 in the Kaiser-Meyer-Olkin (KMO) test are considered adequate for factor analysis whereas in this study the value of Kaiser-Meyer-Olkin test came out to be .699 which was quite more than the basic criterion. Along side of the Kaiser-Meyer-Olkin test, the Bartlett's test of sphericity returned the results of .000 which is below the level of .01 considering the data significant enough for factor analysis.

The first objective of this study was to assess the perceptions and the expectations of the customers in the fast food restaurants in rural Kashmir with respect to the customer satisfaction they derived from the quality of the services provided. In the same context, statistical means of the perceived and expected service quality was calculated and through the calculated statistical means, the service quality gap analysis was performed on each variable individually so as to address the second objective of the study which was aimed at performing a gap analysis to observe the differences between the customer perceptions and the customer expectations in regard of the service quality provided by the fast food

restaurants. A detailed analysis of each dimension along with the detailed explanation follows as here under:

Table 8: Showing means of perception and expectation in tangibility with GAP score.

Tangibility			
Variables	Values		
	Perceived Mean	Expected Mean	GAP
1. The restaurant will be appealing in terms of its appearance and ambience. 1. The restaurant was appealing in terms of its appearance and ambience.	4.05	3.94	.11
2. All machines and equipments used would be of modern technology. 2. All machines and equipments used were of modern technology.	3.78	3.66	.12
3. The staff must be neatly dressed and following a professional dress code. 3. The staff was neatly dressed and followed a professional dress code.	4.02	3.89	.14
4. The restaurant will have neat and tidy washroom(s). 4. The restaurant had neat and tidy washroom(s).	4.14	3.95	.18
5. The restaurant will have an adequate and convenient parking facility. 5. The restaurant had adequate and convenient parking facility.	3.66	3.39	.28
AVERAGE TOTAL	3.93	3.77	.16

From the data analysis, it was observed as in the table above, that the perceived mean of every variable is on the higher side since the scale used had 1 as the lowest value and 5 as the highest. As was evident from the results above, variable one and variable four have the highest mean value in the perceptions and the expectations with values 4.05 and 3.95 respectively showing the high customer satisfaction. Further, variable five in both the perceptions and expectations shows a low mean representing a relatively lower customer satisfaction.

The gap analysis found out that there is a positive gap between all the variables of the tangibility

dimension representing customer satisfaction. Since the more the gap score, higher will be the customer satisfaction, variable five showing the highest gap score at .28 whereas variable one with relatively lesser gap score at .11. It was thus found that the customers were satisfied with the overall tangibility dimension of the service quality.

In other words it could be inferred that the customers were satisfied with the appearance and ambience, use of modern equipments, aesthetic arrangement of the staff, cleanliness of washrooms and of course the convenience of the parking facility of the fast food restaurants.

Table 9: Showing means of perception and expectation in reliability with GAP score.

Reliability			
Variables	Values		
	Perceived Mean	Expected Mean	GAP
1. The requests of the customers would be honoured within a short time. 1. The requests of the customers were honoured within a short time.	3.93	3.77	.16
2. The staff would be readily available for any assistance of the customers. 2. The staff was readily available for any assistance of the customers.	4.20	3.93	.27
3. The services would be delivered within the exact time as committed. 3. The services were delivered within the exact time as committed.	3.68	3.55	.13
4. The staff would be dependable in terms of resolving problems if any. 4. The staff was dependable in terms of resolving problems if any.	3.74	3.68	.06
AVERAGE TOTAL	3.89	3.73	.24

Data analysis in the table above represents the output results regarding the reliability dimension of service quality. Likewise the tangibility, the reliability too displayed a positive correlation between the

service quality and the customer satisfaction. From the results, it was inferred that the customers were satisfied the most with the assistance handling by the staff with the highest perceived service quality mean

of 4.20 followed by the time taken to honour the customer requests with perceived value of 3.93, then the dependency on the staff in case of problems with mean value of 3.74 and lastly with the exactness of time in which service was delivered to the customer with the perceived mean value of 3.68.

The gap analysis represented that with positive gaps throughout all the variables of the reliability dimension of service quality, it was inferred that the customers were satisfied with the overall reliability of the fast food restaurants in rural Kashmir.

From the above table exhibiting the data analysis results of the responsiveness dimension of the service quality, it was inferred that the customers were satisfied at the highest level with staffs' willingness to offer any help to the customers displaying a mean

score of perceived service quality at 4.02 which was followed by grievance redressal system bearing a mean value of 3.99. Furthermore, the data showed that the customers were satisfied with the prompt service delivery of the fast food restaurants with a mean value of 3.98 and the instant request handling by the staff with mean value of 3.82.

The gap analysis revealed that all the variables exhibited a positive gap with variables one and four displaying highest gap score of .34 and .30 respectively and variables two and three with gap scores of .16 and .17 respectively. With an overall all gap score of .24, it was inferred that the customers were satisfied with the overall responsiveness of the fast food restaurants in the rural Kashmir.

Table 10: Showing means of perception and expectation in responsiveness with GAP score.

Responsiveness			
Variables	Values		
	Perceived Mean	Expected Mean	GAP
1. The restaurant must be having a prompt service delivery. 1. The restaurant had a prompt service delivery.	3.98	3.65	0.34
2. All the customer requests would be instantly honoured by the staff. 2. All the customer requests were instantly honoured by the staff.	3.82	3.66	0.16
3. Every staff member would be willing to offer any help. 3. Every staff member was willing to offer any help.	4.02	3.85	0.17
4. The staff will be quite helpful in redressing any grievance. 4. The staff was quite helpful in redressing any grievance.	3.99	3.70	0.30
AVERAGE TOTAL	3.96	3.71	0.24

The data in the above table as extracted after data analysis made several inferences regarding the

assurance offered by the fast food restaurants of rural Kashmir. It was observed that customers were

Table 11: Showing means of perception and expectation in assurance with GAP score.

Assurance			
Variables	Values		
	Perceived Mean	Expected Mean	GAP
1. The interaction with the staff would be decent and satisfactory. 1. The interaction with the staff was decent and satisfactory.	4.04	3.94	0.10
2. The staff will have proper and adequate knowledge of their jobs. 2. The staff had proper and adequate knowledge of their jobs.	4.09	3.94	0.15
3. The staff members will be supported by their superiors. 3. The staff members were supported by their superiors.	3.74	3.58	0.16
4. Every staff member will work towards making customers feel safe and comfortable. 4. Every staff member worked towards making customers feel safe and comfortable.	3.99	3.81	0.18
5. The restaurant managers will assure the safety of customer's transactions. 5. The restaurant managers assured the safety of customer's transactions.	4.09	3.99	0.10
AVERAGE TOTAL	3.99	3.85	0.14

most satisfied by the knowledge of the staff in context of their jobs and safety assurance offered by the restaurant managers to their customers for the transactions they made with the mean value of 4.09 each. It was further revealed that the customers were also satisfied by the decency in the interaction with the staff, staff’s initiatives towards making their customers feel safe and the support provided by the

managers to their subordinates with mean values 4.04, 3.99 and 3.77 respectively.

The gap analysis revealed that like all the preceding dimensions of service quality assurance also had positive gaps in all the five variables representing the customer satisfaction. The overall gap score of .14 exhibits that the customers are well satisfied by the overall assurance provided by the fast food

Table 12: Showing means of perception and expectation in empathy with GAP score.

Empathy			
Variables	Values		
	Perceived Mean	Expected Mean	GAP
1. Customers will get individual attention by the staff. 1. Customers received individual attention by the staff.	3.64	3.57	0.07
2. The restaurant staff will understand the needs of the customers. 2. The restaurant staff understood the needs of the customers.	3.85	3.71	0.14
3. The hours of operation would be very convenient. 3. The hours of operation were very convenient.	3.81	3.70	0.11
4. The staff and the managers will act in the best interest of the customer. 4. The staff and the managers acted in the best interest of the customer.	3.83	3.74	0.09
AVERAGE TOTAL	3.78	3.68	0.10

restaurants in rural Kashmir.

The data analysis shows that even though the gap scores of some variables in the empathy dimension of service quality are low showing a less customer satisfaction yet the overall perceived mean value

at 3.78 represents a significant level of customer satisfaction with empathy provided by the fast food restaurants to their customers. The customers, as exhibited by the data above were satisfied by the restaurants’ way of understanding the needs of

Table 13: Showing Pearson’s correlation coefficient.

Paired Sample Test			
		Service Quality	Customer Satisfaction
Service Quality	Pearson Correlation	1	.813
	Sig. (2-tailed)		.000
	N	218	218
Customer Satisfaction	Pearson Correlation	.813	1
	Sig. (2-tailed)	.000	
	N	218	218

the customers at mean value 3.85 followed by the managers’ actions in the best interest of the customers 3.83, the convenience in the hours of operation 3.81 and lastly the individual attention given by the staff to their customers with mean value 3.64.

The gap analysis puts forth that the overall gap score being positive represents that the customers were satisfied by the empathy provided by the fast food restaurants of rural Kashmir.

Furthermore, this study performed a t test for each

dimension to reveal the most significant dimensions that satisfied the customers the most.

It was found that there was an overall significance in the model with most of the dimensions below the p-value of >0.05. Furthermore, it was found that the customers were most satisfied by the Tangibility, Reliability and Responsiveness as given by the p-value of < 0.05 and relatively least satisfied by Empathy with p-value >0.05.

In order to examine the nature and strength of the correlation between the service quality and the

customer satisfaction in the fast food restaurants of rural Kashmir, Pearson's correlation coefficient was calculated. The value of Pearson's correlation coefficient varies between +1 and -1 representing a positive and negative correlation respectively. The significance is calculated at 0.01 level. As is evident from the data in the table above, it is quite clear that

there is a highly positive relationship between customer satisfaction and service quality with the value of Pearson's coefficient at .813. As regards the significance which was calculated at 0.01 level, the significance values at .000 are less than the value of 0.01 which represents that the relationship between the customer satisfaction and service quality is significant.

Table 14: Showing paired sample t test outcomes.

Paired Sample Test			
Variables	t-statistic	Sig. (2-tailed)	
Perceived Tangibility & Expected Tangibility	3.323	.00	
Perceived Reliability & Expected Reliability	2.871	.00	
Perceived Responsiveness & Expected Responsiveness	6.733	.00	
Perceived Assurance & Expected Assurance	1.626	.106	
Perceived Empathy & Expected Empathy	.683	.496	

Conclusion

The analysis of data laid out that there is an overall correlation between the service quality offered by the fast food restaurants in rural Kashmir and the customer satisfaction. The individual mean and gap score analysis exhibited that the customers were satisfied with the tangibles of the fast food restaurants as well as with their reliability. Moreover, the fast food restaurants were successful in satisfying their customers in responsiveness too. Although, the gap analysis represented that there is an overall customer satisfaction in the fast food restaurants in rural Kashmir yet there were few dimensions which could not play fairly enough to satisfy the customers relatively more namely the assurance and empathy with p-values greater than 0.05 as analyzed by the t - test.

Suggestions

This study further suggests that there is enough scope where the service quality could be made better so as to achieve the higher customer satisfaction. The dimensions such as assurance and empathy need to be worked upon. The fast food restaurants in rural Kashmir need to keep customers more informed and make them more comfortable and take care of their needs. Prioritizing their customers and making them feel they are unique and special would definitely raise the customer satisfaction in both the assurance and empathy dimension and therefore the overall service quality.

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Efficiency Seeking Foreign Flows in Indian Automobile Sector

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Abstract

India remains the fastest growing economies and the top market for attracting FDIs in the world. The Country has also seen a sizeable inflow of foreign investments in manufacturing sector. Among the manufacturing sectors, the automobile sector tops the list of the largest attracter of foreign flows. A firm's performance is measured through key financial ratios, market performance, and efficiency. Studies focused on efficiency have benchmarked firms for its operations and cost effective performances. Firms reach level of efficiency, when they are able to produce maximum output with a given amount of input. Indian Government's new policy regime on Foreign Direct Investments has invited 100 per cent FDI in Indian Automotive sector. Capital is a key factor to the production and foreign capital, which aim at maximising investment need and look for efficient firms. In this context, the study focuses to measure efficiency of Indian automobile firms and to relate foreign flows in those companies as a result of efficient operations. The purpose of the study is to classify the firms which are efficient from the inefficient and to test whether the efficient firms attract better foreign capital. The study has been conducted for selective automobile concerns in India for a period of last 10 years.

Keywords – Automobile sector, Capital Investment, Efficiency, Foreign Direct Investment, Manufacturing sector.

JEL classification: L62, D24, H21, F 21, L6

Introduction

The Indian Government has always been slow and steady for involving foreign investments in its economy. Acceptance of LPG policy was a game changing decision taken by the government of India to enhance international competitiveness by allowing other countries to enter Indian Markets. Though this policy bought significant shifts in the economy, the government had only allowed foreign investments in few selective sectors. Now along with subsequent reforms process and the initiation of Make in India, nation has witnessed a new trend in foreign inflows into the country. This is a result of liberal policy reforms with lesser restrictions and regulations, that India stands today as the top market for attracting FDI. According to Data released by RBI, the country's FDI for the year 2018 was 37366 million US\$ dollars (Appendix Tables Appendix Table 19: Foreign Direct Investment Flows To India ;, 2012).

Earlier to 1982 Automobile industry of India had only 5 players, where buyers had to wait for long to buy out-dated models. The era of Automobiles started only when government of India and Suzuki formed Maruti Udyog, many component manufacturers entered India through Joint ventures and the sector became buyers' market. Since then, government of India has planned a set of policy reforms and has bought

structural changes to enhance the sector. Today Indian Automobile Industry is the 4th largest in sales and 7th largest manufacturer of commercial vehicles. Indian Automobile sector attracts the largest portion of Foreign inflows among the available sectors.

A firm's performance is measured through key financial ratios, market value and efficiency. Efficiency of the firm measures the effective utilisation of resources for achieving the desired level of production or returns. Studies performed on efficiency state that it is a model, built on a linear mathematical algorithm, which measures the performance of selected companies. From the previous Literatures, it has been observed that efficiency can be measured in both ways as input oriented and output oriented returns to scale methods. Capital is the key factor necessary for production and foreign investments, contribute towards capital infusion. Firm's looking for FDI investment, prefer to invest in companies with better efficiency.

The existing studies state that, the efficiency of the firm acts as determinant of Foreign Inflows for the firm (Aseidu, 2002). Thus, the aim of the study is to evaluate the efficiency of companies and then test for association between the efficiency of the firm and Flow of Foreign inflows into the firms.

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Review of Literature

(Nayak, 2005) in his paper, studied the case of Suzuki Motors and the investment of Suzuki motors in India. The author used case study approach to study the automobile industry performance prior to entry of Suzuki Motors in India, and the success of foreign investments in Indian Automobile industry. In light of this objective, the author identifies, holistic model in the way Suzuki motor's strategic investment patterns in complementary business helped the firm to succeed.

(Nag et al., 2007) the authors have studied the merger & restructuring of automobile firms in the emerging economies. The Objective of the study is to examine role of governments of Asian economies on the growth of automobile firms. The paper also focuses on trade patterns and change in ownership structures of automobile sector.

(Saranga, 2009) analysed the performance of auto component industry from original equipment manufacturer and component suppliers point of view. Using DEA analysis on the financial data on a sample of 50 firms, the authors have computed technical, input mix and scale efficiencies. The study finds that majority of inefficient firms are operating at lesser efficiencies. The authors, then identified that substitution of labour and capital is causing inefficiencies. The study reveals that, Indian auto component industry should focus on higher average inventories to achieve higher operational efficiencies.

(Hanousek et al., 2012) the authors conduct a study to investigate the effectiveness of firms in Czech Republic. They study the evolution of efficiency in the country by taking a large sample of 19000 firms. Using Panel data analysis, the researchers study, whether the firms use their resources efficiently and in the second part of the study they try to compare the efficiency of the firms with the ownership structure the firms hold. The results of the study reveal a positive relationship between the foreign ownership and efficiency. Further it also clears out that a firm with majority in the corporate structure has no role to play the level of efficiency the firm achieves.

(S. K. Sharma & Raina, 2013) used data envelopment analysis to study the performance of automobile firms. The study was carried out for a panel data through key efficiency indicators. It was found that automobile firms are technically inefficient during the considered period of study. The author finally suggests that, there is a need to focus on the input targets to achieve better efficiency results.

(Çalmaşur, 2016) in their paper conducted technical efficiency analysis for the Turkish automotive industry for a period of 20 years. Using the stochastic

frontier analysis, they observed that there is a positive relationship between the capacity utilisation ratio, firm size, foreign capital ratio and export intensity; and negative relationship with the firm age and technical efficiency. However, the study can also be conducted using different methods for evaluating the technical efficiency of the automotive firms.

(Jiang et al., 2018) using the Malmquist model of Data Envelopment Analysis, the authors measured the efficiency of 77 automobile firms listed as A share in China. The authors have taken operating income as an output variable and fixed assets, operating expenses, intangible assets and number of employees as their input variables for the model. The study results reveal that, the five year indices of these firms has decreased due to technical change and improvement of the efficiency change.

(Sur & Nandy, 2018) In this paper author tries to study the spill over effect of FDI on efficiency of Indian automobile firms. The author has computed technical efficiency of the foreign and domestic firms independently and then compares both results. The results of the study reveals that, the foreign firms have better technical efficiency as compared to domestic firms; also the young firms both domestic and foreign firms are more efficient and due to the inward orientation the domestic firms were unable to achieve benefits from exporting activities.

The list of above literatures, studies have been conducted to measure the efficiency, productivity of automobile firms across various countries. Many authors have conducted research on the motives for attracting Foreign Direct Investments in to their countries. One such motive is efficiency seeking motive of foreign investments in host country. There are very few studies been conducted on measuring the efficiency of the firms and then comparing the same with inflow of foreign capital (Hanousek et al., 2012). Therefore, the present paper focuses on Comparing the efficiency of Indian Automobile firms with the level of foreign investments.

Technical Efficiency

The technical efficiency is commonly defined as the level of production of firms with regard to the utilisation of input resources in generating the desired level of outputs. When one talks about the efficiency of the firm, it usually means the success of firm in producing large outputs from a given set of inputs, provided all inputs and outputs are measured correctly (Farrell, 1957). Efficiency frontiers can be studied either through parametric approach or non-parametric approach. The non - parametric approach which has been used in the study is developed using mathematical programming called as Data Envelopment Analysis (DEA). DEA uses linear

programming method to estimate the efficiency of firms, which are usually termed as Decision Making Units (DMUs) (Charnes et al., 1978). The DEAP Package is an application tool created for quick computation of efficiency of the firms under simple productivity models, such as Constant returns to Scale (CRS) and Variable returns to Scale (VRS).

This paper is based on measuring the technical efficiency of automobile firms, using a CRS model for 2 input and 1 output model. Where the CRS model measures the efficiency of the firm in producing the same outputs by minimising the inputs required in the production. The model is based on an Input Oriented Approach to estimate the lesser amount of inputs necessary to produce the required level of outputs.

Since Automobile industry is a capital intensive industry for producing automobiles and components the finance invested in the firms plays an important role in production. The cost of labour in the automobile industry is one input expense which influences the production output. (S. Sharma, n.d.). Thus the study considers the Finance cost and employee cost as two major input variables. As Operating profit reflects the revenue generated out of the total production, the component is used as output variable.

Research Methodology

Nature of the Study

This study has been conducted based on quantitative data. Secondary data collected from company's annual reports has been considered for analysis. Thus, it is a quantitative study. The study is also an analytical study as it aims to test for association between efficiency of Indian automobile firms and foreign inflows in Indian automobile firms.

Objectives of the Study

1. To evaluate the technical efficiency of the Automobile companies under study;
2. To test the association between the efficiency and the foreign inflows;
3. To analyse whether the efficiency has relation with foreign investment inflows.

Research Hypothesis:

H₁: There is a significant difference in the efficiency of the firm.

H₂: There is a significant difference in the foreign inflows of the firms.

H₃: There is a relationship between efficiency of the firm and the foreign investment inflows in the firm.

Collection of Data

Six automobile companies were selected for the study. The ten years' data for all six companies was collected from the company's annual reports. The information on the inputs and output variables is collected from the secondary sources.

The data related to finance cost, employee cost, operating income was collected to run DEA analysis. The data related to foreign investment inflows were collected to test for association.

Tools used for Analysis

Data Envelopment Analysis: with the data collected from the annual reports, input oriented constant returns to scale model is adopted for testing the technical efficiency of the firm. Here in this model of two input one output Constant returns to scale the following data was considered.

Present study uses the CCR model was introduced by (Charnes et al., 1978). This model measures the efficiency of each DMU which is obtained as a maximum of the ratio of total sum of weighted outputs to total sum of weighted inputs. Consequently, in this paper, we use input oriented CRS model to calculate the technical efficiency for 10 years (2008-09 to 2017-18), which is defined as follows:

Efficiency of the firm = Weighted sum of the outputs / Weighted sum of inputs

In this study,

1. Two inputs, i.e., employee benefit expenses and finance cost;
2. One output is total operating income.

Single Factor Anova: This test was used to check difference between the efficiency and difference between the foreign inflows of the firms.

Hypothesis Development:

The null hypotheses were designed as mentioned below:

H01 There is no significant difference in the efficiency of the company.

H02 There is no significant difference in the foreign inflows of the company

And the alternative hypotheses are:

H11: There is a significant difference in the efficiency of the company

H12: There is a significant difference in the foreign inflows of the company

Correlation: Using EXCEL Tool correlation test for all the companies was conducted to test the relationship between change in efficiency level of firms with change in foreign investment inflows.

Data Analysis and Interpretations

The data for conducting the technical efficiency test was obtained through company’s Annual reports. The collected data was then used for measuring the

efficiency using input oriented CRS model under DEAP Program. The year wise, evaluation of technical efficiency for 6 firms is done. The results of the Technical Efficiency Score of all the firms every year is recorded to check the performance of selective automobile firms in achieving the better productivity.

The following table represents the summary of results arrived by above process for the last 10 years.

From the above table it is evident that Bajaj Auto

Table 1: Technical efficiency of Automobile companies

Firm	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1. Ashoka Leyland	0.275	0.294	1	1	0.359	0.349	0.467	0.527	0.598	0.586
2. BAJAJ Auto	1	1	1	1	1	1	1	1	1	1
3. Hero moto corp	0.889	1	0.911	1	0.905	0.964	0.968	0.855	0.922	0.861
4.Mothersons Sumi Systems Ltd	0.815	1	0.302	0.271	0.286	0.293	0.340	0.313	0.220	0.203
5.TATA Motors	1	1	0.419	0.475	0.508	0.462	0.499	0.572	0.545	0.613
6.TVS Motors	0.479	0.452	0.486	0.497	0.543	0.585	0.687	0.662	0.075	0.715

Source: Author’s compilation of DEA results.

has set the benchmark for efficiency among the six automobile firms. Hero moto corp has been maintaining a considerably better level of efficiency for ten years. TVS motors and Ashoka Leyland have seen consistent improvement in managing their resources and increasing the efficiency of the firm. TATA motors was efficient for the first two years after which the firm’s efficiency reduced and the firm started to rise again year on year.

Association between efficiency and Foreign inflows:

As discussed earlier in the theoretical framework, one of the motive for attracting FDI in host country is the efficiency seeking FDI. The FDI inflows in the

selective Automobile firms is taken from the financial reports of the firm. In the present study the foreign capital of the firm is taken from the respective firms shareholding pattern. The Foreign investment in to these firms include – Foreign institutional investors/ Foreign nationals, Foreign Portfolio investors, Non Resident Indians (NRIs), Investments in ADRs and GDRs.

In order to check the association between the efficiency and Foreign inflows, the ANOVA test is being conducted for both Efficiency and FDI inflows. The test to measure differences in efficiency of companies and difference in the foreign inflows of all the six companies is done using Single factor Anova.

Table 2 ANOVA for Technical Efficiency of the firm

Table 2 ANOVA for Technical Efficiency of the firm					ANOVA						
Groups	Count	Sum	Average	Variance	Source of Variation	SS	df	MS	F	P-value	F crit
1. Ashoka Leyland	10	5.455	0.5455	0.070429	Between Groups	2.880221	5	0.576044	15.32002	2.32126E ⁰⁹	2.38607
2. BAJAJ Auto	10	10	1	0	Within Groups	2.03044	54	0.037601			
3. Hero moto corp	10	9.275	0.9275	0.002828	Total	4.910661	59				
4.Mothersons Sumi Systems Ltd	10	4.043	0.4043	0.073901							
5.TATA Motors	10	6.093	0.6093	0.045468							
6.TVS Motors	10	5.181	0.5181	0.032979							

The P value of 2.32126E-09 states, that the null hypothesis to be rejected. Therefore, it can be stated

that there is a significant difference between the Technical efficiencies of the firm.

Table 3 ANOVA for Foreign investments of the firm

Groups	Count	Sum	Average	Variance
1. Ashoka Leyland	10	4646902239	464690223.9	5.61506E+16
2. BAJAJ Auto	10	405163915	40516391.5	1.79746E+14
3. Hero moto corp	10	739547780	73954778	1.8317E+14
4.Mothersons Sumi Systems Ltd	10	1097431675	109743167.5	9.06376E+15
5.TATA Motors	10	8608548817	860854881.7	2.41452E+17
6.TVS Motors	10	338165187	33816518.7	8.80819E+14

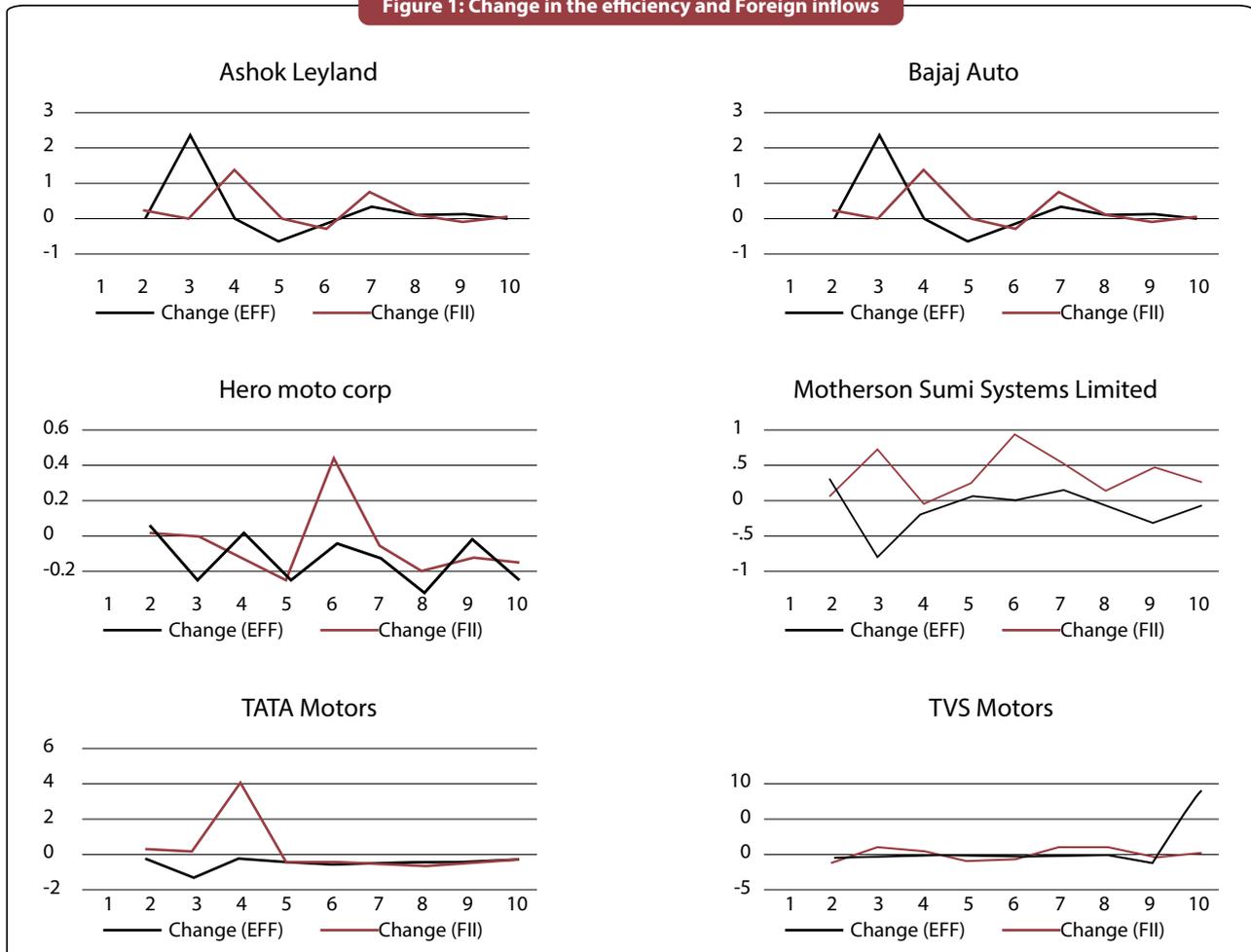
ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	5.59E+18	5	1.11871E+18	21.799	7.05E-12	2.38607
Within Groups	2.77E+18	54	5.13184E+16			
Total	8.36E+18	59				

From the results obtained above it is clear that the P value for testing foreign inflows is 7.05E-12, this again states that there is a difference in the foreign inflows earned by the companies every year on year. Hence in both the above cases, the null hypothesis must be rejected, and alternative hypothesis can be accepted.

Further to understand the change in the efficiency levels of each company with their foreign investment inflows, the following graphs were plotted. These diagrams represent the change in the efficiency and foreign investment inflows of the selected six automobile companies for the last six years.

Figure 1: Change in the efficiency and Foreign inflows



Source: Authors compilation

Correlation:

Correlation test is conducted individually to all the six firms, to test the relationship between change in the efficiency of the firm with the change in the foreign inflows of the firm.

Table : 4 Correlation test is conducted individually to all the six firm

year	Ashoka Leyland		BAJAJ Auto		Hero moto corp		Mothersons Sumi Systems Ltd		TATA Motors		TVS Motors	
	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change	Change
	EFF	in FII	EFF	in FII	EFF	in FII	EFF	in FII	EFF	in FII	EFF	in FII
2008-09												
2009-10	0.0691	0.2341	0.0000	-0.0386	0.1249	0.1082	0.2270	0.0253	0.0000	0.4930	-0.0564	-0.5867
2010-11	2.4014	-0.0096	0.0000	0.2733	-0.0890	0.0942	-0.6980	0.6392	-0.5810	0.3475	0.0752	1.2632
2011-12	0.0000	1.4347	0.0000	0.8044	0.0977	0.0183	-0.1026	0.0000	0.1337	3.9847	0.0226	0.7132
2012-13	-0.6410	0.0448	0.0000	0.0221	-0.0950	-0.0835	0.0554	0.2255	0.0695	0.0661	0.0926	-0.4081
2013-14	-0.0279	-0.2528	0.0000	0.0993	0.0652	0.4079	0.0245	0.9176	-0.0906	0.0537	0.0773	-0.2644
2014-15	0.3381	0.7709	0.0000	0.0246	0.0041	0.0461	0.1604	0.6690	0.0801	-0.0259	0.1744	1.5829
2015-16	0.1285	0.1694	0.0000	-0.1931	-0.1167	-0.0569	-0.0794	0.0873	0.1463	-0.2164	-0.0364	1.5323
2016-17	0.1347	-0.0428	0.0000	-0.2162	0.0784	0.0057	-0.2971	0.4675	-0.0472	-0.0909	-0.8867	-0.0109
2017-18	-0.0201	0.0669	0.0000	0.4787	-0.0662	-0.0174	-0.0773	0.1884	0.1248	0.0418	8.5333	0.2815

TO check if any relationship exists between the change in the efficiency with the change in the foreign capital flows, the values are taken in the percentage change as year on year basis.

The results of the correlation have been summarised in the following table.

Table 4: Correlation component of Automobile companies

Groups	correlation
Ashok Leyland	-0.112
BAJAJ	0.000
Hero moto corp	0.454
Motherson Sumi Systems Limited	-0.244
TATA	0.164
TVS	-0.047

The above results state that only Hero moto corp has got correlation coefficient as 0.454. This company's foreign inflows are having a positive relationship with efficiency of the firm. The firm has been able to attract increased foreign inflows by improving its technical efficiency. After Hero moto corp it is the Tata Motors who has been having some positive relationship with foreign inflows is about 0.164.

The negative correlation coefficient states that the increase in the efficiency of the firm has an inverse relationship with attracting foreign investments. In the present study Ashok Leyland, Motherson Sumi and TVS motors have Negative correlation with

foreign inflows in their companies. Bajaj Auto since it is a benchmark firm for technical efficiency due to which we cannot arrive at correlation values.

Scope for further research:

The method used for computing technical efficiency of the firm was two input one output based, input oriented constant returns to scale. This model is the basic model. Further the efficiency of the firm can even be studied by adopting to other established methods. The study can also be conducted for a large group of companies. Considering a sample for longer time period, to assess if we can identify the significant role of efficiency in attracting Foreign inflows in India.

Discussion and Conclusion

Indian economy being the fastest growing economy and having initiated significant new initiatives and structural reforms, has been successful in attracting FDI(Shinde & Dubey, 2011). The largest portion of foreign investments flow to Indian Automobile sector. Efficiency is the method adopted to evaluate the performance of the firms, from the available secondary sources of data. This study was conducted to evaluate the relationship between the efficiency of the firms and the foreign investments. It was found from the study that the efficiency of the firms and foreign inflows were different across the period of the study, stating that there were changes in the performance of the firms and also foreign investments of the firm. Further it was also observed that Hero moto corp was the firm among the six,

which proved the hypothesis of relationship between efficiency and foreign investment inflows. Further the studies can be conducted to a larger sample size and test the role of efficiency seeking Foreign inflows in automobile sector.

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- Appendix Tables Appendix Table 19 : Foreign Direct Investment Flows To India : (2012). 213.
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Consumption Patterns and Customer Expectations towards Marine Fishery Products in Coastal Andhra Pradesh

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Abstract

Marine fisheries sector forms an important sector for the Indian economy. It is not only contributing to the GDP of the country but also providing livelihood and providing food security for millions of Indians. In India, there are nine maritime states, two union territories and 1537 notified fish landing centres. According to the Census of 2010 by CM-FRI, the total fishermen population was about 4 millions consisting of 0.86 million families. All of these fishermen are depending on the profession of catching and selling the marine fish. If these people are able to know the consumption patterns of the fish along with the customer expectations towards marine fishery products then it will be easy for the fishermen to offer their marine product mix to the market according to the customer expectations. The primary aim of the research study is to empirically analyse the consumption patterns and customer expectations towards marine fishery products in coastal Andhra Pradesh. The study was conducted in the coastal area of the Andhra Pradesh state to read the expectations of the customers towards marine fishery products. The study found that the fishermen should process the fish according to the expectations of individual customer and organisational customer. It is strongly advised that the fishermen should decide first which type of customer they are selling fish, and then they should perform the value added activities as different type of customers are having different types of expectations.

Keywords: Consumption patterns, Customer expectations, Factor analysis, Consumer behavior, Fish products and Marine fishery

Introduction

In this exploratory research, an effort has been done to comprehend the expectations of the individual customers and organisational customers towards fish products. The objective of this analysis is to identify the value addition operations expected by individual and organisational customers and convey the same to the fishermen community so that the fishermen perform the same value added operations to satisfy the customer. Individual fish customers refer to consumer households for self consumption. Organisational fish customers refer to restaurants, hotels, dhabas, parcel counters/curry points etc.

The definition of value will be different from one person to another person. The value will be perceived by the fishermen (producer) differently when compare to the definition of value by the customer. The fishermen will perform the value chain activities according their perception of value. But the customer in the market may be expecting different thing from the fish products. In order to diminish this gap between fishermen perceptions and customer expectations, this particular analysis is done to find out the most expected fish product value added attributes by the customer which will be motivating the customers to purchase. If the fishermen are

aware of what exactly the customer expectations are, then the fishermen may accordingly perform the value added operations. The concept of value chain analysis can also be applied to the fishery sector. Knowingly or unknowingly, there are so many fishermen involved in marine fishery value chain. In this study an attempt has been made to determine whether the customers prefer value additions to fish or not, if they prefer value added fish what type of value addition operations they are expecting to the marine fish.

Marine fisheries sector forms an important sector for the Indian economy. It is not only contributing to the GDP of the country but also providing livelihood and providing food security for millions of Indians. In India, there are nine maritime states, two union territories and 1537 notified fish landing centres. According to the Census of 2010 by CMFRI, the total fishermen population was about 4 millions consisting of 0.86 million families. All of these fishermen are depending on the profession of catching and selling the marine fish. If these people are able to know the consumption patterns of the fish along with the customer expectations towards marine fishery products then it will be easy for the fishermen to offer their marine product mix to the market according to the customer expectations.

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Literature review

According to IMARC Report (2020), it was found that the estimated worth of Indian fish market was INR 1,233 billion in 2019 and the driver of Indian fish market were increase in per capita income, organised food retail, health awareness and growth in exporting. Shashikanth and Somashekar (2020) revealed in their research that the per capita consumption of fish was found to be 25.9 kg per year in developed countries and 9.3 kg per year in developing countries; it has been found that the consumption of fish is more in developed countries than developing countries where the global per capita consumption of fish is found to be 19 kg per year. In India, the consumption of fish was increased from 8.8 kg per year in 1988 to 9 kg per year in 2000, 10 kg per year in 2020. In the same research, it was found that the fish consumers in India are consuming fish on daily basis (6.87%), fish consumption once in a week (30.39%), fish consumption once in a fortnight (29.42%), once in a month (18.62%) and occasional fish consumption (14.70%). Shyam (2020) found in their study that the average household consumption of fish was found to be 9.34 kg across low value fish 6.49 kg and high value fish 2.85 kg, and the expenditure was estimated at Rs.982.81 per kg. The restraining factors of fish consumption were found to be unavailability of preferred fishes, lack of quality fish, high prices, lack of fresh fish availability, accessibility to purchase sources, seasonality etc. Domingo et al., (2007) observed in their study that people consider fish to be a balanced and healthy diet to get the high nutrition values like vitamins and proteins. Hu et al., (2002) found out in their study that the fish consumers perceived that fish consumption will reduce the risk of coronary heart disease. Lund (2013) identified in their study that people understanding is that the consumption of fish will give the health benefits like increased cognitive development and weight control. Skytte and Blunch (2001) identified in their study that the aspects like price and food quality were the major concerns for food consumers. Schwedler and Johnson (2000) observed in their study that the fish consumers pay attention was towards the fish attributes like appropriate farms planning and management, healthy fish products, well-being of farmed fishes etc. Verbeke et al., (2007) noticed that the fish consumers look forward for the attributes like convenience, taste, brand knowledge and price while purchasing fish products. Rajani (2010) analysed that the consumers were influenced by the attributes of fish products like natural, fresh, nutritious, knowledge, price and availability during selection of fish and its purchase.

Objectives of the study

The primary aim of this empirical research is to analyse the consumption patterns and customer expectations towards marine fishery products in coastal Andhra Pradesh. The study was conducted in the coastal area of the state of Andhra Pradesh to read the expectations of the customers towards marine fishery products. The study also focuses light on demographics of the customers consuming marine fish along with their consumption patterns in the study area.

Methodology

Respondents: Individual Customers and Organizational Customers of fish.

Sample Size: 500 Individual Customers and 50 Organizational Customers.

Sampling Method: Purposive Sampling.

Study Area: Coastal Andhra Pradesh [9 cities in 9 distinct head quarters]

Data Capture Method: Field Survey.

Data Capture Instrument: Structured Questionnaire.

The people who consume fish they are considered as respondents for this research study. The selection of the study area is on the basis of importance of the marine fish landing centers/villages and fish consumption centers cities/district head quarters among all nine coastal districts of Andhra Pradesh i.e. Nellore, Prakasam, Guntur, Krishna, West Godavari, East Godavari, Visakhapatnam, Vizianagaram and Srikakulam.

In fish market there are two types of customers can be found. They are individual customers and organisational customers (Hotels and Restaurants). This research paper is divided into two parts.

Analysis of Individual Customer Expectations.

Analysis of Organisational Customer Expectations.

Two structured questionnaires have been designed separately to elicit the expectations of individual customers as well as organisational customers depending on the objective of the analysis. These two questionnaires measure the customer expectations towards fish on certain parameters on a five-point-likert-scale which were identified from the field observations and interviews.

The cronbach alpha value computed for both the questionnaires in order to determine the reliability of data. The α value is found to be 0.753 for individual customer questionnaire data and α is 0.714 for organisational customer questionnaire data where the threshold value is 0.70 : (Bernardi, 1994).

Factor analysis statistical tool was executed on the primary data collected from both individual and organisational customers in form of expectations towards fish. KMO (Kaiser-Meyer-Olkin) measure and Bartlett's Test of Sphericity was executed on the data in order to determine the appropriateness of application of factor analysis. KMO test must be significant and Bartlett's Test of Sphericity coefficient must be more than 0.05 is desirable: (Akansha Anchaliya et al., 2012).

Findings and Discussions

Analysis of individual customer expectations towards fish products

In this section analysis of individual customer expectations towards fish products are analysed. The questionnaire of individual customer expectations is designed to record the customer expectations towards 20 attributes of fish products attributes and also it reads a brief demographic profile of individual customer and along with their purchase behaviour. The sample size for this analysis, as mentioned in the first chapter, is 500 (0.010% of population living in district head quarters cities of coastal districts of Andhra Pradesh). The respondents are selected from fish markets in district head quarters city of each coastal district.

Demographic profile of individual fish customers in the study area:

The Demographic characteristics of the respondents (individual customers) were analysed which help the fishermen and fish marketers to design marketing polices and strategies like 4P strategy, STP strategy etc.

Table 1: Demographic Profile of Customers

Variable	Categories of variable	Frequency	%
Gender	Male	275	55.00%
	Female	225	45.00%
Age	13 - 19 years (teenagers)	34	6.67%
	20 - 30 years (young-age)	208	41.67%
	31 - 40 years (early-middle-age)	158	31.67%
	41 - 50 years (late-middle-age)	75	15.00%
	above 50 years (old-age)	25	5.00%
Occupation	Unemployed / Students	50	10.00%
	Employed	358	71.67%
	Business people	92	18.33%
Education	Primary Education	8	1.67%
	Secondary Education	27	5.33%
	Higher Secondary / Diploma / ITI	97	19.33%
	Graduation (UG)	200	40.00%
	Post Graduation (PG)	147	29.33%
	Higher than PG	21	4.33%

Income Per month	< Rs.15,000/-	125	25.00%
	Rs.15,000/- to Rs.30,000/-	225	45.00%
	Rs.30,000/- to Rs.50,000/-	85	17.00%
	> Rs.50,000/-	65	13.00%
Size of Family	Two	72	14.33%
	Three	137	27.33%
	Four	250	50.00%
	Five	33	6.67%
	Six	8	1.67%

Source: field work

The demographic analysis of individual fish consumers are presented in the Table 1. The data related to the demographic profile of the customers are gathered from the field survey through a structured questionnaire.

- ◆ It was found from the primary data collected from the respondents, 55% (275 respondents) are male and 45% (225 respondents) are female.
- ◆ In the Age group analysis, 34 (6.67 percent) customers are teenagers (13 – 19 years), 208 (41.67 percent) are of young age group (20 – 30 years), 158 (31.67 percent) are of early middle age group (31 – 40 years), 75 (15 percent) are of late middle age group (41 – 50 years) and 25 (5 percent) customers are of old age group (above 50 years).
- ◆ In the occupation analysis of fish consumers, unemployed/students are 50 (10 percent) consumers, employed 358 (71.67 percent) and business people 92 (18.33 percent).
- ◆ In the educational analysis of fish consumers, 8 (1.67 percent) consumers has completed their primary education, 27 (5.33 percent) had secondary education, 97 (19.33 percent) had completed their higher secondary education, 200 (40 percent) were graduated, 147 (29.33 percent) had post graduation qualification and 21 (4.33 percent) had finished their higher post graduation studies.
- ◆ In the income analysis of fish consumers, 125 (25 percent) consumers' income per month less than or equal to Rs.15,000/-, 225 (45 percent) consumers' income Rs.15,000/- to Rs.30,000/-, 85 (17 percent) consumers' income Rs.30,000/- to Rs.50,000/-, 65 (13 percent) consumers' income more than Rs.50,000/-.
- ◆ In the size of family analysis, 72 (14.33%) consumers' family size is two, 137 (27.33%) consumers' family size is three, 250 (50%) consumers' family size is four, 33 (6.67 percent) consumer's family size is five and 8 (1.67 percent) of consumers are having family size six.

Purchase Behaviour towards the product fish:

In the analysis of purchase behaviour of the fish

consumers, a series of variables pertaining to fish consumer purchase behaviour are identified and analysed in the Table 2.

Table 2: Consumption Behaviour of fish consumers

Variable	Categories of variable	No.	%
Frequency of purchase of Fish	Daily	30	6.00%
	Weekly	183	36.67%
	Biweekly	78	15.67%
	Monthly	97	19.33%
	Bimonthly	37	7.33%
	as per requirement	75	15.00%
Most preferred day of Eating fish	Sunday	225	45.00%
	Tuesday	98	19.67%
	Friday	34	6.67%
	as per requirement	143	28.67%
amount spent per month	less than Rs.500/-	132	26.33%
	between Rs.500/- to Rs.1000/-	212	42.33%
	between Rs.1000/- to Rs.2000/-	123	24.67%
	more than Rs.2000/-	33	6.67%
distance from home to outlet	less than 1 k.m.	217	43.33%
	between 1 k.m. and 3 k.m.	167	33.33%
	between 3 k.m. and 5 k.m.	56	11.33%
	between 5 k.m. and 10 k.m.	40	8.00%
	more than 10 k.m.	20	4.00%
Family Life Cycle Stage	Young Couple with no children	67	13.33%
	Couples with children	250	50.00%
	Couple-with-working-children	150	30.00%
	Old-Couple-working-children -with-kids	26	5.33%
	Old-Couple-staying-away -from-children	7	1.33%

Source: field work

The purchase behaviour of the individual fish consumers is presented in the Table 2.

- ◆ The frequency of purchase of fish is observed as daily for 30 (6 percent) customers, weekly for 183 (36.67 percent), biweekly for 78 (15.67 percent), monthly for 97 (19.33 percent), bimonthly for 37 (7.33 percent) customers and 75 (15 percent) customers are consuming fish as and when they require.
- ◆ Most preferred day for fish purchase is analysed as Sunday for 225 (45 percent) customers, Tuesday for 98 (19.67 percent), Friday for 34 (6.67 percent) and 143 (28.67 percent) of the consumers' preferred time of fish consumption is as and when the customers require.
- ◆ The amount spent per month for purchase of fish is less than Rs.500/- for 132 (26.33 percent) customers, 212 (42.33 percent) of the consumers are spending Rs.500/- to Rs.1000/-, 123 (24.67 percent) are spending Rs.1000/- to Rs.2000/- and 33 (6.67

percent) customers are spending an amount more than Rs.2000/- per month.

- ◆ The distance between fish outlet and consumer point is analysed, 217 (43.33 percent) consumers willing to purchase fish within less than 1 k.m. radius, 167 (33.33 percent) consumers willing to purchase fish from 1 k.m. and 3 k.m., 56 (11.33 percent) consumers are willing to purchase fish within 3 k.m. and 5 k.m., 40 (8 percent) consumer are willing to purchase fish within 5 k.m. to 10 k.m. and only 20 (4 percent) consumers are willing to purchase fish more than 10 k.m.
- ◆ In the customer-life-cycle-stages analysis, young-couple-without-children are 67 (13.33 percent), couple-with-children are 250 (50 percent), couple-with-working-children are 150 (30 percent), old-couple-with-working-children with kids are 26 (5.33 percent), old-couple-staying-away-from-children are 7 (1.33 percent).

Performing Factor Analysis on expectations of the individual customers towards fish products

The multi-variate statistical tool factor analysis was applied on the data of consumer expectations towards fish products. The consumer expectations are recorded through the data capture instrument (structured questionnaire) on a five-point-likert-scale ([5] Highly-Expected, [4] Expected, [3] Slightly-Expected, [2] Unexpected, [1] Highly- Unexpected) on twenty variables. In order to proceed for performing factor analysis, the data reliability test was performed. The Cronbach's Alpha value is found to be 0.753 which means the data of customer expectations towards fish is 75.3% reliable.

Reliability of Data: Kaiser Meyer Olkin (KMO) and Bartlett's Test for Individual Customer Expectations

Table 3: KMO and Bartlett's Test for Individual Customer Expectations

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.842
	Approx. Chi-Square	6421.415
Bartlett's Test of Sphericity	Df	190
	Sig.	.000

Source: Output of Factor Analysis

The Table 3 shows the results of Bartlett's Test and Kaiser Meyer Olkin (KMO) test which determines the appropriateness of applying factor analysis on the customer expectations data. The KMO value is found to be 0.842 which is more than the threshold value of 0.5 (Hair et al., 1998) and Bartlett's Test of Sphericity ($X^2 = 6421.415$) is found to be significant ($p < .001$, df 190).

Finally it can be noticed that the data of consumer expectations towards fish products is appropriate for factor analysis. The factor analysis was applied using principle component extraction method with varimax rotation.

Factors – Individual Customer Expectations towards fish product

Table 4: Factors – Individual Customer Expectations

Factor	Eigen Values	% Total variance	Cumulative %
Quality	5.415	26.15	26.15
Retail Outlet	2.845	14.89	41.04
Decision Making Advice	2.148	11.12	52.16
Type of Fish	1.547	8.56	60.72
Price	1.324	6.45	67.17
Type of Catch	1.105	5.02	72.19

Source: Output of Factor Analysis

After executing factor analysis, the twenty (fish product attributes) variables were decreased to six factors, which explained 72.19 percent of cumulative variance which is showing that the variance of actual values was well captured by six factors as shown in Table 4. The six factors are conceptually named as Quality, Retail outlet, Decision Making Advice, Types of fish, Price and Type of Catch. The factor scores of customer expectations are presented in the Table 5.

The factor scores matrix of customer expectations towards fish and it’s associated variables in all the six factors and their relative factor scores as presented in Table 5. The factor scores in the matrix represent the priority of customer expectations towards fish.

- ◆ The first generated factor is named as QUALITY with an Eigen value of 5.415, variance of 26.15 percent and four associated variables. The variables are Quality fish (factor score 0.87), Freshness (0.81), Cleanliness (0.70) and Safety and security (0.50). Hence it can be concluded that the most expected

Table 5: Factor Scores Matrix – Individual Customer Expectations

S.No	Product Attributes	Quality	Retail	Decision Outlet	Type Making Advice	Price of fish	Type of Catch
1	Quality Fish	0.87					
2	Freshness	0.81					
3	Cleanliness	0.70					
4	Safety and Security	0.50					
5	Retail outlet ambience		0.81				
6	Nearer to home		0.74				
7	Appearance of fish in outlet		0.65				
8	Credit facility		0.53				
9	Species Variety			0.80			
10	Retailer Advice			0.71			
11	Family Members Advice			0.55			
12	Branded fish				0.80		
13	Frozen/Iced fish				0.60		
14	Chopped fish				0.51		
15	Reasonable price					0.81	
16	Value for money					0.70	
17	Date of Catch						0.79
18	Place of Catch						0.69

Source: Author’s compilation of DEA results.

fish product attributes by the customers are related to quality.

- ◆ The second generated factor is named as RETAIL OUTLET with an Eigen value of 2.845, variance of 14.89 percent and four associated variables. The variables are Retail outlet Ambience (0.81), Nearer to home (0.74), Appearance of fish outlet (0.65) and Credit Facility (0.53). The fish retail outlet which is

having these qualities is the second most expected attribute by the customer to purchase fish.

- ◆ The third generated factor is named as DECISION MAKING ADVICE with an Eigen value of 2.148, variance of 11.12 percent and three associated variables. The variables are Species Variety (0.80), Family members’ advice (0.71) and Retailer Advice (0.55). The customers are taking purchase decisions

basing on these attributes.

- ◆ The fourth generated factor is named as TYPE OF FISH with an Eigen value of 1.547, variance of 8.56 percent and three associated variables. The variables are Branded fish (0.80), Frozen/Iced fish (0.60) and Chopped fish (0.51). Hence it can be concluded that the customers are motivated by these types of fish in the market.
- ◆ The fifth generated factor is named as PRICE with an Eigen value of 1.324, variance of 6.45 percent and two associated variables. The variables are Reasonable price (0.81) and Value for Money (0.70). Therefore it can be concluded that the customers are expecting the prices of the fish to be reasonable and the fish product should deliver value for money to customers.
- ◆ The sixth generated factor is named as TYPE OF CATCH with an Eigen value of 1.105, variance of 5.02 percent and two associated variables. The variables are Date of Catch (0.79) and Place of Catch (0.69). The customers have certain expectations towards type of catch basing on which they are taking the purchase decisions.

Two variables, Frozen Boneless fish and Non-value added fish are eliminated while executing factor analysis that means the customers are not expecting Frozen Boneless fish (readily available boneless fish made by producer) and also not expecting Non-value added fish (fish without processing) from the market and customers will avoid such kind of products.

Analysis Of Organisational Customer Expectations Towards Fish Products

In this section, analysis of Organisational customer expectations are analysed towards fish products. The questionnaire of Organisational customer expectations is designed in such a way that it records the customer expectations towards fifteen fish product attributes. The sample size for this analysis, as mentioned in the first chapter, is 50 (10% of Individual Customers Sample). The respondents are hotels, restaurants, dhabas etc from district head quarters city of each coastal district.

Performing Factor Analysis on expectations of the organisational customers towards fish product

The multi-variate statistical tool factor analysis was applied on the data of organisational consumer expectations towards fish products. The consumer expectations are recorded through the data capture instrument (structured questionnaire) on a five-point-likert-scale ([5] Highly-Expected, [4] Expected,

Slightly-Expected, [2] Unexpected, [1] Highly-Unexpected) on twenty variables. In order to proceed for performing factor analysis, the data reliability test was performed. The Cronbach's Alpha value is found to be 0.714 which means the data of customer expectations towards fish is 71.4% reliable.

Reliability of Data: Kaiser Meyer Olkin (KMO) and Bartlett's Test for Organisational Customer Expectations

Table 6: KMO and Bartlett's Test for Organisational Customer Expectations

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.606
Approx. Chi-Square		227.153
Bartlett's Test of Sphericity	Df	91
	Sig.	.000

Source: Output of Factor Analysis

The Table 6 shows the results of Bartlett's Test and Kaiser Meyer Olkin (KMO) test which determines the appropriateness of applying factor analysis on the organisational customer expectations data. The KMO value is found to be 0.606 which is more than the threshold value of 0.5 (Hair et al., 1998) and Bartlett's Test of Sphericity ($X^2 = 227.153$) is found to be significant ($p < .001$, $df = 90$).

Finally it can be noticed that the data of organisational consumer expectations towards fish products is appropriate for factor analysis. The factor analysis was applied using principle component extraction method with varimax rotation.

Factors – Organisational Customer Expectations towards fish product

Table 7: Factors – Organisational Customer Expectations

Factor	Eigen Values	% Total variance	Cumulative %
Type of Processing	3.498	24.98	24.98
Quality	1.929	13.77	38.75
Type of Fish	1.903	13.59	52.34
Storage	1.260	8.99	61.33

Source: Output of Factor Analysis

After executing factor analysis, the fifteen (fish product attributes) variables were decreased to four factors, which explained 61.33 percent of cumulative variance which is showing that the variance of actual values was well captured by four factors as shown in Table 7. The six factors are conceptually named as Type of processing, Quality, Type of fish and Storage. The factor scores of customer expectations are presented in the Table 8.

Factor Scores Matrix – Organisational Customer Expectations

Table 8: Factor Scores Matrix – Organisational Customer Expectations

S.No	Attributes Processing	Type of Quality	Type of fish	Storage
1	Boneless fish	0.83		
2	Removal of Slime	0.82		
3	Chopped fish	0.81		
4	Deheaded fish	0.79		
5	Fish without fins	0.64		
6	Freshness	0.80		
7	Cleanliness	0.69		
8	Safety & Security	0.51		
9	Species		0.73	
10	Place of Catch		0.65	
11	Date of Catch		0.62	
12	Appearance of fish		0.60	
13	Quality of Storage			0.73
14	Storable & Non Perishable			0.66

Source: Author's compilation of DEA results.

The factor scores matrix of organisational customer expectations towards fish and its associated variables in all the four factors and their relative factor scores as represented in Table 8. The factor scores in the matrix represent the priority of organisational customer expectations towards fish.

- ◆ The first generated factor is named as TYPE OF PROCESSING with an Eigen value of 3.498, variance of 24.98 percent and five associated variables. The variables are Boneless fish (factor score 0.83), Removal of Slime (0.82), Chopped fish (0.81), Deheaded fish (0.79) and Fish without fins (0.64). Hence it can be concluded that the most expected fish product attributes by the organisational customers are related to types of processing.
- ◆ The second generated factor is named as QUALITY with an Eigen value of 1.929, variance of 13.77 percent and three associated variables. The variables are Freshness (0.80), Cleanliness (0.69) and Safety & Security (0.51). The quality of fish is the second most expected attribute by the organisational customer to purchase fish.
- ◆ The third generated factor is named as TYPE OF FISH with an Eigen value of 1.903, variance of 13.59 percent and four associated variables. The variables are Species (0.73), Place of catch (0.65), Date of catch (0.62) and Appearance of Fish (0.60). The customers are taking purchase decisions basing on these product attributes.
- ◆ The fourth generated is named as STORAGE with an Eigen value of 1.260, variance of 8.99 percent and two associated variables. The variables are Quality of

storage (0.73) and Storable & Non perishable (0.66). Hence it can be concluded that the customers are motivated by these types of fish in the market.

One variable, Non-value added fish is removed while executing factor analysis that means the organisational customers are not expecting Non-value added fish (fish without processing) from the market and customers will avoid such kind of products.

Suggestions and Conclusions

In this research an analysis has been made to analyse the individual and organisational customer expectations towards fish products. The analysis is carried out separately for individual customer expectations and organisational customer expectations. The objective of this analysis is to identify the value additions expected by the customers and convey the same to the fishermen community so that the fishermen perform the same value added operations to satisfy the customer.

From analysis of expectations of individual customers, it can be concluded that the most expected value additions are

- ◆ **Quality** (Quality Fish, Freshness, Cleanliness, Safety and Security).
- ◆ **Retail Outlet** (Retail outlet ambience, Nearer to home, Appearance of fish in outlet and Credit facility).
- ◆ **Decision Making Advice** (Species Variety, Retailer Advice and Family Members Advice).

- ◆ **Type of fish** (Branded fish, Frozen/Iced fish and Chopped fish).
- ◆ **Price** (Reasonable price and Value for price).
- ◆ **Type of Catch** (Date of Catch and Place of Catch).

From analysis of expectations of organisational customers, it can be concluded that the most expected value additions are

- ◆ **Type of processing** (Boneless fish, Removal of Slime, Chopped fish, Deheaded fish and Fish without fins).
- ◆ **Quality of Fish** (Freshness, Cleanliness and Safety & Security)
- ◆ **Type of Fish** (Species type, Place of Catch, Date of Catch and Appearance of fish)
- ◆ **Storage** (Quality of Storage, Storable and Non Perishable fish)

The fishermen should process the fish according to the expectations of individual customer and organisational customer. It is strongly advised that the fishermen should decide first which type of customer they are selling fish, and then they should perform the value added activities. Because it is identified from the study that individual customer expectations and organisational customer expectations are found to be different. Hence, if the fishermen are selling fish to individual customer, the value chain management operations should be different, otherwise, if the fishermen are selling fish to organisational customer, the value chain management operations should be different i.e. according to the expectations of target customers.

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India's Trade Dynamics and Revealed Comparative Advantage with the BRICS Nations

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Prof. Pallabi Mukherjee**

Abstract

In this study the trade dynamics of India with the other BRICS countries have been explored. The exports and imports including trade openness have been exhibited and to understand the growth in exports and imports compound annual growth rate is calculated. The results demonstrate that CAGR had impressively increased however in case of India and China, CAGR of Imports is more than CAGR of exports and in case of South Africa CAGR of exports is more than CAGR of imports. In case of Brazil both export and import are significantly high. Trade openness between India and other BRICS countries has increased. Trade Intensity is calculated and it is obtained that India has huge export intensity with Brazil and Import intensity with China. However with South Africa both export and import intensity is quite high. The study also represents trade complementarity of India with the other BRICS nations exhibiting the revealed comparative advantage (RCA) for certain set of products. Results demonstrate that India exports those commodities to particular BRICS countries in which it enjoys Revealed Comparative Advantage over a particular BRICS country. Results also establishes India exports items in which, it has a comparatively better RCA than a single BRICS country but however RCA remains lesser than one. In this context some commodities, which have both high RCA and high growth rate, are chemicals, consumer goods, metals etc. However, products having low RCA (yet improving RCA) have very high growth in exports for example Fuels which form an integral part of exported items from India to BRICS countries like China and South Africa

Keywords: International Trade, Trade Openness, Trade Complementarity, Trade Intensity, Growth

Introduction

The term BRIC was invented by Jim O'Neil, an economist of Goldman Sachs in 2001 (Wilson, Kelston, & Ahmed, 2010) to denote the developing forces which, alongside the United States, will reflect the five nations. BRIC countries began their dialog in 2006, which takes place at annual meetings of the Heads of State and Government since 2009. In 2011 the BRICS achieved its final configuration with South Africa entering the party, adding a nation from the African continent. BRICS is a community made up of the five big developing countries – Brazil, Russia, India, China and South Africa – which together account for around 42 per cent of the people, 23 per cent of GDP, 30 per cent of the globe and 18 per cent of world trade. Since the start of their dialog in 2006, these countries have tried to create the most inclusive foreign governance, one that will be more fitting for their national interests. For example, the restructuring of the International Monetary Fund quota scheme, which came to include Brazil, Russia, India, and China among the top ten largest shareholders for the first time, will accomplish this target. Over the course of its first decade, BRICS has developed sectorial cooperation in various

fields, such as science and technology, trade promotion, energy, health, education, innovation and transnational crime fighting. Today, sectorial collaboration, including more than 30 topic fields, offers major tangible benefits to the citizens of the 5 nations. BRICS are expected to cross the Gross Domestic Product of G6 countries by 2050 (Wilson & Purushothaman, 2003).

India's foreign relations are handled by the MEA (Ministry of External Affairs). India since two decades now has become one of the powerful nations in the world. India caters to second and third ranks in terms of armed forces expenditures in military activities and strong economic base in terms of purchasing power parity and nominal growth rates. India has become a nuclear power and has very strong input in global undertakings. India is a constituent of the BRICS and also chief part of the developing world. Being founding member of several international organizations, The Asian Development bank, The New Development Bank (NDB) set up by BRICS nations is a part of the top twenty countries in the world as well (G20). India almost has trade relations with all parts of the world and especially after 1991 trade liberalization wedged its momentum in the

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mighty nation. Everything has been written regarding the growth of emerging economies (EMEs) in the global south over the last decade. Their continued development and popularity as an investment destination has received considerable interest from academics and politics. India was at the forefront of much of the attention lavished on these EMEs as part of the BRICS (the trailblazing iteration of the EME phenomenon), and as the biggest democracy, too (Bhunia 2014).

The world is changing at a fast pace and to keep up with the same India is part of several organizations which of course includes the BRICS and the study of such countries together to establish several facets of economic altercations is necessary. A study comparing the BRICS nations in terms of their sustainable development scores and also affirms Russia and Brazil to top the list. However India and China top in terms of progress scores giving a huge hope of amendment in converting wealth into well-being so far (Mukherjee and Ahuja, 2017).

Literature Review

Sharma (2013) carried out an analytical study of bilateral exchange between India and Brazil using export and import indexes for the period 2001–2012. Results showed that India's export-intensity indices remained > 1 , while the import-intensity indices remained < 1 for most years, suggesting that India's imports into Brazil were found to be lower than anticipated, while India's exports to Brazil were found to be higher than world exports to Brazil. Bhattacharya and Bhattacharya (2007) observed that China's export rate with India was quite high, while its level of imports with India during 1995–2005 was very small, indicating that the Chinese economy exports considerably higher than that which the world exports to India. Chandran (2010) focused on India's foreign trade, particularly concerning the country's bilateral trade relations with other nations. He established the ASEAN Free Trade Agreement of India (IAFTA) and noted the frequency of cooperation between those nations and India. The analyst also examined complementarity of trade between these nations and India to define the competitive advantage that had been revealed. Batra, Amita, and Khan (2005) seek a detailed evaluation of the differences in historical comparative advantage trends for India and China on the global market. Research is timely because India has made significant attempts to liberalize its external exchange since 1991, contributing to the economic transition would have been the consequent rise in global pressures and technology transfer. Vamvakidis (1998) has tried to estimate the growth effect of neighboring countries' dimensions and accessibility, and found that neighboring countries with massive

open economies are experiencing faster growth. In 2001, Goldman Sachs coined the word BRICs (Wilson, Kelston, & Ahmed, 2010) to define, by 2050 (Wilson & Purushothaman, 2003), the four major developing countries of Brazil, Russia, India, and China which Goldman Sachs predicts would surpass the G6 (US, Japan, UK, Germany, France, and Italy) in terms of GDP (in US\$). The study set out a series of four key factors that would establish the conditions that the BRIC countries will require for the expected growth. Macro stability, structures, transparency, and schooling are all necessary factors (Wilson & Purushothaman,

Conceptual Framework:

The literature survey revealed that, the role of TQM in innovation and producing quality products with the least cost is significant in manufacturing organizations. Further, the review of literature confirmed that the relationship between TQM and organizational performance has been found positive and significant in manufacturing organizations. The literature survey also helped the researcher to identify four important elements of TQM and three indicators of organizational performance. Research variables are presented in Table 1 and Figure 1 presents the conceptual framework for the study.

Objectives of the Study

The primary objective of the study involves understanding the trade dynamics of India with other BRICS countries (Brazil, Russia, China and South Africa).

Methodology and Analysis

The research is carried out with the help of secondary data obtained from various data base resources available that includes the World Bank (World Integrated Trade Solutions, WB) website, the International Trade Centre (ITC) and numerous research papers. The data for general time series analysis in case of analyzing the trade dynamics is collected from 2001 to 2018 respectively. However, data collected to compare and study revealed comparative advantage is done from 1991 to 2018. Log-Lin regression model is used to define relative change in dependent variable due to absolute change in independent variable which also determines the semi elasticity of the dependent variable. Bar graphs, 4 quadrant matrix and tables are used in order to represent and compare data.

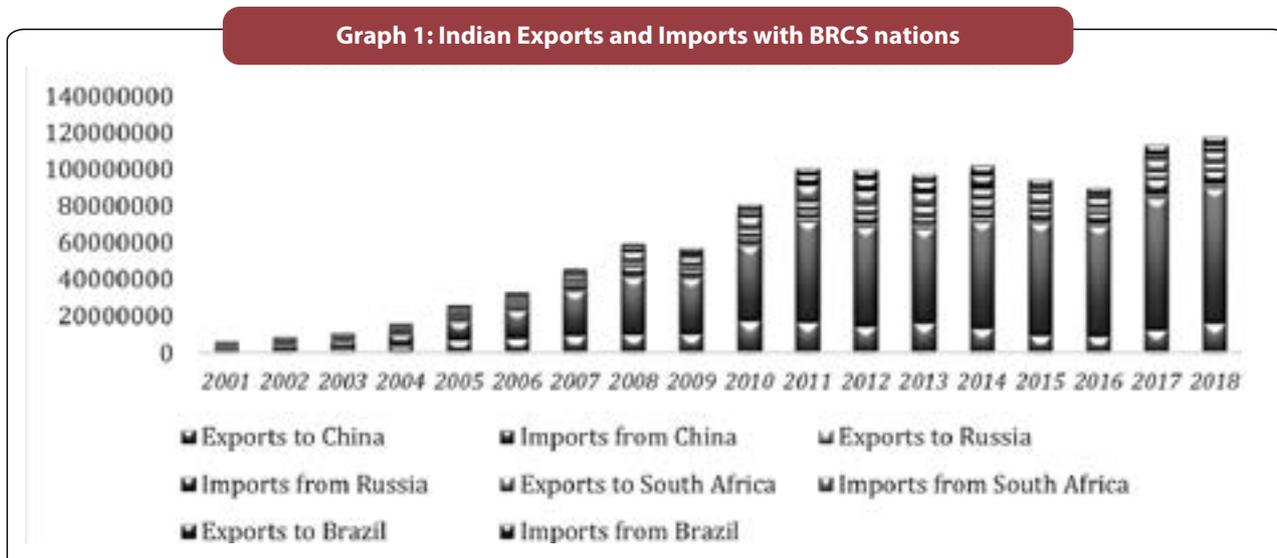
India's trade dynamics with BRICS Nations

The table below demonstrates exports of the Indian economy to the BRICS countries of the world namely China, Russia, South Africa and Brazil.

Indian exports in 2001 was 922542 thousand US

dollars to China which eventually augmented until 2011, 2014 and 2015, when the export value decreased majorly due to the various causes. Global slowdown in trade shrieked the demand for exports of all developing countries and India had to play a role as well. In case of Russia exports have fluctuated exhibiting decreases in the years of 2002 to 2004 and generally in 2014, 2015 as well which is close to same in the case of Indian exports to South Africa

and Brazil as well. However exports to South Africa and Brazil has also reduced in 2009 due to global financial crisis. Exports to Russia has increased from 839595 thousand USD to 2331420 thousand In case of UK from 2196629 USD in 2001 to 9780043 USD in 2018. India's exports to South Africa was 326689 USD in 2001 which eventually amplified to 4013636 thousand USD in 2018 respectively. India's exports

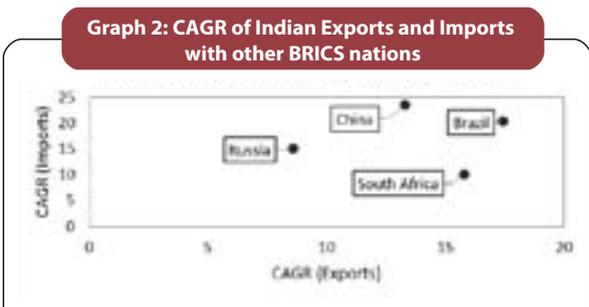


Source: Calculated by the Author (International Trade Centre, Data Centre for countries, 2018).

to Brazil similarly raised from 230498 to 3561877 thousand USD in 2018 correspondingly

Indian imprts in 2001 was 1827549 thousand US dollars to China which eventually augmented with considerable fluctuations and reached unto 73738222 USD. In case of Russia imports have fluctuated but however demonstrated increase from 478586 to 6847458 USD in 2018 respectively. Imports from South Africa and Brazil has also increased from 1403487 to 6610006 USD in 2018 and 270996 to 4617881 USD in 2018 correspondingly.

Imports from China has flaunted the highest degree from China through due course of time and amongst all the BRICS nations India imports the maximum from China and also the increase in imports have accelerated considerably.



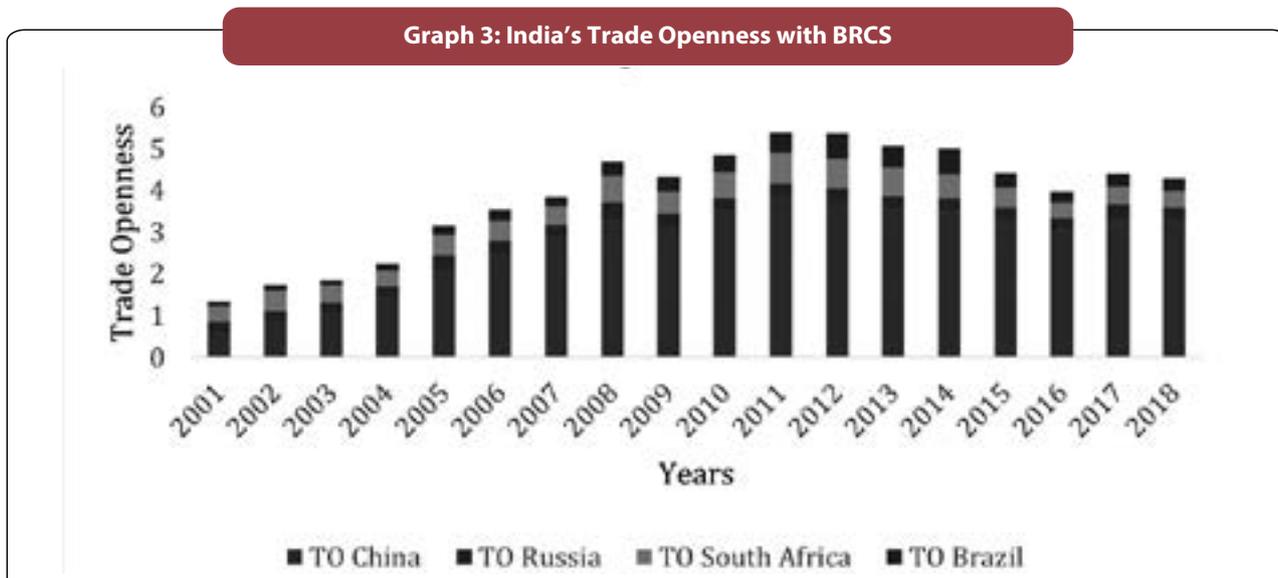
Source: Output of Factor Analysis

The compound annual growth rate of Indian exports in case China for eighteen years since 2001 is 13.297 percent. However in cases of Brazil, South Africa and Russia the rates accounted to 17.45, 15.83 and 8.604 percent respectively. The compound annual growth rate of Indian exports in case China for eighteen years since 2001 is 23.253 percent. However in cases of Brazil, South Africa and Russia the rates accounted to 20.376, 10.05 and 15.11 percent respectively.

Trade openness is calculated between India and BRICS and finally movements have been noticed. If country a is the country with which trade openness of India is calculated formulae used to calculate trade openness is as follows:

Here country a, is Brazil, Russia, China and South Africa and trade openness is calculated separately. Trade Openness with China has considerable increased and from 2001, which was, .5 has increased to 3.28 in 2018 respectively. Trade openness with South Africa, Brazil and Russia has also increased.

India mainly exports insecticides, fungicides, disinfectants etc. and is experiencing trade surplus only with Brazil since eighteen years altogether. However statistics from 2001 jointly portrayed a surplus demonstration but since 2015 India is experiencing a trade deficit with Brazil. India's export values out passed the import values from



Source: Calculated by the Author (International Trade Centre, Data Centre for countries, 2018).

$$\text{Trade Openness } I/a = \frac{\text{India's export to country } a + \text{India's import from country } a^*}{\text{GDP of India}} * 100$$

Brazil majorly due to decrease in Brazil's exports of petroleum and crude products which is one of the top most importing goods from the country by India. With rest of the BRICS nations India's value of imports are greater than exports. China is one of the biggest world exporters and hence imports from the country, of India have considerably increased ultimately leading to trade deficit. Among major import include plastic products, electrical products, nuclear reactors, organic chemicals etc. and India exports Ferro alloys, electrical equipment's, iron and steel, chemicals etc. to China. India imports valued products from Russia like defense (cartridges, air gun pellet etc.) products, diamonds, fertilizers etc. India also imports valued products like petroleum, gems, edible fruits and nuts, chemicals etc. from South Africa. However amongst BRICS nations India is the only country demonstrating trade imbalances exhibiting the highest trade deficit almost among all other BRICS nations. If China was excluded in this analysis of BRICS and India's trade, trade openness is quite less for with other nations insisting the fact that other BRICS countries (other than China) are not natural trade partners of India.

Intensity of Trade with other BRICS Countries

Countless statistical manifestations are obtainable to assess trade between two nations. One of the utmost prevalent approaches is the trade intensity index (Brown 1949; Kojima 1964). The index emerges in two forms, the export intensity index (XII) and import intensity index (MII). They are demarcated as follows:

$$\text{Equation I: } XII_a = (x_{ab} / X_{aw}) / \{M_{bw} / (M_w - M_{aw})\}$$

$$\text{Equation II: } MII_a = (m_{ab} / M_{aw}) / \{X_{bw} / (X_w - X_{aw})\}$$

Where XII_a is the country a 's export intensity index, MII_a the country a 's import intensity index, x_{ab} the country a 's exports to country b , X_{aw} the country a 's total exports to the world, M_{bw} the country b 's total imports from the world, M_w the world total imports, M_{aw} the country a 's total imports from the world, m_{ab} the country a 's imports from country b , X_{bw} the country b 's total exports to the world, X_w the world total exports, X_{aw} country a 's total export to the world.

Export and import intensity indicators reveal the ratio of the portion of country i 's trade with country j relative to the share of the world with country j . An index of greater (less) than unity has been inferred as a symptom of larger (smaller) than predictable trade flow between two parties.

Above table demonstrates export and import intensity of India with selected developing countries of the world like China, Russia and South Africa. The export Intensity of India to China has decreased in due course of time and has untapped potential. However import intensity of India from China has increased is more than unity. India should export more to China and import less. India has decreased export intensity to Russia and the import intensity has potential unexplored and unexploited. Both export and import intensity of India with South Africa is definitely significant and considerably more than unity. Nevertheless export and import intensity of India with Brazil is considerably very high respectively. India out of all BRCS nations enjoys trade surplus with

Table 1: Export and Import Intensity Index of India with BRICS Countries

Year	China		Russia		South Africa		Brazil	
	EII	III	EII	III	EII	III	EII	III
2001	0.539	0.825	2.854	0.575	1.817	6.481	85.492	0.558
2002	0.678	0.893	2.088	0.602	2.343	9.392	109.189	0.623
2003	0.799	0.846	1.561	0.602	1.746	6.306	88.215	0.438
2004	0.894	0.93	1.023	0.61	2.293	4.057	99.291	0.625
2005	1.135	0.97	0.746	0.613	2.661	4.152	137.533	0.542
2006	0.986	1.072	0.612	0.419	3.049	3.165	173.621	0.460
2007	0.944	1.261	0.44	0.477	2.536	3.111	189.096	0.342
2008	0.785	1.104	0.36	0.476	2.495	3.753	236.960	0.293
2009	0.721	1.164	0.394	0.52	2.147	4.271	76.522	0.865
2010	0.848	1.111	0.413	0.384	2.983	3.555	109.654	0.678
2011	0.568	1.125	0.367	0.302	2.491	3.327	166.692	0.562
2012	0.504	0.979	0.422	0.325	2.969	3.011	227.144	0.823
2013	0.461	0.93	0.42	0.288	3.042	3.077	195.165	0.630
2014	0.398	1.005	0.449	0.342	3.33	2.616	192.773	0.995
2015	0.348	1.119	0.538	0.544	2.722	3.229	76.927	0.888
2016	0.338	1.263	0.6	0.734	2.614	3.009	74.481	0.855
2017	0.397	1.236	0.55	0.864	2.878	3.029	95.639	0.910
2018	0.456	1.104	0.581	0.569	2.548	2.615	79.829	0.719

Brazil, which is evident (Export Intensity is more than Import Intensity).

Trade Complementarity Index

The definition of a competitive advantage applies to a country's capacity to generate a good / service not just with greater efficiency, as Ricardo originally suggested, but even better commodity difference than certain countries in a defined trading region (Lafay, 1987). One of the central concepts of trade economics is that of "comparative advantage."

First defined by David Ricardo, the idea claims that countries are better off because they are skilled in goods that they can produce comparatively more competitive – with lower cost of production – than others. When this occurs, then the idea goes, global welfare can expand.

Revealed Comparative Advantage Index illustrates how reasonable is a product in nations export related to the goods share in world trade. A commodity with high RCA is competitive and can be exported to countries with low RCA. Since Balassa's pioneering

Table 2: Comprehensive Demonstration of Analysis of Trade Between India and BRICS

Country	Type	Trade Statu	Trade Openness	CAGR Export	CAGR Import	Status of Trade Intensity (Export) in 2018	Status of Trade Intensity (Import) in 2018	Remarks
China	BRICS	Deficit	Increase	13.9	23.5	Lesser than Unity	Greater than Unity	Imports more exploited than exports
Russia	BRICS	Deficit	Increase	8.6	15.11	Lesser than Unity	Lesser than Unity	Exports and imports both under exploited
South Africa	BRICS	Deficit	Increase	15.8	10.05	Greater than Unity	Greater than Unity	Exports and imports both exploited
Brazil	BRICS	Surplus	Increase	17.4	20.3	Greater than Unity	Lesser than Unity	Export exploited more than imports

Table 3: Mean RCA (Reveled Comparative Advantage) of all BRICS Countries from Highest to Lowest

Brazil Mean RCA of Goods		Russia Mean RCA of Goods		India Mean RCA of Goods		China Mean RCA of Goods		South Africa Mean RCA of Goods	
Minerals	9.50	Fuels	4.62	Stone and Glass	5.33	Footwear	5.33	Stone and Glass	7.60
Food Products	4.17	Raw materials	2.97	Minerals	3.81	Hides and Skins	3.68	Minerals	6.95
Vegetable	3.98	Metals	2.09	Textiles and Clothing	3.67	Textiles and Clothing	2.78	Intermediate goods	2.07
Animal	2.55	Wood	1.28	Hides and Skins	3.46	Miscellaneous	1.57	Raw materials	2.02
Raw materials	2.50	Intermediate goods	1.24	Vegetable	2.26	Consumer goods	1.53	Metals	1.89
Footwear	2.18	Stone and Glass	1.12	Intermediate Goods	1.76	Mach and Elec	1.47	Vegetable	1.67
Wood	1.99	Minerals	0.96	Footwear	1.68	Capital goods	1.12	Food Products	1.20
Hides and Skins	1.70	Animal	0.95	Animal	1.43	Metals	0.86	Wood	0.96
Metals	1.49	Consumer goods	0.80	Consumer goods	1.26	Plastic or Rubber	0.75	Fuels	0.83
Intermediate goods	1.48	Chemicals	0.68	Chemicals	1.19	Stone and Glass	0.66	Miscellaneous	0.78
Transportation	0.83	Vegetable	0.46	Metals	1.11	Intermediate goods	0.65	Hides and Skins	0.73
Plastic or Rubber	0.63	Miscellaneous	0.34	Food Products	0.90	Wood	0.58	Animal	0.73
Stone and Glass	0.63	Plastic or Rubber	0.32	Raw materials	0.90	Animal	0.49	Transportation	0.64
Chemicals	0.60	Food Products	0.29	Plastic or Rubber	0.56	Vegetable	0.47	Chemicals	0.58
Consumer goods	0.57	Hides and Skins	0.23	Fuels	0.52	Chemicals	0.44	Consumer goods	0.46
Capital goods	0.49	Transportation	0.15	Transportation	0.33	Food Products	0.43	Textiles and Clothing	0.37
Fuels	0.40	Capital goods	0.11	Capital goods	0.29	Minerals	0.42	Plastic or Rubber	0.35
Mach and Elec	0.35	Textiles and Clothing	0.10	Mach and Elec	0.28	Raw materials	0.28	Capital goods	0.29
Textiles and Clothing	0.35	Mach and Elec	0.09	Miscellaneous	0.27	Transportation	0.20	Mach and Elec	0.25
Miscellaneous	0.31	Footwear	0.05	Wood	0.22	Fuels	0.17	Footwear	0.18

work (1965), the standard method for measuring comparative advantages has been to calculate a Reveled Comparative Advantage (RCA) index based on trade flows.

$$\text{Equation III: } RCA_{ab} = \{(x_{ab} / X_{ax})\} / \{(x_{wb} / X_{wx})\}$$

Where x_{ab} and X_{ax} are the values of country a's exports of product b and country's total exports and where x_{wb} and X_{wx} are world exports of product b and world total exports. A value of less than unity implies that the country has a revealed comparative disadvantage in the product. Similarly, if the index exceeds unity, the country is said to have a revealed comparative advantage in the product. A rating of less than cohesion is representative of the nation devouring a reported competitive product disadvantage. If the index approaches cohesion, the nation is assumed to have a disclosed comparative advantage in the commodity, accordingly.

Mean (Average taken) RCA scores of BRICS countries have been calculated from 1991 to 2018 and in the following table have been represented.

The mean RCA of BRICS nations when calculated from

1991 to 2018 enabled us ranking in accordance with products having highest RCA's. However, the reason why India's RCA in products are compared with RCA in products are compared with RCA in products of other countries in order to analyze how India is currently exporting and has more scope in exporting certain set of commodities to other BRCS countries. This could possibly be done by assessing the products embracing better RCA's in India than other BRCS countries, that products having low RCA's in other BRCS countries can possibly be imported from India in case India demonstrates a better RCA particularly in that product group.

India has a high RCA in products such as stone and glass (5.33) , minerals (3.81), Textile and clothing (3.67), Hides and Skin (3.46), vegetable (2.26), intermediate goods (1.76), Footwear (1.68), Animal (1.43), Consumer Goods (1.26), Chemicals (1.19) and Metals (1.11).Among the top ten exported products of India in 2018 were fuels, Consumer goods, Chemicals, machinery and electrical items, metals, capital goods and also transportation equipment. All these products also constitute to be the most exported

Table 4: Change in RCA from 1991 to 2018 to show the status (Increase/Decrease of RCA) of BRICS Countries

Countries	Brazil		Russia		India		China		South Africa	
	Increased	Decreased	Increased	Decreased	Increased	Decreased	Increased	Decreased	Increased	Decreased
Commodities										
Capital goods		-0.09		-0.02	0.27		1.34		0.13	
Consumer goods		-0.32	0.25		0.25			-1.07	0.28	
Intermediate goods		-0.57		-0.45		-0.16	0.01			-0.15
Raw materials	1.91		0.78		0.7			-0.81		-0.46
Animal	2.18			-0.65		-0.48		-0.72		-0.51
Chemicals		-0.18		-0.46	0.92		0.02			-0.05
Food Products		-1.18	0.23			-0.45		-0.57		-0.31
Footwear		-4.18	0.04			-0.24		-5.15	0.11	
Fuels	0.69			-0.24	0.47			-0.51		-0.86
Hides and Skins	0.17			-0.43		-1.98		-2.77		-0.32
Mach and Elec		-0.21		-0.03	0.24		1.43		0.07	
Metals		-1.94		-1.25	0.49		0.3			-1.17
Minerals		-0.28		-0.43		-4.99		-0.97		-1.04
Miscellaneous	0.08			-0.09	0.23			-0.23	0.13	
Plastic or Rubber		-0.2		-0.02	0.52		0.26		0.16	
Stone and Glass		-0.21		-0.28		-2.8	-0.1			-0.23
Textiles& Clothing		-0.42		-0.15		-0.73		-1.65		-0.27
Transportation	0.52			-0.11	0.46		0.24		0.92	
Vegetable	3.41		0.6			-0.54		-1.19	0.21	
Wood	1.84		0.43		0.2		0.19			-0.25

Source: Prepared by the author (World integrated trade solution, World Bank)

products from India to other BRICS countries which will be eventually analyzed in this research paper.

The change in RCA is calculated by deducting the RCA of a specific commodity in 1991 from the RCA of the same commodity in 2018. The revealed comparative advantage reveals the share of a country's exports in comparison to the world exports of a particular commodity or set of commodities. India has shown increase in RCA scores in commodities like capital goods, consumer goods, chemicals, fuels, machinery and electrical equipment's, metals, plastic and rubber,

transportation. The RCA of commodities which India has experienced an increase in when reviewed in case of other countries RCA's, we could get some matches in terms of decrease, maybe creating a scope for India to exports. The RCA of capital goods have decreased in Brazil and Russia and that of consumer goods has decreased in case of both Brazil and China. The decrease in RCA of intermediate goods in Brazil and Russia was more than that of India.

However China experienced a decrease in RCA of raw materials and also fuel. Similarly Russia and South Africa

Table 5: Top Six Export (Product-Wise) from India to BRICS along with their Mean RCA and Changev

Commodities	India and Brazil						India and China						
	India's Export To Brazil in 2018	% of Total Export	RCA Brazil	Change RCAB	RCA India	Change RCAI	Commodities	India's Export To Brazil in 2018	% of Total Export	RCA Brazil	Change RCAB	RCA India	Change RCAI
Intermediate goods	2042427.84	0.29	1.48	-0.57	1.76	-0.16	Intermediate goods	8249052.39	0.25	0.65	0.01	1.76	-0.16
Chemicals	1596501.10	0.22	0.6	-0.18	1.19	0.92	Consumer goods	3781897.16	0.12	1.53	-1.07	1.26	0.25
Consumer goods	817858.937	0.11	0.57	-0.32	1.26	0.35	Chemicals	3637757.20	0.11	0.44	0.02	1.19	0.92
Capital goods	671358.609	0.09	0.49	-0.09	0.29	0.27	Fuels	3120145.56	0.10	0.14	-0.51	0.52	0.47
Textiles and Clothing	488235.869	0.07	0.35	-0.42	3.67	-0.73	Raw materials	2738198.01	0.08	0.28	-0.81	0.9	0.7
Mach and Elec	332668.136	0.05	0.35	-0.21	0.28	0.24	Textiles and Clothing	1837912.90	0.06	2.78	-0.165	3.67	-0.73

India and Russia							India and South Africa						
Commodities	India's Export To Brazil in 2018	% of Total Export	RCA Brazil	Change RCAB	RCA India	Change RCAI	Commodities	India's Export To Brazil in 2018	% of Total Export	RCA Brazil	Change RCAB	RCA India	Change RCAI
Consumer goods	897965.22	0.19	0.8	0.25	1.26	0.25	Consumer goods	2412939.59	0.30	0.46	0.28	1.26	0.25
Chemicals	662003.389	0.14	0.68	-0.46	1.19	0.92	Transportation	1048907.33	0.13	0.64	0.92	0.33	0.46
Capital goods	607662.030	0.13	0.11	-0.02	0.29	0.27							
Intermediate goods	510845.69	0.11	1.24	0.45	1.76	-0.16	Chemicals	911488.812	0.11	0.58	-0.31	1.19	0.92
							Capital goods	850905.577	0.11	0.29	0.13	0.29	0.27
Mach and Elec	448074.901	0.10	0.09	-0.03	0.28	0.24	Intermediate goods	698410.759	0.09	2.07	-0.15	1.76	-0.16
Vegetable	328277.913	0.07	0.46	0.6	2.26	-0.54	Fuels	552288.769	0.07	0.83	-0.86	0.52	0.47

Source: Prepared and compared by the author.

has also experienced the same in case of fuels. There is a decrease in RCA of chemicals and metals in Brazil, Russia and also South Africa and machine and electrical equipment's and plastic and rubber goods in case of Brazil and Russia. However Russia has experienced a decrease in RCA in transportation. An extension of this analysis is demonstrated in the table below exhibiting the top six exported commodities from India to the other BRCS countries matched with their RCA.

Among the top six exported commodities to Brazil from India in 2018 mentions of intermediate goods, chemicals, consumer goods, capital goods, textile and clothing and also machine and electrical items is very relevant to the analysis. The RCA in case of intermediate goods, chemicals, consumer goods, and textiles well explain why India has an advantage in exporting such items to Brazil in lieu of Brazil's low RCA of such product. However the export of capital goods and machine and electrical equipment's in spite of having low RCA according to the analysis may be attributed to decrease of Brazil's RCA of such commodities and increase of India's RCA. RCA in case of chemicals, consumer goods, intermediate goods and especially vegetables is high and is a perfect export to be done to Russia (low RCA in such products). Export of capital goods and machines can be attributed to the reason that India has a higher RCA in such products in comparison to Russia. India has high RCA (Greater than One) in case of Intermediate goods and chemicals which in comparison to China is high (China has low RCA, lower than one in case of such commodities). These constitute among the top six exports however India also exports textile and clothing to China because the RCA in case of the same is greater than that of China's RCA of textile and clothing. India also exports consumer goods, raw materials and fuels to China. In case of fuels the RCA is greater than that of India and so is the in the case of Raw materials. However in the case of consumer goods there is a decrease in RCA of consumer goods in case of China over the years and

according to the analysis that may be attributed as a reason for the same. India's RCA for consumer goods and chemicals is greater than one and that is South Africa's is less than one clearly indicating that India has a high scope of exports of such items to South Africa. So has happened as they are among the top six exports from India to South Africa. However, India also exports transportation items according to South Africa, as the demand of South African economy is so high in case of automobile parts, repairs and cars and many commercial agreements (not explored in this research paper) made easier for Indian traders to export and especially vehicles etc. which constitute to be almost 10% of exports (Daoui 2019). Other exports include capital goods and also fuels.

The next and the last part of the analysis incorporates a general study of product wise exports from India to the world including their growth rates, semi elasticity to support the outcomes of how India's exported goods have performed over the years, and India exports goods which India is supposed to export. The analysis is carried out with the help of Log-Lin regression model which estimates the relative change in the regress and with respect to the regressor. In our case the regressor is the time and the regress and are all those commodities which are taken up in this study in order to analyze their RCA and exported quantity of India over other BRCS countries.

We are using in this case a log-Lin model.

The model Begins with $Y_t = Y_0 (1+r)^t$

R is compound (overtime) rate of growth of Y. Taking the natural logarithm we get

$$\ln Y_t = \ln Y_0 + t \ln (1+r)$$

Now letting $\beta_1 = \ln Y_0$ & $\beta_2 = \ln (1+r)$

$$\ln Y_t = \beta_1 + \beta_2 t$$

Adding the disturbance term we obtain

$$\ln Y_t = \beta_1 + \beta_2 t + \mu$$

$\beta_2 = (\text{Relative change in Regressand})/(\text{Absolute change in Regressor})$

It is change in growth rate of Y for an absolute change in X (in our case t) and $\beta_2 \times 100$ also denotes semi elasticity of the dependent variable with respect to the independent variable. In our case we have used the product wise exports from India to the rest of

the world in due course of time from 1991 to 2018 to calculate the semi elasticity of the products. The following table demonstrates result of the log-Lin regression model carried out.

In the analysis β_1 usually defines the log of dependent variable considered (different in different cases) in

Table 6: Regression Results

	β_1	S.E (β_1)	β_2	S.E (β_2)	R ² (%)	Change in RCA
Ln Ex CAPG	13.5*	0.1*	0.16*	0.006*	96	0.27
Ln Ex CONG	15.56*	0.92*	0.12*	0.005*	96	0.25
Ln Ex IG	15.7*	0.07*	0.1*	0.004*	96	-0.16
Ln Ex RawM	14.4*	0.1*	0.1*	0.006*	91	0.7
Ln Ex An	13.3*	0.09*	0.1*	0.005*	93	-0.48
Ln Ex CHEM	13.9*	0.06*	0.13*	0.004*	98	0.92
Ln Ex FP	13.3*	0.13*	0.09*	0.008*	85	-0.45
Ln Ex FOOT	12.7*	0.06*	0.08*	0.003*	95	0.24
Ln Ex FUEL	11.9*	0.36*	0.23*	0.02*	82	0.47
Ln Ex H&S	13.56*	0.05*	0.05*	0.003*	93	-1.98
Ln Ex M&E	13.4*	0.09*	0.14*	0.005*	96	0.24
Ln Ex MET	13.6*	0.12*	0.14*	0.007*	93	0.49
Ln Ex MIN	13.2*	0.22*	0.08*	0.01*	62	-4.99
Ln Ex P&R	12.5*	0.1*	0.13*	0.006*	95	0.52
Ln Ex S&G	14.8*	0.07*	0.11*	0.004*	95	-2.8
Ln Ex T&C	15.4*	0.04*	0.08*	0.002*	97	-0.73
Ln Ex TRANS	12.5*	0.14*	0.17*	0.009*	93	-0.46
Ln Ex VEG	14.2*	0.1*	0.09*	0.006*	90	-0.54
Ln Ex WOOD	11.1*	0.07*	0.13*	0.004*	97	0.2

Source: Calculated by the author

the beginning of the study. However, as we can notice here the values appear significant at 1% level of significance and the highest growth rate appearing to have been credited to fuels. Correspondingly the semi elasticity of fuel exports is very high (23%) signifying for an absolute change in time period the fuel exports will change the maximum, and it has. It is now one of the largest exported commodities from India. India mostly exports mineral oils including fuels which have showed a significant change in revealed comparative advantage as well. However, the semi elasticity of consumer goods (12%) and capital goods (16%) is very high as well. Capital goods exports outperformed in the export basket of India in 2019

(Singh 2019). There is a significant positive change in RCA and they form a significant part of exports of Indian Economy. Chemicals and pharmaceuticals are top of the talk now. Indian export basket is undergoing change now is more concentrated on chemicals machinery etc. (Burrange and Chaddha 2015). Machinery and electrical exports from India with a semi elasticity of 14% represents good growth. Electrical manufacturing and equipment emerging as major contributor in increase in exports of capital goods sector (Singh 2019).Transportation export from India (13%) mainly accounted for a great value. Motor vehicles one of the largest volume of Indian transport equipment exports was for the fiscal year

2019 (Jaganmohan 2019). When countries have high RCA's in case of some products and they constitute the highest exports as well, this is exactly what David Ricardo explained in the theory of revealed comparative advantage to be. In case of India, it has high RCA in chemicals, Consumer Goods and also Metals which constitute to be among the top exports also but what about India's exports of Fuels, Capital goods and also machine and electrical equipments, which has lower RCA (lesser than one, however positive change in RCA has been observed over the years). The explanation for this disparity may be what? Why would a country export something more effectively produced by other countries en masse? There is much to talk over. For example, distortive policy policies, such as trade barriers, may promote unsustainable development in a specific sector or alter the balance in exports from a region, as might high exchange costs associated with product transport or border clearance.

Conclusion

India's trade with the BRICS nations is close to significant majorly because of China. India and China are significant trading partners but however India does not enjoy trade surplus with any of the BRICS countries except with Brazil. India's export value to Russia is quite less than its import values and trade intensity bifurcated reveals more import intensity than export and in both the cases less than unity (unexploited trade). Russian markets are said to be mostly dominated by China (Nicolas Trickett, *The Diplomat* 2017). India's import intensity with China is larger than its export intensity which is also less than unity exhibiting instances of unexploited exports. Trade deficit of India is increasing and is quite large in comparison to other BRICS countries. India's trade with South Africa however reveals a picture of exploited trade but the CAGR of exports is greater than CAGR of imports. India has trade deficit with South Africa. With Brazil in the recent past India enjoyed trade surplus but in recent years majorly after 2015 India has been exhibiting trade deficit. This can be attributed by the global slowdown affecting Indian exports altogether.

The analysis was carried out initially as a whole over the years considering overall exports and import values. This analysis was however followed by a second different facet altogether. The revealed comparative advantage of Indian products in comparison with the products of other BRICS countries gives a scope to identify the favorable commodities to be exported by India to the other BRICS nations. Evidences reveal that the commodities, which had higher RCA in India and lower in other BRICS countries, were eventually exported from India to the particular nations. This

is however interesting that India also has high semi elasticity of certain commodities and is engaged in exporting them to the world including the BRICS countries. In this context some commodities, which have both a high RCA and high growth rate, are chemicals, consumer goods, metals etc. However products having low RCA (yet improving RCA) have very high growth in exports for example Fuels which form an integral part of exported items from India to BRICS countries like China and South Africa. In this context capital goods also form an integral part of India exports attributing to improving condition of RCA status. Other aspects including trade barriers and government policies are however not a part of this study. There is however immense scope of trade between the BRICS countries however and this topic still have several components to explore.

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A Study on Digital Transformation in Payments: Customer Preferences and Adoption Towards Mobile Wallets

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Abstract

The development of technology plays an important role in daily life of people. Mobile phones are used everywhere in the modern world. The advancement in technology made everything possible by installing an application in mobile phones. By using the application, the user can transact with their money, do immediate payment, transfer and pay any bills at their convenience. Digitalization has transformed the payment and cash transaction much easier by using apps. Recently the physical payments have been transformed to digital payments. This study is carried out to find out the customer preferences and adoption towards mobile wallets in Bangalore. The study found that customers prefer mobile wallets as it allows with convenience, safety in recent times, lighter pockets and security. PayTm is most preferred mobile wallet. Certain issues like internet connectivity issues, lack of trust and inconsistency in working of mobile wallet refrain the respondents from using the mobile wallets.

Keywords: Digital payments, immediate payments, Mobile phones, Transformation, Technology, User performance

Introduction

The development of technology plays an important role in the current scenario. The advancement of technology has changed the traditional payments to digital payments. Mobile wallet is a type of payment service, through which individuals can receive and send money by using mobile device.. It is a virtual wallet that stores bank and card details on mobile devices which can be used to make payments. Many customers are attracted towards these mobile wallets because of convenience and speedy transactions and can also be used in many places. For using the mobile wallet services customers need to register and preload with preferred amount which can be used for shopping, recharge and other utilities. These wallets allow the users to store multiple card details and bank account numbers and once these details are registered it avoids entering account information every time. Most of the users are attracted because of one touch payment and convenience, but convenience is not everything, its security features is also important which will help the consumers to continue using the mobile wallets in future. One of the recent development in mobile wallet includes digital authentication where a pin is required when using it and many smartphones have biometric authentication to ensure only authorized person is

using the device. There is a drastic growth of mobile wallets in India recently and this transformation in making payments is an important contributor in pushing the cashless and electronic payments. The traditional way of making and receiving payments has changed because of digital transformation and higher use of technology such as smartphones, tablets. Mobile wallets gives secured payment, lighter pockets and time saving but with cons like preloading, internet connectivity and finally no mobile no wallet. This research was conducted to study the digital transformation in payments-customer preferences and adoption towards mobile wallets.

Review of Literature

- Shailendra Singh Rana (2017) in their research tried to examine "The preference towards the mobile wallets among the university students in Luck now City". Population of their study included students studying in undergraduates, post graduates and Ph.D. programmes in various universities of Luck now with 95 as their sample size and used purposive sampling. They concluded that users prefer mobile wallets as it helps to avoid queue, time, saving and instant payments and nearly 44% of users agreed they prefer cashless payments and 40% have no problem in trusting online transactions.

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- DR G. Pasupathi and G. Rekha conducted research on "customer's perception towards mobile wallets with special reference to Google pay" and the study was accomplished to explore consumers perception, awareness and willingness to engage in Google pay to replace physical wallet and their research they used simple random method and covered 150 respondents of Trichy district. Their study proved Google pay is getting more and more trending and it is convenient and easy for users.
- Dr.S. Manikandan, J. Mary Jayakodi(2017) "An Empirical study on consumer adoption towards mobile wallet with special reference to Chennai city" concluded many people were aware of mobile wallets and if security issues are taken care in a better way so that risk factors are reduced and usage of mobile wallet can be increased.
- S. Birundha and Dr. C. Pushpalatha in their study "users satisfaction towards mobile wallets with special reference to Udumalpet taluk" identified the users awareness, preference and satisfaction towards mobile wallets and concluded PayTm reached maximum consumers and it was the most preferred mobile wallet among the consumers.

expert opinions. The sample size used for the study is 80 which were selected from few areas of Bangalore city, using simple random sampling method. Since larger population uses mobile wallet and it is difficult to study the large population in short span of time. So the sample was selected randomly among the individuals, households and institutions. The statistical tools used to analyse the data include simple percentage analysis, chi-square test to find the relationship between the variables and ANOVA.

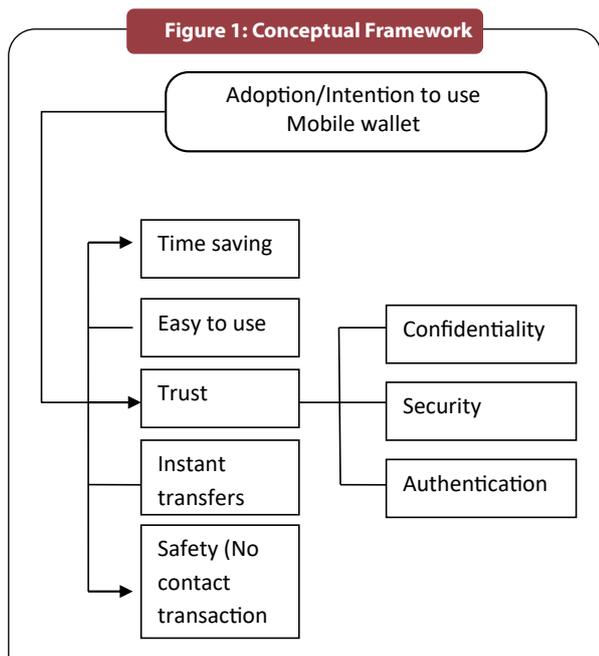
Analysis and Interpretation

Table 1: Showing Demographic Background

S. NO	ATTRIBUTE	CATEGORY	NO.OF RESPONDENTS	NO.OF RESPONDENTS
1	AGE	17-20	12	15
2		21-25	24	30
3		26-30	28	35
4		30 &above	16	20
1	GENDER	Male	44	55
2		Female	36	45
1	Educational Qualification	Under graduate	40	50
2		Post graduate	27	34
3		Others	13	16

Source: Primary data

Table 1 shows the demographic background of the respondents. 35% of respondents belong to age group of 26-30, 30% are in the age of 21-25, 20% are above 30 years and 15% are in the age group of 17-20. As per gender classification 55% of respondents are male and 45% are female. 50% of total respondents are Under Graduates and 34% are Post Graduates.



Research Methodology

The research design used for the study is descriptive type of research, which helps to describe about the samples selected in detail and to understand the relationship between the various variables by using statistical calculations. The source of data used is primary and secondary data. Primary data was collected using questionnaire with closed ended questions and secondary data through internet and

Table 2: Regular and Irregular users of mobile wallets

	No of respondents	% of respondents
Yes(Regular)	66	82
No(Irregular)	14	18
Total	80	100

Source: Primary data

Table 2 shows the regularity in using mobile wallets, it is understood that 82% respondents use mobile wallets regularly and 18% are irregular users.

Majority respondents are regular users of mobile wallets.

Table 3: The most influencing factor in using mobile wallets regularly.

To find the most influencing factor in using mobile wallet, data was collected only from respondents who use mobile wallet on regular basis that is out of 80 respondents only 66 use mobile wallets regularly and 14 respondents are not regular users.

Table 3: The most influencing factor in using mobile wallets regularly

Most influencing factor	No of respondents	% of respondents
Security	11	17
Pandemic situation	21	32
Lighter pockets	12	18
Time saving	16	24
Rewards	6	9
Total	66	100

Source: Primary data

Table 3 shows the factors influencing to use mobile wallets regularly. 32% of respondents are using mobile wallets regularly in recent times because of pandemic situation considering safety. 24% of respondents are using mobile wallets because its time saving tool, followed by 18% of respondent's reason beyond using mobile wallets is lighter pocket, 17% prefer for security and 9% for rewards.

The most influencing factor is the safety (no contact transactions) of using mobile wallets during pandemic situation.

In factors restricting from using mobile wallets, data was collected only from 14 respondents who are not regular users of mobile wallets to find the exact reason which is restricting them from using it.

Table 4: Factors restricting respondents from using mobile wallets

Factors	No of respondents	% of respondents
Lack of trust	4	29
Pervasiveness	2	14
Habit	2	14
Internet connectivity issues	3	22
Inconsistency in mobile payment experience	1	7
Vague apps	2	14
Total	14	100

Source: Primary data

29% of respondents are not using mobile wallets regularly due to lack of trust. 22% of respondents are not using regularly because of internet issues and 14% of respondents felt the use of mobile wallets was pervasiveness due to which they were not habitual of using mobile wallets.

Majority of respondents do not use mobile wallets regularly due to lack of trust and internet issues.

The above table reveals that 38% respondents use mobile wallets for peer to peer payments. 20% respondents use it for shopping. 17% respondents use mobile wallets for paying utility bills, 15% use it for recharge and 10% respondents use it for other purposes.

Table 5: Respondent usage preferences of mobile wallets

Usage preferences	No of respondents	% of respondents
Recharge	12	15
Utility bills	14	17
Peer to peer payments	30	38
Shopping	16	20
Others	8	10
Total	80	100

Source: Primary data

Majority of respondents use mobile wallets for making peer to peer payments.

Table 6: Showing the Satisfaction level of respondents towards secured payment in mobile wallets using Likert's five point scale

Agreed level	No of respondents	% of respondents
Strongly agree	21	26
Agree	30	37
Neither agree nor disagree	14	18
Disagree	9	11
Strongly disagree	6	8
Total	80	100

Source: Primary data

Table 6 reveals 37% respondents agree that mobile wallets are secured and they are satisfied using it, 26% of respondents strongly agree it is safe to use and 8% respondents strongly disagree with the security feature of mobile wallets, 18% neither agreed nor disagreed and 11% respondents are not satisfied with the security feature.

Majority of respondents agree that mobile wallets are secure and they are satisfied.

Table 7: Showing the respondent's opinion about mobile wallets refraining other cashless payments

Opinion	No of respondents	% of respondents
Yes	26	33
No	54	67
Total	80	100

Source: Primary data

From table 7 it is found that 67% respondents feel mobile wallets are not refraining them from other cashless payments and 33% respondents agreed it refrains other cashless payments

Table 8 reveals ranking of mobile wallets. 75% respondents priority is PayTM, PhonePe and Google Pay are ranked second, followed by BHIM, bank mobile apps and Amazon Pay.

In order to find the relationship between respondent's age and regularity in using mobile Wallets, Chi square test was used to test the hypothesis and the summary of the findings are given below:

Table 8: Showing the ranking of mobile wallets

	No of respondents	% of respondents	% of respondents
PhonePe	2	44 out of 80	55
PayTm	1	60 out of 80	75
Google Pay	2	44out of 80	55
BHIM	3	40 out of 80	50
Banks mobile apps	4	38 out of 80	48
Amazon Pay	5	35 out of 80	44

Source: Primary data

From the Chi-square analysis to find the relationship between respondent's age and regularity in using mobile wallet. It is concluded that there is no relationship between age and regularity in using mobile wallets since the calculated value of chi-square (0.289839) is lesser than table value (7.8147) at 5% level of significance null hypothesis (H0) is accepted.

The chi-square analysis to find the relationship between educational qualification and regularity in using mobile wallets reveals, there is no relationship between them as the calculated value of chi-square (0.160133) is lesser than table value (5.991) at 5% level of significance. The null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected.

Table 9: Showing the ANOVA analysis

Source of variation	Sum of squares	Degree of freedom	Mean square	F-ratio	F-ratio
Between the sample	.085	1	.085	.581	.448
Within the sample	11.485	78	.147		
Total	11.550	79			

The calculated value F is .581 which is higher than the table value .448 @ 5 % with the degrees of freedom 1 and 78. Hence it fails to accept H0 (null hypothesis) and accepts H1 (alternative hypothesis). There is variation between gender and regularity in using mobile wallets.

Suggestions

1. To increase the usage of cashless payments like mobile wallets, more security options should be introduced, which is important in the current scenario to gain the confidence of the users.
2. Unlike cards, cash back facilities are not offered when using mobile wallets. Though they offer rewards it is not sufficient to increase the users. So the focus should be given on cash back offers, coupons and other rewards schemes to increase the users.
3. Modern mobile payment experiences inconsistency. This slows the adoption of mobile payments. Users are confused sometimes, so the payment method should be simple and should work consistently.

Conclusion

Mobile wallets are considered as extended family of mobile banking. It helps the users to safely store their information on their smart phones. This helps them in reducing the redundancy in entering the details again and also it reduces the difficulty of carrying all cards.

It is clear from the research, customers prefer mobile wallets as it allows with convenience, safety in recent times, lighter pockets and security. PayTm is most preferred mobile wallet. Certain issues like internet connectivity issues, lack of trust and inconsistency in working of mobile wallet refrain the respondents from using the mobile wallets. To conclude, mobile wallets are having many advantages in this pandemic situation and it the most convenient method for making payments for the payments.

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Micro- Stay Hotels In India: An Approach to Hotel Revenue Optimization

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Abstract

Micro-stay hotels have paved the path for hospitality industry to meet the budding demands of millennial travelers and accommodate the market for mid-scale and small-scale hotels. Micro-stays are small sized properties about half the size of a traditional hotel room that provide high-quality furnishing and amenities in a room, meets the unique demands of each travel destination through locally encouraged restaurants and bars. These hotels also cater to the needs of business and group travelers, pilgrims and students, by easing the process of booking and payment for inter-connected rooms. This paper takes a peek into the emerging concept of micro-stay segment that is acting as a solution for hotels to augment revenue, by selling vacant rooms multiple times in a day. The paper throws light on the product characteristics; segmentation, targeting and positioning; advantages and challenges of micro-stay segment. The paper also conceptualizes the framework of micro-stay, emphasizing the driving forces and their impact on QOL, segment growth and competitive advantage.

Key Words: Competitive advantage; Customer satisfaction; Micro-stay; Quality of Life; Segmentation, Targeting and positioning; Sustainable management.

Introduction

Service sector plays an important role in the economic development of India, contributing about 53.66% to the Indian GDP. With the growing robust customer demand, increasing disposable income, increasing middle class, lucrative opportunities, diverse attractions, and the hospitality sector is experiencing a vigorous growth and make for 7.5 per cent of the country's GDP (Malhotra, 2017). As per KPMG report, the Indian hospitality sector is expected to grow at 16.1 per cent CAGR to accomplish Rs 2,796.9 thousand crores in 2022. As per the Travel & Tourism Competitiveness Report 2019, published by the World Economic Forum, India was ranked 34th. The Indian hospitality sector incorporates myriad activities, within the services sector and is considered as a key job provider both directly and indirectly (Malhotra, 2017). Infrastructure development, guest satisfaction and diverse culture are inevitable to the growth of the Indian hospitality sector. India has made its way into medical, wellness, eco tourism, religious tourism, and micro stay hotels.

India is one of the most culturally diverse countries in the world, having diverse music and folklore, dance, art, culture, language, locations, cuisine, giving a boost to the travelers from all around the world. India's culture is very well suited for tourism; however

there is a need for generating flexibility in Hotel bookings.

The conception of providing hotel room to customers/guests on the basis of hours is called micro-stay. This was once considered a niche service, offering short, non-overnight stays in hotel rooms, and is now expanding around the world. It is partially based on the concept of capsule hotels, and is also referred to as short-stay, day-stay, or capsule stay in other countries. This concept is now an emerging and pioneering trend in India. This emerging concept has been proven to be a win-win option both for travellers and hotels, and researchers are considering this as an 'out-of-the-box' marketing tool. StayUncle, LuvStay, Slicerooms, Frotels.com, Fellastay, and BreviStay are some of the popular examples of micro-stay hotels in India.

Literature Review

Recent developments of Hospitality Industry in India

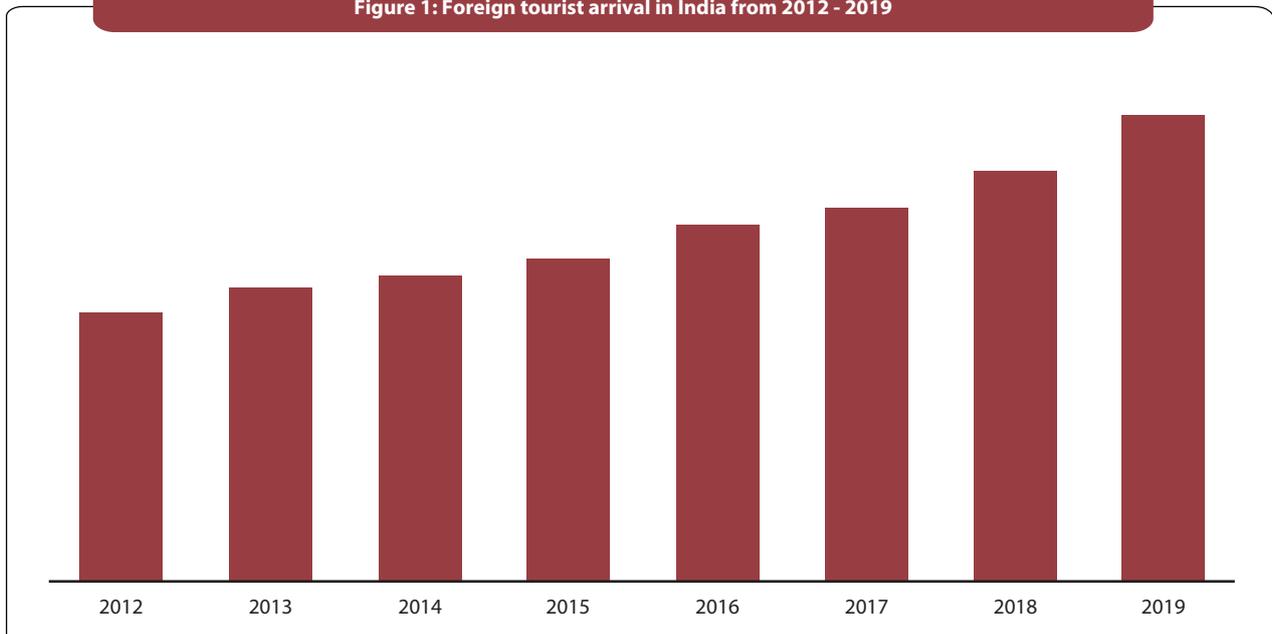
The Indian hospitality and tourism industry is expected to reach a massive INR 1,210.8 Billion, by the end of 2023 (Jain, 2020). In the year 2017, India had more than 10 million foreign tourists and experiences a growth rate of 14%, compared to year 2016 and the number was double compared to the

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years 2009 and 2010. As per India's Travel and Tourism Competitiveness Index, India was ranked 34 out of 136 countries in 2019 and 10th out of 136 countries

in the group of price competitiveness. This means that India is at a good position to attract tourists all over the world ("Hospitality industry, 2020).

Figure 1: Foreign tourist arrival in India from 2012 - 2019



Source: Mordor Intelligence

Segmentation Insights

Micro-stay - a niche/ unbranded segment comprises of more than 70% of the total hotel rooms. The micro-stay hotels are expected to experience the growth rate of 7.36% in the year 2018 to 14.80% in the year 2024. Moreover, this niche segment, contributes about 5% of the total hotel industry, with respect to room supply.

As per the city-wise supply of rooms, tier I cities like New Delhi and Mumbai accounted for highest number of rooms, followed by Bengaluru and Chennai. Together they accounted for 30% of the total market share in India. Smaller cities and town, accounts about 27% of the hotel industry, where the market is subjugated by unbranded, niche and unorganized hotels.

Government Initiatives

- Indian government has initiated the schemes like SWADESH DARSHAN (Integrated Development of Tourist Circuits around Specific Themes), PRASHAD (National Mission on Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive) and E-Visa to promote the inflow of tourists in the country.
- Ministry of Civil Aviation has come up with schemes, UDAN - Ude Desh ka Aam Nagrik and NABH Nirman, under vision 2040, to augment guests from the remote areas of the country.
- Ministry of Railways is improving rail infrastructure throughout the country to make traveling simpler

and safe ("Assessment", 2020).

History of Micro-stay

The concept of a short/micro stay hotel is not novice. The concept first originated in Japan with the name "capsule hotels", that have been providing petite sleeping spaces for businessmen who worked or partied post their work hours. Day-use rooms offered in Europe and America started gaining significance during the economic downturn, with smaller number of people traveling. Now micro-stays are sprawling in India as well and day rates, in hotel paradigm, have become micro-stays (Weed, 2013). BYHOURS was founded in 2012 in Spain, as a booking platform for hotels offering micro-stays (Thompson, 2016)

Majority of OTAs like by hours, Dayrooms, Day use, OYO, Yatra, MiStay and Hotels ByDay are providing these hourly-based booking options. Big hotels are also providing meeting spaces with all the itineraries in place. Hotels are making effective use of their physical assets.

Micro-stay market in India

The concept of micro-stay is going to be next innovative segment in hospitality industry, and it is going to benefit not only travelers but also provides hotels a new business line with a new customer segment. There exist an untapped gap in the hotel market for the short term use of rooms, the solution to which, the customers are cleverly demanding to make the lives comfortable and efficient (Thompson,

2016). For eg. StayUncle, LuvStay and BreviStay, were able to achieve breakeven point within a few months of their operations, and have been profitable since their advent. For example, StayUncle, earned \$2 million revenue annually at a rate of 3-40%, and BreviStay achieved sales worth Rs 3 crore in 2019, at a growth rate of 15% (Arora, 2020).

The average hotel occupancy rate is at around 65% in India, thereby the unoccupied hotel rooms comprise about \$6 billion of untapped opportunity for hotels in terms of ARR (Naik, 2019). Hotels have almost of 50 - 60% occupancy rate in the day time and can bank upon the opportunity to earn additional income by reselling rooms multiple times in a day. Hotels now have an option to decide their inventory open and close, not only by date, but also by time.

Indian market is experimenting with the concept of micro-stay. OTAs like OYO, Yatra, MiStay are letting guests book hotels on an hourly basis. Hotels like Ginger are specifically targeting the business travelers, providing discounts and amenities like free Wi-Fi, and allowing them to check-in and check-out between 7 A.M to 7 P.M. These players are making use of product differentiation strategies to keep up to the pace of competition. For e.g., StayUncle, have introduced love kits in the collaborator hotel rooms, to augment customer satisfaction and is planning to target homosexual couples too.

Product characteristics

Although any classic hotel operator share the purpose of selling a hotel room with all amenities for fixed check in/ check out, micro-stays on the other hand, attempt to provide 'short period of comfort', user experience and convenient rooms.

Size and capacity

Most of the micro hotel rooms occupy less than 200 square feet, while some are even less than 100 square feet (Chiasson, 2019). The customers get a comfortable, suitable room without any additional space. Even if some guest needs to spend the night, he can select an airport-adjacent micro hotel for a daytime comfort. Numerous micro stays have extra storage and business solutions than a normal hotel room for better competitive advantage. Customers do not have to search desperately for a place to charge the phone, plug in the device, stack the bag, or tending kids. Micro hotels are all inclusive of smart design, smart storage, and ample guest experience.

For example, MiStay, is presently operating in 100 cities and has about 1500 hotel partners (Naik, 2019). The partners of the company include premium hotel brands like The Park, Radisson, Holiday Inn, Lemon Tree, Mango Hotels, Mint Hotels, and Treebo among others (Sangwan, 2019).

Site prerequisites

A micro-stay hotel should meet the following site prerequisites-

- Nearness to airports (ones with scheduled flights) and railways;
- Public transport accessibility;
- Nearness to restaurants, shops and cafés;
- Road access and parking facilities (ones with own vehicle)

Room amenities

Micro-stay hotel designers venture to foresee the specific requirements of their guests. To achieve this objective, the rooms are designed to house guest requirements, leading to better utilization of space.

The micro-stay hotel provides capsule units, that incorporate mattress, pillow, comforter, sheets, towels, bathroom items, under-bed storage, a flip-down desk, a closet system, a small refrigerator, modular furniture and Wi-Fi. The exclusive hotel also offers double bed rooms, even a bed and loft room.

Every micro-stay hotels offer a safety deposit box for valuables, mobiles and laptop. Additionally, there are storage spaces designed for massive items like suitcases, under the bed storage, and hangers. Micro-stay offers meeting and work spaces, along with printers, whiteboards, stationery, and Xbox game systems for business travelers

Public spaces – Micro-stay hotels emphasize public spaces to incorporate interface between guests and local culture experience. These spaces include fitness rooms, gyms, cafés, lounges, pools, bars and restaurants. Food and beverage facilities are given uppermost priority in the micro-stay hotels and the level of service differs based on guest tastes and preferences.

Revenue aspects

Micro-stay helps hotels to make more revenue as they are able to sell the rooms more than once a day. Micro stays attract more travelers, pilgrims, students and visitors to hotels, who wish to spend their time in a nap, shower or freshen up. This can help travelers to shun unnecessary waiting time at airports, railway stations or bus stands. Providing guests with short and comfortable stays is going to increase room occupancies, generate more profits and get the rooms utilized in a better way. Customers too are benefitted from this concept, as it saves their money, while meeting their objective.

Micro-stays give the opportunity to the hotels for optimum utilization of their inventory, enhanced occupancy, thereby increasing their revenue. In India, a majority of rooms goes unoccupied, with an average occupancy rate approximately at 60 - 65%. Thus the unsold hotel rooms comprise about \$6 billion of the

untapped revenue opportunity for hotels. A novel demand can be created through micro-stay, enabling travelers to book and pay for the hours they have stayed. Micro-stay can augment ARR, with a very apparent trend of check-in /check-out. Hotels can achieve more than 100 percent occupancy by using this concept.

Current gap in the literature

Following literature gaps are noticed in the study:-

- i. Micro-stay is an emerging concept. Still there is a misconception among the hotel aggregators that the hourly basis rooms can be utilized for wrong purpose. This affects the revenue generation of the hotel.
- ii. Micro-stays are collaborated with max 3.5 rating hotels which comprises of 70% market leaving behind untapped 30% of the market share that is occupied by the big players like Taj, Oberai, Sarovar, Radisson etc. Luxury and space constraint may be looked into for future research
- iii. Targeting customer base is still a big challenge and also the ease of booking and cancellation of the rooms should be improved further.
- iv. Making use of social media as a promotional tool can be enhanced further. Aggressive promotional tool to be used.
- v. Software development and its integration in the existing hotel system needs be explored

Objectives of the study

The study incorporates the following objectives

- 1) To study the advantages and challenges faced by micro-stay hotels.
- 2) To analyze product characteristics; Segmentation, Targeting and Positioning (STP) of micro-stay hotels.
- 3) To construct conceptual framework of Micro-stay model.

Methodology

The author has referred to secondary sources to derive fundamental concepts and framework of micro-stay. Since limited resources were available on this concept, mainly in the form of expert views, newspaper and online sources; the author attempted to link all the given information into already established theories of marketing (Segmentation-Targeting-Positioning, Customer satisfaction, competitive advantage), external factors (Social, economic, technological, community participation). All the established theories were correlated to form a conceptual model of micro-stay segment to gain in-depth insight into this emerging concept around the world.

Scope of the present study

The study confines itself to micro-stay hotels that operate in the entire country - its characteristics; the advantages, challenges and drivers of micro-stays in India.

Findings and Discussions

Advantages of micro-stay hotel

Table 1: Advantages of micro-stay hotel

Sl. No.	Parameters	Advantages
1.	Flexibility	<ul style="list-style-type: none"> •Facilitates booking for few hours or even an hour •Facilitates last minute and hassle free booking. •Hassle free check-in/check-out •Ideal for travelers, millennial, businessmen, unmarried couples. •Right option to relax for a while.
2.	Privacy	<ul style="list-style-type: none"> •Provides reliable and secure space
3.	Cost effective	<ul style="list-style-type: none"> •Resolves the issue of overpaying for a short stay effectively. •Paying on hourly basis
4.	Nationwide accessibility	<ul style="list-style-type: none"> •MiStay has hotels in 90 + cities in India including all the major cities (Neha, 2019).
5.	Wide range	<ul style="list-style-type: none"> •MiStay comprises a wide range of hotels, with about 900+ hotels in more than 90 cities in India (Neha, 2019).
6.	Affordability	<ul style="list-style-type: none"> •Provides hotel like facilities. •24 * 7 service facilities •Increased occupancy
7.	Revenue	<ul style="list-style-type: none"> •Boosts revenue by selling a room multiple times in a day •Increase in RevPAR •Selling unused space and time

Source: Calculated by the author

Challenges faced by Micro-stay hotels

While the concept of micro stay is still emerging in the Indian market, the opinions of people are divided. Few people are happy with this mobile facility of accommodation, but others are still apprehensive to adapt to the concept of pay by the hour hotels (Singh, 2020)

- **Health related issues** – Certain micro-stay rooms are not a good alternative for claustrophobic travelers, due to limited space. While most of the rooms are bright and airy, there are some obvious exceptions. Customers should be careful enough before spending and do a thorough research on internet for rooms.
- **Sharing options** - The most crucial aspect of a micro stay room is to share it with others. It's always better to select for larger room, if available. Occasionally, guests look for hotels with a lounge or bar, to spend extra time, if needed.

- **Perception** – The concept of micro-stay can be perceived in the wrong way or even exploited, which may taint the reputation and brand of a hotel.

Analysis

Segmentation, Targeting and Positioning

Both geographic and demographic segmentation is important because micro-stay needs to know which customers to target. For example, Cleartrip has launched "Quickeys", that provides last minute hotel deals (Rai, 2012). As per this service, hotel rooms can be booked for the same day or the next day. The rooms can be booked even late night as 11pm and can be check-in on the same day. There is no limitation on the length of stay, and there are lots of discounts and offers for customers.

Table2: Customer segmentation and profiling

Demographic segments	Profile
Layover travelers	Travelers with long journeys, needs rest for a while and can opt for micro-stay. Travelers can avoid the unnecessary waiting time at an airport or a railway station, by utilizing micro-stay.
Tourists	Tourists visiting other places or coming from different places, hardly get time to spend in hotel rooms. They are busy in sightseeing and exploring various places during the day. Tourists can book hotel for the night, rest, and move on to the next destination.
Business travelers	They travel for long hours and look for a place to refresh and have a small nap, before moving on for business meeting or presentation. Micro-stay can solve the purpose of business travelers. SliceRooms.com is the hotel website, to offer this service to cater to the business travel segment and pilgrims segment.
Religious tourists	Pilgrims opting for continuous transportation need a hotel room for freshening up and moving to the temple or religious place.
Cultural tourists	Cultural tourists travel to explore cultures, customs, festivals etc. For them too micro-stay is a viable option.
Backpackers and trekkers	They need a nap to give themselves some rest and refreshment, and then proceed on their next adventurous journeys.
Students	Students travel to different places for competitive exams and for attending workshops or seminars. They have a limited budget and they need a room to just relax and rest before exams.

Source: Author

Targeting the customer

Micro stay is a rational option for travelers, who travel to and fro to different cities for business meetings, exams or pilgrims etc. and have to return on the same day. The target customers are business travelers, trekkers, layover travelers, students; tourists etc. and content marketing plays a crucial role in popularizing the concept among the customers.

Differentiation in the amenities offered by micro-stay, are based on the concept of market segmentation that a hotel tries to target. For eg. budget micro-stay

hotels like Brevistay, mainly targets the business traveler as a part of its strategy, and the amenities offered by it are limited to bed, bathroom, and storage facility. Brands like Mistay, StayUncle, offers additional facilities such as larger bed, extra space, hand-held steamers, and extra furniture. Finally, others aim to generate micro rooms that cater to the needs of families and groups travelers, by offering 30% interconnected rooms.

Micro-stay concept is based on consumer benefits (In terms of time, accessibility and cost) and pricing

positioning strategy, to attract customers from varied segment of the society. Considered as one of the emerging 'Out of the box' marketing tool, micro-stay is unarguably a powerful marketing strategic option for hotels, as they can attract many guests to their hotels, thereby increasing their revenue.

Conceptual framework of Micro-stay Model

Tourism industry has become one of the leading industries of the world and is still growing at an increasing pace. Tourism has been identified as an effective contributor to improve the income level of the community and has the potential to improve the quality of life (Andereck & Nyaupane, 2011). With the growing popularity of micro-stay in India, it is an effective and powerful marketing tool to bank upon.

The model presented below, shows the various drivers of micro-stay sector and their impact on industry growth, Quality of Life (QOL) and competitive advantage. The model presents how the micro-stay business embarks on the path, which leads from drivers, inputs to the sustainability of community-based tourism in the form of management of resources. The model included in the study was conceptualized in January, 2020; after considering the research gap in literature studied.

The conceptual model will answer the following questions

- What are the various driving forces, augmenting the flow of micro-stay?
- What will be the impact of driving forces on aspects such as QOL, Industry growth, and competitive advantage?
- How the objective of Sustainability can be achieved by management of resources

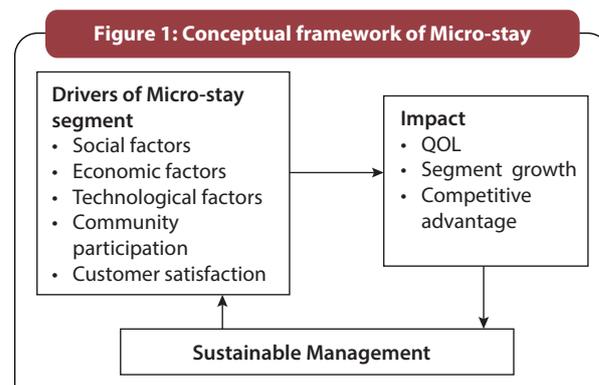
Variables

Dependent variables - Social factors, Economic factors, Technological factors, Community participation, and Customer satisfaction, are the dependent variables considered in this study.

Independent variables - Industry growth, Quality of Life (QOL), competitive advantage and Sustainable Management, are the independent variables considered in this study.

Drivers of Micro-stay segment

Social - Five-star hotel chains in India were the lone ones to practice discriminatory policies against unmarried or same-sex couples, for the longest time. Their excessive prices pose considerable limitations for couples looking for privacy, cost-effectiveness and comfort. There were limited opportunities available for couples looking for privacy for a limited period of time. After exploring demand for this untapped



market, hotel chains like StayUncle, MiStay, LuvStay and BreviStay have explored the options with a myriads of services to offer. Pre-marital sex between agreeing adults, once a taboo in the past, is no longer suspected by the hospitality industry now. Besides couples, the micro-stay segment has targeted frequent travellers, pilgrims or tourists, students who wants to spend few hours, before restarting their journey.

For instance, Brevistay works toward breaking the redundant culture and stereotypes that prevail in society about hotels. Lemon Tree Hotels, Ginger Hotels and Keys Hotels are offering micro-stay directly, through their websites. Other hotel chains like Pride Hotel, Mango Hotel, and Sarovar Hotel are also offering micro-stay services.

Economic – The concept of micro stay facilitates the hotel to utilize the unutilized room and earn extra revenue for the room. In general, the budgeted ARR is projected as 70% to 80% of the published tariff ARR ("Micro Stay", 2017). In addition to that, the sale of rooms at 30% of the published tariff will be added revenue, thereby augmenting the projected ARR. This will not only benefit customers but also the hotel chains. Customers can save 70% of the total cost with short stay hotels when compared to regular hotels that charge on a daily basis.

StayUncle, LuvStay and BreviStay achieved breakeven point, within a few months of their venture, and were profitable ever since. For example StayUncle, earns \$2 million revenue, at an annual rate of 3 – 40 %, and BreviStay achieved a growth rate of 15% (Arora, 2020).

Technological – Technology has brought about a change in hospitality industry by enhancing the service quality, progressing efficiencies, gain competitive advantage, maintaining relationships with customers, and augmenting profitability. Micro-stay hotels also work on the concept of other hotels in terms of technology. Micro-stay rooms is a richly crafted design that makes optimum use of space along with providing latest technology, such as wing chairs, recliners, chaise lounge, bunker bed, wife, charging points etc.

In micro-stay hotels, technology plays an important role in enhancing the guest's connectivity to the appliances in a room. The ability to adjust temperature, lights, and curtains or turn on the TV at the fingertips limits the total movement required in the room. Having large windows and mirrors are general feature across boutique and lifestyle brands, because they create a fantasy of openness to compensate the limited space. Similarly, radiant light fixtures allow guests to switch between different settings to create their ideal milieu. Finally, technology augments how connected a guest is to their room atmosphere.

Community participation – As per Chakraborty, (2019), community participation in tourism industry can influence the knowledge, insights and capabilities among the different members by sharing of ideas, thereby resulting in a robust understanding of the problems and more innovative policies and sustainability. Micro-stay hotels runs on the 'Spontaneous' typology of Community participation. The word 'spontaneous' means an ideal mode of community participation, where people can handle their problems without government's or other external agencies' support. There is an active, informal, direct and authentic participation of people in this model.

Customer satisfaction – Customer satisfaction is the key impetus for any organization to survive in the present competition. Service providers have to comprehend their customer's preferences and devise their services to maximize customer satisfaction (Amin and DilPazil 2015). Micro-stay hotels is an answer to a cost-effective way of adding comfort and very effectively addresses the issue of overpaying for a short stay, by offering hospitality services for a few hours. It offers an exclusive blend of flexibility, adaptability, and affordability. It is not only reliable and secure space but also add to the comfort and satisfaction of guests at every step. Check-in/check-out flexibility is a unique way to personalize the guest's stay, establish integrity, and gain incremental acquisitions.

Product differentiation remains the driving force of customer satisfaction and micro-stay segment is no unusual. For example, StayUncle has introduced Love Kits in their partner hotels, to improve customer satisfaction. It is also foraying to cater to same-sex couples.

Another advantage offered by micro-stay segment is spontaneous booking. According to eHotelier, about 67% of short-term bookings were made within 24 hours notice. Guests are taking advantage of mobile technology to enjoy great deals on these quick stays at local accommodations. For instance, ByHours.com, a booking platform and mobile app; offers a

complete booking solution for visitors, in sets of 3, 6 and 12 hour periods, and also provides users with the handiness of being able to select their own check in/out times.

Impact on micro-stay segment from various forces

Quality of Life (QOL) - Quality of life (QOL) is of great importance both at a micro and macroeconomic level. The factors that directly affects a host community's quality of life are the tourist-host relationship and the progress of the tourist industry as a whole (Bohdanowicz and Zientara, 2009). QOL of an individual can be measured by various means; the most common method is measuring reality of life, such as income, employment opportunities, social factors such as recreation opportunities, family structure, social networks, cultural integrity, and environmental factors (Andereck and Nyaupane, 2011).

In this study, there is focus on factors such as recreation opportunities, cultural integrity, relaxation, and employment opportunities. Leisure travelers and pilgrims are finding micro-stays segment to be convenient, predominantly if they are visiting several destinations on their trip or they are stuck between flights. In today's scenario, travelers want locally made and authentic food and experiences. They want to totally feel connected with the local community and culture experience. Nearly 50% of the global travelers have opted for destination based on the country's culture, custom and people and about 54% want to experience an adventurous holiday.

Micro-stays are particularly suited to business travelers, who generally do not need a room for an entire day, as they will be either busy with meetings or waiting for a long layover. Mostly, all they want is a place where they can take a quick nap, enjoy a shower, dine and attend the meeting. Micro-stay rooms enable the guests to rest and prepare a few hours before an important meeting. Many of the hotels are situated near to airports, railway stations, and public transport and city centers making them perfect for business travelers in need of down time.

Segment growth – Micro-stay hotels segment is on a surge and has experienced a bankable growth of 4-40%. By offering hotel room stays as little as for one to three hours, the demand for micro-stays shows sign of soaring high. Since largely driven by business customers, it promises a significant revenue boost for hoteliers. Micro-stays provide a gap in the market that is independent of the 'home from home' option.

It is well apparent that the advancement in technology has brought a tremendous shift in the way we work, live and travel. The restrictions of working within the

office premises have been pushed far away. Today's hotels will become the offices of the future in the form of extended stay hotels and micro-stay hotels.

Competitive advantage – Various factors determine the competitive advantage of micro-stay segment-

- **Price** - Customers are price sensitive and more prone to deals and feedback than loyalty programs. Budget in the form of price, is a prime factor in the decision-making process for about 70% of the travelers. Micro-stay rooms are economical for guests, due to its availability as per number of hours.
- **Technology** – Technology is a change that can help micro-stay segment to compete in this new marketplace. Micro-stay can use technology to improve their operations and gain competitive advantage. Travelers depend heavily on technology during entire decision-making process, including research, booking and payment.
- **Leverage Existing Amenities** – Micro-stay hotels should adopt a 'blue ocean' concept by broadening the definition of 'guest'. As per this definition, a 'Guest' is one who is experiencing the hotel for any time period and not just spending the night. With the help of this approach, micro-stay segment would be able to target local customers, increase the occupancy rate, increase the customer base and upgrade existing amenities.
- **Foster New Experiences** – Micro-stay hotels can propose their guests the same level of culture and authenticity, as a part of local tradition. Micro-stay hotels should highlight the local culture through every guest point of view.

The hotels should modernize the design of their properties to include local culture and promote social synergy and sustainability. The lobby of the hotels can be reorganized to a place for the guests to socialize and interact with each other and local people. Hotels can also update their menu to incorporate local cuisine and try to enhance interrelations with local artists and businesses.

Conclusion

The Indian hospitality industry has the potential to be the prime driving force behind the growth of India's competitiveness and economy. This can be achieved, only with the support and incentives from the government in both luxury and ultra-luxury segments. The government should lend its support with respect to incentives and taxation to encourage its growth and augment competitive advantage. Similar to big brands, small & mid-sized hotels can also cater to the growing needs of guests, as there are times when the hotel rooms remain vacant for many

days. If micro-stay offer short-stays to guests, it will increase room inventories, make extra profit, keep the rooms occupied and generate additional revenue. Guests will also be benefitted, as it is economical and accessible.

In real sense, the micro-stay hotels do not contend with regular hotels, and stay as niche sector. The benefit of micro-stay segment, in terms of elevated profits, can be felt only by filling the hotel rooms several times in a day, with short term guests.

As the concept of micro-stay is making its mark in Indian hospitality industry, the following challenges can be foreseen for micro-stay hotels -

- ◆ Establishing in areas, where bigger brands are competing with them;
- ◆ Improvement in terms services offered, rather than giving way to just profit maximization.
- ◆ Amalgamation with local culture and community to provide guests with wider spectrum of experience.

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Perceived Risk and Behavioural Responses of the General Public During the COVID -19 Pandemic in the Delhi -NCR

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Manish Tomar**

Shubham Riyal***

Abstract

The aim of the paper is to understand general people's risk and behavior regarding the spread of COVID 19 and to understand the perception of the people in Delhi NCR during the novel Coronavirus and to identify various factors that may contribute to people's well-being. The study employed a multi-analytical approach to test the proposed framework by using modeling structure equation and factor analysis. A quantitative web survey based on approach was conducted to collect the primary data from 177 Delhi NCR respondents. The outcome of the study indicates that there is ample knowledge and correct attitude for the current situation of pandemic, citizens in Delhi NCR to follow required and appropriate activities to keep safe from coronavirus spread. This research is one of its kind to understand the function of various factors that are being adopted and that in its early phase that influence the spread of the novel coronavirus.

Key Words: Attitude, Coronavirus, COVID-19, Fear, Insecurity, Knowledge, Own Practices, Personal Risk.

Introduction

The outbreak of coronavirus was started in Wuhan City, China but very early the outbreak of the virus extended to other cities of China, and the virus travelled to other countries with the help of people who travelled from China to other parts of the world.

After China, initially, an outbreak started in the other 19 countries as well as and countries reported confirmed cases. Most of the people who got infected by the virus have a travel history from china. People who were working in different hospitals were also infected by the virus, including family members of the person who got infected by the virus. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

On January 5, an official in China ruled out the risk of it is a re-emergence of the acute respiratory syndrome (SARS) virus. According to WHO, on January 7, the Chinese authorities announced that they had found a new virus named COVID-19; Novel viruses have been identified as belonging to the same family of viruses that trigger disease from extreme cold to Respiratory Syndrome of the Middle East (MERS-CoV) and Serious Acute Respiratory Syndrome (SARS-CoV).

Director-General of WHO on January 30, 2020,

after receiving advice from international health regulations (IHR) declared the outbreak a public health emergency. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

As per the present data available virus is transmitted from human to human contact. In January 2020, the case of coronavirus was recoded in Kerala and the patient was a student who had currently returned from China (Wuhan); and this marked as the beginning of the COVID19 outbreak in India. Patients often find themselves in solitary confinement. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

WHO came up with new updates and strategies in the response of COVID-19 to help the nations and health workers to tackle the virus? In these strategies a major area of focus is to find infected people, increase the rate of testing, isolation, tracking infected person contacts to tackle the situation and slow down the process of spread of the virus. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

WHO also nudge health authorities of partner countries to take necessary steps for the protection of countries' health care personnel's and community members who are helping nations to tackle the spread

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of the virus and treating infected people by directing them to come into contact and interrupt human transmission of the virus, preventing transmission to health workers, and preventing transmission on the international spread of the virus. These steps are necessary to help and make it easier for health workers to cope with the devastating spread of the virus and deliver the quality of service and save lives in their countries. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

The process of Lockdown started worldwide after situations are not under control and the virus spreads faster than the usual rate. The cases of infected people are increasing globally, lockdown is imposed to suppress the spread of the virus and also stop the community's transfer of the virus.

WHO is working closely with partners and the country's government to ensure effective response and coordination in the response to COVID-19. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

On 25 March 2020, the global humanitarian response plan issued the most responsive health and humanitarian response to prepare for COVID-19. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

On 5 May 2020 a campaign "Save Lives: Clean your hands" launched in response to enhance good hand hygiene for care. A joint monitoring program by WHO/UNICEF estimates that regions lacking hygiene facilities and that are most important not make counties region hubs of virus transmission. (Dr Poonam Khetrpal Singh, WHO Regional Director for South-East Asia)

The Government of India took steps to tackle the virus outbreak in India; screening was started on 21 airports along with 65 major seaports in India. Every citizen who has travelled history to foreign countries, where numbers of cases were high, the government suggested all of them to quarantine them self for 14 days. (WHO, India, Novel Coronavirus (2019-nCoV) situation report)

The government of India closed schools and colleges from 14 March 2020, 10 days later prime minister of India ordered national lockdown-1 on 24 March 2020 for 21 days under the series of restrictions and regulations. As the 1.0 deadline came close to the state government, the advisory committee and the central government agreed to prolong the lockdown-2 by 3 May 2020. But due to a continuous increase in the number of cases in different parts of India, the government of India on 1 May 2020 decided to further extend the date of lockdown-3 until 17 May 2020. The government divided the contaminated zones into Red, Green, Orange, as per the number of cases in those areas, and regulations and relaxation

implied accordingly. On 17 May 2020, the National Disaster Management Authority of India extended the lockdown-4 till 31 May 2020. Yet on 30 May 2020, India's government agreed to prolong the lockdown until 30 June 2020, from then on only for polluted areas and the limits levied have been removed.

Review of Literature

(Vaibhav Bhatnagar et al, 09 Jun 2020) While COVID-19 is already a global concern and the World Health Organization has deemed it to be a pandemic, and this epidemic has spread from China around the globe. Their research shows the descriptive data analysis performed from an Indian perspective for COVID-19 patients. Specific attributes such as age, class, travel experience, form of contact and current status are assessed as per their study. From the analysis so far it can be mentioned that age is not a major factor influencing an individual to be infected by this disorder, usually age attribute is not spread in the current dataset. And as a consequence, there is a major connection between the patients' gender (male and female) and method of transmission (imported from another nation or transmitted from local).

(Samantha Artiga, Apr 07, 2020) In order to identify the effects of COVID-19 across populations and potential health and economic inequalities, detailed research on race and ethnicity would be important. Data by race and ethnicity would also be essential in recognizing the degree to which there are gaps in access to and receipt of health and economic assistance. These details can help shape and plan collaborative responses and rehabilitation events. Although certain states and localities collect data by race and ethnicity, as of early April, the CDC did not report data by race and ethnicity, and these numbers were not widely spread across states. Self-reported tests might have higher outcome precision, but could be susceptible to elevated rates of non-response, and error-sensitive quantitative evidence.

(WebMD, LLC., 2020) Coronaviruses usually do not survive at elevated temperatures and humidity levels as long as they do in warmer, drier environments. Researchers are researching how sweat, cold or sunlight penetration has an impact on how long the latest virus persists on surfaces. Scientists don't know how much virus is required to trigger an infection, either. And if a tiny amount lingers for days on a surface, it might not be enough to render you ill. Keep surfaces clean even though they're not safe in your house. People affected do not have signs but they will also be able to release the infection.

(Neil M Ferguson et al, 2020) Throughout the (unlikely) absence of any preventive mechanisms or random shifts throughout human behavior, they predicted a mortality increase (daily deaths) after

around 3 months to occur. Under these cases, despite an average null hypothesis of 2.4, 81 per cent of the GB and US communities will be contaminated over the course of the outbreak were expected under their study. Given the constraints of surveillance data in both nations, epidemic timings are approximate: The outbreak is expected to be larger in the US than in GB and occur slightly later. The higher mortality rate in GB is attributed to the country's reduced scale and the aging demographic as opposed to the US.

(Henrietta H Fore, 2020) According to their work a global community overcomes the detrimental Pandemic effects would entail focusing on six main fields of policy and intervention. Second, by supplying food and safety gear, we will keep the children safe and well-nourished. Secondly, financing and encouragement for the conservation and upgrading of water, sanitation and hygiene must urgently be given priority. Thirdly, children should know and be linked. Policy funding for non-technology, low technology, and emerging technologies must be sustained. Fourthly, we need to consider parents and relatives as key front-line staff. Fourth, programs need to be planned and provided to reduce and tackle gender-based abuse – including mediation and assistance. Finally, immigrant and migrant children or adolescents impacted by war will not be overlooked.

(Clara Menendez, 2020) They model three potential outcomes of reduced availability of critical maternal and child health resources and elevated waste incidence across 3, 6, and 12 months. They predict that cuts of about 45 percent over 6 months will contribute to 1 157 000 additional deaths of children and 56 700 additional maternal mortality deaths. They report that these estimates will reflect an increase of 9.8–44.7 percent in under-5 deaths each month, and an increase in maternal deaths of 8.3–38.6 percent per month, across the 118 countries included in their study.

(Luca Cabrini, 2020) This research agreed that the usage of a helmet as a non-invasive ventilation device to enhance safety during non-invasive ventilation could be recommended to avoid aerosolization when the helmet is connected with a spring valve to the ventilator without air dispersion; unfortunately, a helmet costs more than most face masks. Accordingly, we suggest taking helmets and removing face masks as the non-invasive breathing device when meeting a patient with an acute respiratory collapse of presumed infectious origin (and, above all, during pandemics).

(Hans Henri P Kluge, 2020) The avoidance and monitoring of NCDs is important according to work performed. It is necessary to prevent NCDs, because given that several incidents of hypertension and diabetes remain undiagnosed, the real size of risk

classes was undoubtedly miscalculated. Communities and community services need to be sensitive both to embrace and handle the heightened threats of individuals with identified NCDs and to demonstrate awareness to the insecurity of broad inhabitants of isolated NCDs and others also at elevated uncertainty.

(Sophie Cousins, 2020) As stated in the article by Sophie Cousins on May 09, 2020 New Zealand is now relaxing its controls and gradually reopening its economy, there are debates over whether it can expand its borders while ensuring that everyone is safe, including vulnerable communities. Australia, which is having equal progress with New Zealand but is not officially circulating the possibility of abolition, has been considering reopening travel between the two countries with its neighbor.

(Nicole M Benson, 2020) As per their findings, best practice for patients in the mental health facility should involve screening all patients for COVID-19 symptoms, especially prior to admission, and a protocol should be implemented to manage patients who develop symptoms. One possible strategy for improving identification could include evaluating all COVID-19 patients at two or more time points before referral to the treatment facility to reduce the possibility of incorrect adverse results for someone of unknown initiation of illness. The availability of serological tests and additional diagnostic or risk information should improve diagnostic certainty and detection, at which point an extension to current protocols is required.

(Tony Kirby, 2020) Several variables affecting the broader ethnic minority population refer to ethnic minority doctors, such as high incidence of asthma which is thought to increase the intensity of COVID-19 outbreak. While ethnic people are on average younger than the white British population, and thus theoretically less vulnerable to infection, higher mortality rates have been reported. The writers of the IFS study noticed, after age change, sex and ethnicity, that death rates were 3.5 times higher for people of black African descent than for white British citizens, whereas death rates were 1.7 times higher for those of black Caribbean and Pakistani descent, respectively.

Objectives of the study

1. To inspect the understanding of risk and the behavioral reaction to Coronavirus.
2. To examine general public perceptions and behaviors during the early phase of Coronavirus in Delhi NCR.
3. To validate the factors

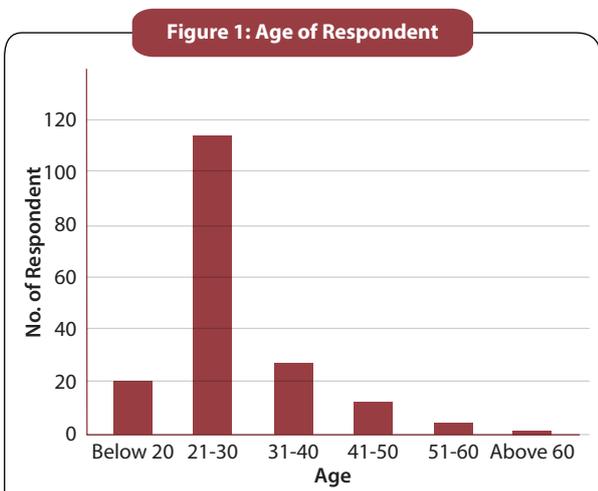
Research Methodology

This work aims to discover the degree of risk awareness and behavioral response with respect to COVID-19, and to investigate the general public's interpretation and behavior during the early Coronavirus 2020 period. A quantitative methodology focused survey was conducted to collect the primary data from 183 respondents in Delhi-NCR and out of which only 178 respondents were selected for the study. The measures were modified from previous literature review research, which shows adequate internal reliability and convergent validity. The suggested version of the study is analyzed by introducing factor analysis, basic linear regression analysis using IBM SPSS Statistics 21 software. Hypotheses were developed and evaluated using regression. A five-point Likert scale was used: 1 suggestion (Strongly agree) and 5 suggestions (Strongly disagree). The

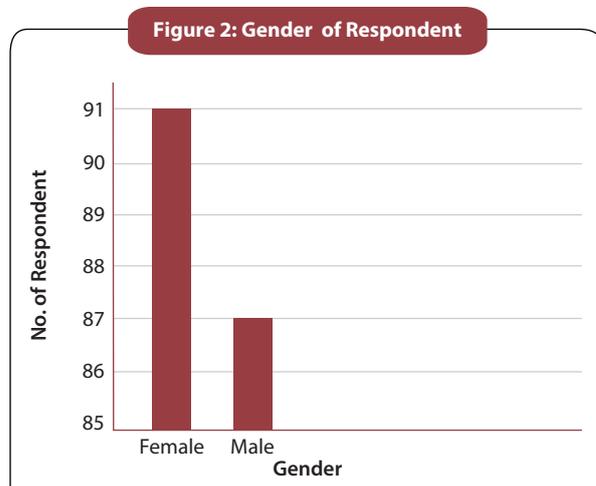
fidelity of the test (Cronbach's α) is surpassing the minimum standard of 0.7 (Hair et al., 2010). Online survey method has been used which has helped to provide a broader coverage. A pilot analysis was carried out on a group of 20 respondents, chosen by non-probabilistic sampling in order to look over the questionnaire's authenticity. The survey indicator was updated and revamped based on the input received during the pilot test process, with slight modifications. Data obtained during the pilot test were not used in the key review.

The online survey was provided to the respondents as a connection via Whatsapp and Gmail's message distribution software, as the target respondents are very involved on both sides and thus find it very handy. The online survey connect was opened for a 30 day period from April till May 2020.

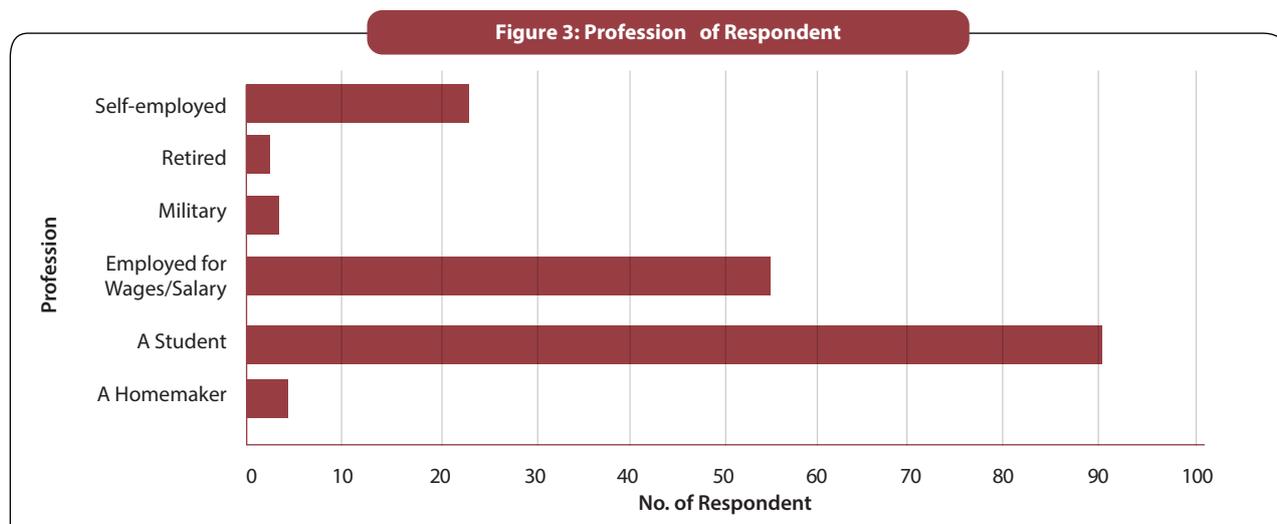
Data Analysis and Interpretations



(source: Research Output)



(source: Research Output)



(source: Research Output)

KMO:

The measure from Kaiser Meyer Olkin verified the sampling adequacy for which the found value was 0.806 in Table 1, that is above the acceptable range of 0.5 (Field 2009). Barlett 's sphericity test, 1754.448 chi-square value at p value 0.000, indicates that the application of factor analysis is appropriate.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.806
Bartlett's Test of Sphericity	Approx. Chi-Square	1754.448	
	df	325	
	Sig.	.000	

Source: Research Output

RELIABILITY:

Reliability Score through Cronbach's alpha was found as .846, and it is quite higher than the standard value of 0.7. Besides this, Reliability analysis of each construct was done to test whether a group of items consistently reflected the construct it is measuring (Field, 2005) shown in Table 2.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.846	26

Source: Research Output

Analysis of factor was carried out to explore interdependent associations across a wide number of things that helped to define specific underlying dimensions. For extracting factors, a method of Principal component analysis was used. Factors with least amount of variance were discarded. As the sample size was 178, factor loadings greater than .45 were accepted. The eight extracted components

together explained 66.087% of variance shown in table 3. The items that clustered on the factors suggested that factor 1 represented Knowledge of the respondents, factor 2 represented Own Practices, factor 3 represented Personal Risk, factor 4 represented Insecurity, factor 5 represented Fear, and factor 6 represented Attitude. The last two factors were discarded as they had very few statements.

TOTAL VARIANCE TABLE:

Table 3: Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.887	26.488	26.488	6.887	26.488	26.488	3.665	14.095	14.095
2	2.270	8.730	35.218	2.270	8.730	35.218	2.423	9.319	23.41431.70
3	1.946	7.485	42.703	1.946	7.485	42.703	2.155	8.290	4
4	1.459	5.611	48.314	1.459	5.611	48.314	2.064	7.939	39.644
5	1.362	5.239	53.552	1.362	5.239	53.552	1.972	7.586	47.229
6	1.135	4.367	57.919	1.135	4.367	57.919	1.798	6.917	54.146
7	1.124	4.321	62.241	1.124	4.321	62.241	1.690	6.502	60.648
8	1.000	3.847	66.087	1.000	3.847	66.087	1.414	5.439	66.087
9	.904	3.478	69.565						
10	.862	3.317	72.882						
11	.729	2.802	75.684						
12	.723	2.781	78.464						
13	.655	2.520	80.984						
14	.622	2.394	83.377						
15	.579	2.228	85.606						
16	.510	1.960	87.565						
17	.472	1.814	89.380						
18	.462	1.776	91.155						

19	.401	1.542	92.697						
20	.376	1.445	94.142						
21	.332	1.276	95.418						
22	.287	1.104	96.523						
23	.282	1.085	97.608						
24	.259	.998	98.606						
25	.202	.778	99.384						
26	.160	.616	100.000						

Extraction Method: Principal Component Analysis.
 (Source: Research Output)

Table 4: Rotated Component Matrix Table

	Component							
	1	2	3	4	5	5	6	8
B1	.618							
B2	.759							
B3	.775							
B4	.527		.525					
B5	.608							
B6	.699							
B7						.866		
B8						.815		
B9								
B10	.534		.537					
B11								.525
B12		.461						
B13								
B14		.414					.786	
B15		.826						
B16		.559						
B17		.577					.414	
B18					.907			
B19					.937			
B20				.723				
B21				.686				
B22								.824
B23				.519				
B24			.488					
B25			.718					
B26			.762					

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 8 iterations.
 (Source: Research Output)

Table5: Summary of Results: Factor Analysis and Reliability Statistics

Factors		statements	egin values	percentage of variance	cronbach's alpha	no. of items
KNOWLEDGE	B1	1. Are you aware of the novel coronavirus outbreak?	.618	26.488	0.813	6
	B2	2. The new respiratory Syndrome is caused by COVID - 19 Virus	.759	8.73		
	B3	3. The new Respiratory Illness can be transmitted by human-to-human transmission	.775	7.485		
	B4	4. The main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and myalgia	.527	5.611		
	B5	5. Currently there is no effective cure for COVID-2019, but early symptomatic and supportive treatment can help most patients recover from the infection.	.608	5.239		
OWN PRACTICES	B6	6. People who have contact with someone infected with the COVID-19 virus should be immediately isolated in a proper place. In general, the observation period is 14 days	.699	4.367	0.800	5
	B12	12. I practice social distancing deliberately	.461	2.781		
	B14	14. Avoiding touching your eyes, nose, and mouth with unwashed hands	.414	2.394		
PERSONAL RISK	B15	15. In recent days, I have worn a mask when leaving home?	.826	2.228		
	B16	16. Seek medical advice with the onset of COVID 19 symptoms	.559	1.96		
	B17	17. Avoiding touching your eyes, nose, and mouth with unwashed hands	.577	1.814		
	B9	9. Do you believe that the virus is life threatening	.484	3.478		
	B24	24. Staying remote could make you less valuable, especially in a recessionary environment.	.488	0.998		
	B25	25. Millions of people around the world have lost their jobs due to the current Covid-19 crisis	.718	0.778		
	B26	26. I may face Financial / job-related hardship due to COVID 19 crisis	.762	0.616		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

(Source: Research Output)

Table5: Summary of Results: Factor Analysis and Reliability Statistics

Factors		statements	egin values	percentage of variance	cronbach's alpha	no. of items
INSECURITY	B10	10. I will stock up and stay indoors	.537	3.317	0.713	4
	B20	20. COVID19 will have a bigger impact on the economy than the spread of Severe Acute Respiratory in 2003	.723	1.445		
	B21	21. There lies a huge risk : One person can pass on the infection to three which would become nine, then 27 and then 729 all within hours or days	.686	1.276		
	B23	23. Life is at risk of health workers	.519	1.085		
FEAR	B18	18. Do you agree that you might become infected with COVID-19 in the near future?	.907	1.776	0.866	2
	B19	19. Do you agree that people in your family and friends might become infected with COVID-19 in the near future?	.937	1.542		
ATTITUDE	B7	7. Do you agree that COVID-19 will finally be successfully controlled?	.866	4.321	0.726	2
	B8	8. Do you have confidence that India will win the battle against the COVID-19 virus very soon?	.815	3.847		
	B13	13. People who have been exposed to the new coronavirus and who are at risk for coming down with COVID-19 might practice self-quarantine.	.786	2.52		1
	B11	11. Today Something that makes me feel helpless is COVID 19	.525	2.802		2
	B22	22. Older adults or those with compromised immune systems are at a higher risk	.824	1.104		

(Source: Researchers compilation)

Suggestions

Because of pandemic we have all witnessed things that were unforeseen and anything we were never been prepared with, this has forced us all to get to the point where we are encountering something that is totally different from all the other personnel concerns, which is why it became more and more crucial to put their suggestions into the frame from all the imaginative ideas from all other individuals, like

Government should advocate even more the use of yoga and Ayurveda for corona prevention and cure and also inspire other people using social media to dispel misconceptions about yoga and Ayurveda.

Corona time can be used to rejuvenate local communities since labor has shifted to rural areas, which can also be aimed at reducing the burden of population and environmental devastation on metropolitan cities.

With the aid of daily visits to locations, such as general stores, and the phone numbers associated with their arogyasethu app along with UPI codes, a whole new database should be generated, we can monitor whether infected individuals are properly following their 14-day quarantine and remain isolated after returning from abroad.

Conclusions, Limitations and Managerial Implications

The announced pandemic related to the latest epidemic of Coronavirus has driven the planet into a public health emergency. The number of reported cases is increasingly growing in the world where INDIA is rising in the list for the same with higher and higher numbers of cases by breaking its own record of verified cases regularly. This is important to note that not only is the lockout not sufficient to stop the transmission of the novel coronavirus, but it is often vital for people to encourage themselves to make some improvements in behavior. According to the research - knowledge is important in order to take realistic steps that can reduce the risk of coronavirus. After having immense knowledge of all the facts in the fight against the novel coronavirus, people will be able to change their perception and attitude toward the covid19 and that can end up lowering people's level of fear and insecurity for the same. Since the pandemic has often caused citizens to think how long they should be able to sustain the quality of life they have or the uncertainty in respect to their job situation. There is definitely also a need for more work to learn the exact process that citizens will adopt and to achieve more reliable data respondents from other states of the country should be adopted.

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Digital Disruption in the Insurance Industry- Opportunities & Challenges

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Abstract

Banking sector has been ahead of insurance sector in terms of adoption of digital technologies to deliver better service to customers. However, in the last few years, digital wave has been sweeping the insurance sector too. Traditional insurers are now forced to adopt digital means to offer solutions to customer's needs. Insurance business is no longer a stand-alone business. It needs strategic alliances between insurers, banks, technology providers and insurtech firms. Selling of insurance online is becoming common now and technology is being leveraged to deliver better customer service. Introduction of sachet or context based insurance to attract millennials to insurance covers has been possible due to technological advances. Digital platforms offer a seamless customer experience shaping customer satisfaction and loyalty. However, it should be remembered that insurance as a business is known to guzzle capital with stringent regulatory norms and high client acquisition costs. This research is significant because it traces the technology-enabled disruptions in insurance sector and the resultant challenges and opportunities for the sector as a whole. The attempt here is to understand the changes in the insurance business model resulting due to Digitalization and how automation can improve processes like insurance underwriting, new product development and claims processing. The acceleration of digital adoption across consumers and businesses has increased the velocity of change in the insurance sector that is now attempting to amplify customer experience. Insurance industry is in the cusp of a major digital revolution that presents challenges like data management and privacy, data breaches and cyber risks; need to have a disaster response plan and changing consumer preferences. It remains to be seen whether digitalization will lead to an increase in the market penetration of insurance.

Keywords Artificial Intelligence, Cyber threats, Data Security, Digitalization, Insurance, Risks

Introduction

The insurance industry has been in the throes of a massive revolution. Now insurance policies can be sold through an app whereas years ago sales of insurance policies were highly dependent on the ubiquitous agent. A report in the Economic Times (29.12.20) highlights the fact that aggregate sum assured of Indian lives is up from Rs. 7.34 lakh crore in 2001 to Rs.173 lakh crore

in 2020. Two decades ago there were only a few products – but now after the insurance sector has opened up, the number of products is more than 250. The size of the general insurance industry is Rs.1.69 lakh crore. Private players who entered the Indian insurance market after 2000 introduced products different from conventional products.

Over 500 million Indians are covered under life and health insurance. Earlier the driving force for an individual to buy insurance was the benefit available under Section 80C of the Income Tax Act. Since then,

the focus has gradually moved to a savings goal with protection as the main theme for attracting customers.

Privatisation was a decision by the government to attract foreign capital in the insurance sector. This was despite misgivings about such a move. However, the industry has only recently realized that a greater consumer focus is needed to sustain the business model. Building life-long and enduring relationships with consumers is no longer an option. Digitalization has enabled the marketing and selling process but it has also sharpened the focus on transparency and accountability of the sector as a whole. Millennial consumers are smarter and are loathe to taking up investments that are long term. This has necessitated a massive shift from the traditional “push” approach to “pull” approach. Younger consumers can discern the differences between “saving” and “protection”.

The insurance business model is a different one from other businesses. Consumers pay in advance

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(premium) for protection against risks that may or may not occur. It is but natural that in an era marked by economic recessions and lack of job security, consumers would want to invest their hard earned money elsewhere rather than park their money in schemes that may not yield low-hanging fruits. The nomenclature used by the industry also raises eyebrows. For example- the amount spent on claims is considered as a loss by the insurance industry. In the last few years, service quality has proved to be a key differentiator in the sector.

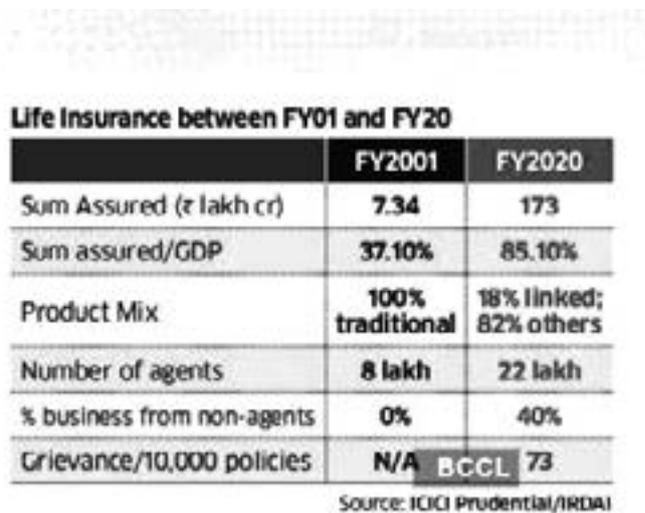
Earlier, insurance industry had to pay huge commissions to drive sales but Digitalization has ensured greater operational efficiency and a level-paying field among players. Digitalization is enabling the industry to deal with changing customer preferences and lifestyles and offer differentiated products and services. De-tariffing of premiums has resulted in cut-throat competition among the players with the private players demonstrating an extraordinary level of aggressiveness to acquire business at all costs.

It also needs to be emphasized here that the insurance industry's fortunes have been adversely affected due to rampant mis-selling. Agents, enamored by attractive commissions, seldom bear customer interests in mind and end up selling those policies to customers that would fetch them higher commissions. Banks as distribution channels for

insurance have not helped matters because cases of mis-selling have emerged from banks as well. Target-driven bank officials have often given the wrong advice to customers and in the process the insurance industry has suffered a huge trust deficit. The introduction of third party administrators in health insurance was

supposed to be a move that would facilitate better claims handling but matters have been exacerbated with genuine claims being denied/ delayed. A section of the population has even moved to self-insurance rather than relying on the sector. This is a grave concern that could pose a threat to the sector in the future.

It is at this juncture that the insurance industry, taking a leaf from the digital experience of banks, has decided to embrace digitalization to boost the business prospects. To some extent, this move has yielded positive results in a few years. But is the industry really geared to use artificial intelligence, automation, and big data analytics and cloud computing is a moot point. The industry needs a course correction along with strategic thinking to earn customer trust. It is pertinent to note that digital technologies are not like magic wands that can decimate all the problems facing the insurance sector in one go. At best, they are business enablers. To consider digital resources as vanguard for the sector may sound too preposterous.



Impact of pandemic on insurance industry

The pandemic has highlighted the need for individuals to fight fear and be more positive in life. Coping with the new normal is the challenge now. Axa emerging survey of risks conducted in early 2019 listed pandemic as the 8th topmost risk. The pandemic didn't figure in top 5 risks. But by end of

2019, the pandemic became the top most risk. It is a single event that has caused large scale impact. Lloyds of London has estimated that insurance industry will suffer \$ 203 billion in losses from the pandemic. The projected losses include about \$ 107 billion from underwriting claims with the balance losses from insurers' investment portfolios.

The pandemic has affected all the sectors. Insurance business got affected during the lockdown like all other businesses. Consumers began deferring their purchasing decisions driven by

reduced spending power due to job losses and salary cuts. However, on the positive side, there was a spike in term insurance and health insurance.

The overall penetration of insurance in India is 3.69 % with life insurance having a share of 2.74% and nonlife insurance having a mere share of 0.97%. India has a share of 1.92% of the global premium. This is low compared to the size of India and considering our country's financial strength.

Today, gradually the world is coming out of the pandemic shock. Pandemic has given a push to the insurance sector. Purchasing insurance online wasn't very popular earlier but the unprecedented situation across the globe now has made it inevitable for people to purchase insurance online. However, it is difficult to gauge the impact. The slowdown in industrial activity has affected the growth of insurance industry.

The facility of making digital payments has benefited the insurance sector. There is acceleration of opportunities for digital engagement and digital delivery of insurance services. In terms of customer adoption, in addition to the early majority, the late majority and laggards have joined the bandwagon.

Disruption was always from the front end in insurance. During the pandemic, operational processes had to be accessed remotely. Insurance companies were forced to operate in the crisis management mode as insurance is categorized as one of the essential services. While some insurance firms had equipped themselves to meet these challenges, others were not.

The insurance sector faced challenges like setting up a robust IT network, having a digitally competent workforce and ensuring data security. Breach of data has a deadly impact on the future of the insurance sector. Scaling the operations during the pandemic proved to be another humongous challenge. Direct intermediaries couldn't visit customers and business was impacted. Another challenge was to shift the mindset of customers to embrace technology for purchasing insurance policy and processing claims. Insurers have to be agile to deliver technology-enabled customer service. While it was in the IT and IT-enabled sector that remote working from home was a distinct possibility, today the pandemic has thrown open the doors of opportunities for all organizations to facilitate work-from-home options for their employees. Since insurance transactions are of a commercial nature, data security has become the Holy Grail with a fault-tolerant ecosystem becoming mandatory.

Review of Literature

Insurance business models are hugely impacted by digital transformation. Digital technologies are interdependent (Eckert & Osterrieder, 2020) and can support new insurance products and services (Kostyaeva & Chernyakov, 2020) that can be of value to SMEs for protection against risks and threats. Additionally, innovative digital solutions can be used to improve operational efficiency of insurers (Pisoni, 2020).

Digitalization can also enhance customer experience, improve business processes and can prove to be a source of competitive advantage for an insurance firm. Technology can narrow the information asymmetry gap that exists between insurer and insured which in turn can reduce losses (Eling & Lehmann, 2018).

Digital advances can lead to better choices, lower prices and improve service levels. Underwriting, customer service, claims management – all these processes can be improved with digital technologies propelling the market share of the insurer northward. Customers are desirous of insurance products that are simple, transparent and flexible. An app called Trov is available in Australia. A customer can snap a picture of the item that he wants to insure and upload it in the app. The app would present the customer with an offer. If customer accepts the offer, the contract for insuring that object (for even a period as short as 1 month) comes into force. Today there is a greater acknowledgement of the fact that digital adoption must be across the entire value chain to improve the customer journey (Naujoks, Mueller & Kotalakidis, 2017). Insurers should invest in resources to understand digital trends and contemplate about suitable interventions in the value chain (Pisoni, 2020).

The moment of truth in insurance is generally associated with claims administration. Digitalization will reduce the time between reporting and settling the claims. The use of Internet of Things can enable an insurer to resort to claim prevention averting a potential situation of loss (Naujoks, Mueller & Kotalakidis, 2017).

Opportunities for increasing revenues and reducing costs abound due to digitalization of insurance. Even though insurers tend to deploy technology to introduce new products and aid distribution, it is underwriting and claims management that need the greatest attention. Machine learning, advanced analytics and Internet of Things can have a massive impact on the latter. As costs savings increase, these can be used to build reserves that can fund future digitalization resulting in a virtuous cycle of positive change (Naujoks, Mueller & Kotalakidis, 2017).

The focus of the insurance sector has shifted to managing a complex ecosystem of companies wishing to be a part of the end-to-end customer journey. This has triggered the need for joint alliances between traditional insurers, banks, fintech firms and technology solution providers. Insurers have to now respond to the challenges of digitalization (Cebulsky et al, 2018).

Digitalization in insurance is characterized by insurers adopting change at a breakneck speed. Digital innovations will need new regulations. Technology-based insurance services are leading to market breakthroughs. Insurance regulators have to maintain a balance between market support and consumer protection (Chumaida & Sabrie, 2018).

Customer-focused digital transformation can fight frauds and elevate the customer experience. The crucial aspect of digitalization is the selection of the right technologies and training employees to deliver value-added services to customers (Naujoks, Mueller & Kotalakidis, 2017).

Insurers can maintain their competitive position in the market through effective use of technology. More and more companies are selling insurance policies online leading to a surge in volume of policies sold. In Russia, it has become mandatory to sell motor insurance policies online (Mustafina et al, 2020)

Insurers are integrating the knowledge of all kinds of customers to offer digital solutions (Bohnert et al, 2019). There has been a question about the assessments of InsurTech in a structured fashion. Insurtech can lead to value creation and disruption in market by alignment of their transformational capabilities with the demands of the market (Stoekli et al, 2018).

Digital technologies such as big data analytics, robo advisors, and mobile distribution models or block chain are being used by InsurTechs challenging the processes and practices of traditional insurers. Digitalization in insurance needs exploration from an inter-organizational perspective to understand the nature of innovations (Greineder et al, 2020).

Digital technologies have also been introduced in agricultural insurance in Russia. These are used at various customer touch points (Zaitseva et al, 2020). A study of 41 European insurers for the time period from 2007 to 2017 revealed a positive link between digital efforts and business performance (Bohnert et al, 2019). Digitalization has been associated with increased profitability of Russian companies (Mustafina et al, 2020)

The Covid-19 has adversely impacted insurance markets with decrease in the growth of premium income, insurance density and insurance depth.

Therefore, there is a need to improve the level of social security and reduce the impact of pandemic on insurance market through Digitalization (Wang et al, 2020).

Sachet Insurance – a product of digitalization of insurance

Insurers and intermediaries are offering life and non-life covers with small premiums via various digital channels. Covers for vector-borne diseases, term plans, fitness insurance and dengue insurance are some of the sachet insurance covers. However, such covers cannot be a substitute for long term life insurance or health insurance covers.

Sachet covers are non-comprehensive and focus on a particular need of the customer with a low premium and lower cover. These products are sold through digital channels and are a major attraction for millennials. There are no major underwriting requirements and paper work is minimal. Besides travel insurance, covers are offered for home protection too. ICICI Lombard and Mobikwik partnered to offer cyber insurance cover for Rs 50000 to protect consumers against online frauds. Such small covers act as supplement to long term coverage. These policies are sold on group platforms and long term availability and pricing of such covers will continue to remain a grey area.

The insurance that a passenger gets with the train ticket on IRCTC website is an example of bite-size insurance / sachet insurance. The current focus is on non-life insurance products. The sum insured depends on the premium. A premium of up to Rs 1000 per year can be called as sachet insurance. These policies are targeted towards millennials as a starting point so that they get introduced to the concept of insurance. Insufficient data to establish claim settlement ratio remains a challenge.

Millennials demand instant gratification from products and services – so they remain oblivious to the benefits of purchasing insurance products that are generally long term. Technology is being leveraged to introduce innovative insurance products with a smaller ticket size.

Such context-based insurance products are becoming popular even as this trend is encouraging insurance companies and intermediaries to innovate faster by leveraging artificial intelligence and big data analytics. This can enable better understanding of consumer behavior and faster settlement of claims. With millennials accounting for nearly half the working-age populace in India, they remain the driving force for the market for sachet insurance.

Thus, a review of the literature has highlighted the need for digitalization of insurance as there are ample business opportunities for the sector. However, these opportunities are not bereft of challenges associated with the expansion of digital footprint. Sachet insurance is clearly an outcome arising out of such opportunities.

Research Objectives

1. To identify the emerging opportunities for insurance sector arising from Digitalization.
2. To evaluate the challenges posed by digitalization of insurance sector.

The study is based on secondary data only which is collected from various sources and the sources of the same has been acknowledged accordingly.

Initiatives by the regulator

Innovation is about creating something new – a new product or process or creating a new need. Measuring the success of innovation through suitable metrics is essential. IRDA has taken steps during the pandemic to accelerate innovation.

In 2019, IRDA released a framework for innovative processes through sandbox approach which pertains to testing new business models and new processes. This also involves introduction of new products, new processes, improvements in underwriting and claim services. Regulatory sandbox refers to live testing of new products in a controlled environment. IRDA has advised that an applicant should have a net worth of Rs 10 lakh to file products under the regulatory sandbox.

Increasing the penetration of tailor made products and services will need simpler processes, terms and conditions and faster KYC along with simple documentation. The pandemic has thrown open opportunities for business interruption cover, cover for job losses and cover for dealing with cyber risks. Over-the-counter products are also being demanded in the market. Using one time password options, purchase of health insurance cover as well as other nonlife covers have become easier for prospective policyholders. The regulator has clarified that it is no longer mandatory to send a hard copy of the policy document – policy documents can be sent to insured through Email.

Wellness and preventive health care policies have started rewarding policyholders for following a healthy life style. IRDA has advised inclusion of cost of tele medicine while providing health insurance covers. Exploring the use of expensive technologies like artificial intelligence and drones is still considered way too premature.

IRDA has established working groups/ working committees to give a thrust to research and development in insurance. New initiatives by IRDA include innovation and giving a greater leeway to insurers and agents to take drastic steps to expand business and adopt a scalable approach.

Guidelines and rules about restricted practices are being offered by the regulator. There is a second round of regulations pertaining to sand box [September 15 – October 14 2020]. Technology leveraged with Internet of Things, use of wearable devices to monitor health, telematics and inclusion of cost of telemedicine are some of the measures that are being proposed.

Findings and Discussions

Selling an insurance policy is easy but servicing is a difficult proposition. Selling won't work unless the insurance firm scales up claims processing and makes the entire process more robust. Therefore, selling, service and operational infrastructure must go hand in hand.

Today, millennials who purchase insurance are agile in voicing their opinions on social media. If service is shoddy, this can lead to negative perception or word of mouth. Businesses (including insurers) are therefore compelled to protect their reputation. The value of good will is not measurable but important. If enough measures aren't built in to protect the reputation, brand equity can get eroded.

Digitalization is the only solution to address the decreasing levels of insurance penetration. 60% of India's population comprises suburban dwellers. Opening new offices in rural and mofussil

areas and in smaller towns can be expensive. There is a need to invest in technology to increase sales and increase the levels of customer service and scale up operations. Finding out new needs of customers has to be part of the agenda of every insurance organization. There is a tendency of consumers comparing insurance products with investment options. This information asymmetry needs to be addressed through increased awareness about the need for insurance cover.

Insurers must plan ahead to scale up the business through various channels. Going forward, sachet insurance will evolve. Customers will have a greater choice and premiums will be affordable. Sachet products will become popular due to customization, instant purchase options and absence of paper work. They can also be sold in huge volumes.

However, research in insurance needs to improve. Unlike the West, India doesn't have a market for specialty insurance products. But a market can open

up in the future. Consumer education about risk protection is essential along with the message that insurance is not an investment tool. Only through better customer service can the sector grow in the future.

For example – premium for home insurance is low but people don't buy. OTC products will become popular in the future. Experimentation will give confidence about the success of small ticket size products. Under sand box technology, companies are filing for sachet products. Motor insurance will increasingly rely on telematics that can monitor driver behavior. Misselling is the cause of malaise that has enveloped insurance. In 2019, there were 40000 frauds in India. When IRDA was formed in 2002, they had stressed on insurance education but over the years, the emphasis on training has got diluted.

With the use of robotics and automation, claims management processes will mature. Complete digital transformation of insurance services is the reality. For the technology firms, this is a golden period.

Suggestions

Use of IT to ensure a faster claim processing to consumers and delivering a contactless and touchless experience has become inevitable today. Settling the claims fast through quick assessment of loss verified by surveyor is important. During the lockdown, non-life sector suffered losses as physical inspection could not be conducted. However, going forward, loss assessments and claim settlements can be done through videos/ live streaming. Verification can be done when consumers upload videos. Technology has to be in-built in the system. Machine learning and artificial intelligence can be deployed to ensure simplification/ faster processing of claims. This can be supported by capturing data in basic format. The customer journey has to be improved through a seamless claims experience. Automation can lead to simplification of claims settling processes. Automation can also lead to reduced paperwork and reduced time lines to settle claims.

Cyber security threats and data privacy threats are the new risks. Data security continues to be a big challenge. Greater reliance on technology has resulted in increased risks of cyber threats and data breaches. Insurance industry can emerge a winner by offering solutions for such risks.

Financial literacy continues to be low in India. Amazon and Acko General joined hands to sell two-wheeler/ four-wheeler insurance in a matter of few minutes. As customer preferences can change, one cannot give too much time to the customer to think. The more faster and easier the process, greater is the satisfaction of customers. Digital channels can

be used for lead generation for cross selling and up selling. As people consume digital media more and more, sachet insurances are becoming popular. For example – if you buy a new mobile phone, you can buy an insurance cover for as low as Rs 300. If we ride Ola cabs, we can opt for insurance cover for as low as Rs 5 or Rs 10.

Often, agents do not have knowledge about variety of products sold by an insurance company. Insurance aggregators were active during the pandemic. Customers can visit an insurance website and compare prices of various schemes offered by different insurers. Traditional media was used for direct as well as indirect sales. Non-traditional media is able to convert users. Online market places offer integrated platforms to elevate the customer experience. Price tags are becoming important too. An agent might attempt to sell a policy worth Rs 250000 or Rs 35000 but customers especially Gen Y may be more comfortable with small ticket size premiums. Even though some companies like Birla and Religare offer online purchase of their policies through their websites, the web aggregators offer customers a plethora of choices. There are 23 insurance web aggregators in India. IRDA guidelines have restricted the amount that web aggregators can charge from insurers.

The entire scenario is evolving. Use of digital media has led to increase in the number of agents, broking companies and web aggregators. Sale of small ticket size policies by Amazon has resulted in benefits for customers who are now spoilt for choice. Thus, the scope of providing insurance covers can be expanded whenever consumers buy home appliances. IRDA is now allowing such covers to be sold.

Conclusion

The experiences of the insurance industry during the pandemic can shape the strategies of the sector to develop a sustainable model. Once the vaccine is officially released by the Government, the present pandemic will come to an end. However, the risk of another pandemic rearing its ugly head in the future cannot be completely ruled out. Technology companies have to scale up their operations and support the insurance industry. Remote technologies will be needed and companies must plan to acquire such technologies. Customer's personalized experience will become de rigueur for insurance industry. The digital front end will enable this as well as the provision of offering bundled solutions to customers. What is needed is a holistic approach with the policy holder's needs occupying center stage. A combination of human and digital

intervention across all customer touch points in the insurance value chain is essential. This will lead

insurance organisations to ensure that balance exists between operational efficiency and satisfaction of consumer needs through personalization.

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Book Review

Good Economics for Hard Times

By Abhijit V. Banerjee, Esther Duflo

Published by PublicAffairs, New York

Published in –2019,

Pages: 432

Language: English

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Authors' profile

Abhijit Banerjee is the Ford Foundation International Professor of Economics at MIT and the author of *Poor Economics*. He has been named as one of *Foreign Policy* magazine's top 100 global thinkers and has served on the U.N. Secretary-General's panel on the Post-2015 Development Agenda.

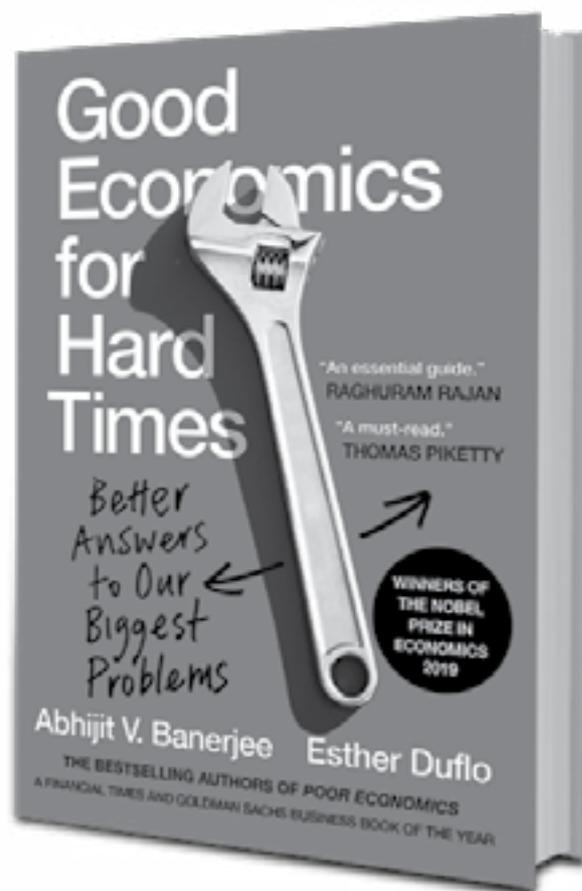
Esther Duflo is the Abdul Latif Jameel Professor of Poverty Alleviation and Development Economics in the Department of Economics at the Massachusetts Institute of Technology and a co-founder and co-director of the Abdul Latif Jameel Poverty Action Lab (J-PAL).

Appreciation and Critique

The authors excel at joining the dots from numerous theoretical and empirical studies. The book is divided into nine survey-based wide range chapters on some of the leading issues of today's "hard times", providing up-to-date discussions of some of the latest literature. All the topics are viewed from the perspective of Macro Economics.

Chapter 1 is quiet interesting as it discusses the IGM Booth panel results. It also explains the YouGov poll which gives a clear picture as to what the general public thinks about Economists around the world. It is very surprising but true that Economists were rated the lowest when compared with a large number of professions in the world. "A woman hears from her doctor that she has only half a year to live. The doctor advises her to marry an economist and move to South Dakota. WOMAN: "Will this cure my illness?" DOCTOR: "No, but the half year will seem pretty long."

Chapter 2 expands on immigration. "There's no credible evidence that even relatively large inflows of low-skilled migrants hurt the local population", it states. Why doesn't the labor market fit the standard story? The authors remind us that the migrants are not just workers; they're also consumers. This helps



in job creation and typically jobs for other low-skilled people. "The promise of a reliable supply of low-wage workers makes it less attractive to adopt labor-saving technologies." The comforts of home and family ties issues are also emphasized beautifully here. They present a positive picture which makes us think, while denying that there has been a very brisk and unprecedented change in many countries as the composition of the population is concerned. This holds true in today's world to a little extent only. People, in search of reputation, good work and above all money, are always ready to move.

Chapter 3, the pains from trade, starts with basic theory of Ricardo's comparative advantage, but later it also talks about Stolper-Samuelson theorem on the effects of trade on factor income along with emphasizing on the anti-Trump policies to discourage trade in US. The job of world trade organization with quantitative data is supported and described along with the ATA (US based NGO program) and TAA (trade adjustment assistance) programs. Chinese trade policy and online services of Amazon is the key highlight of the chapter. 'Amazon trying to capture the world market' (discussing Egypt carpet and rug business) story makes you feel like you're reading a marketing issue rather than Economics. Some basics of macroeconomics are discussed with profound simplicity

Chapter 4 - Likes, wants and needs is definitely a favorite topic of every Economist but here author was not able to do it justice. This chapter was more concerned with social issues like cast system in all nations, be it India (dalits and efforts of Gandhiji) or the US (black lives matter or about sharing a golf game with African Americans). Robbers cave is a new experimental game to understand how preference changes with time. Facebook and twitter along with the validation of life without technology makes you feel like going through something to which we all agree but never seem to adopt in our life. The way preferences are decided and discussed in the book, this chapter's name seems to be at fault.

Chapter 5 (Growth) takes us from the Solow model with diminishing returns to Romer's views on overflow effects from innovation, which can trounce diminishing returns for an economy as a whole. How the Silicon Valley, the multi-billion dollar technological hub, able to grow rich every day with every new investments makes you feel that a variant of Romer's theory holds good. Cell phones to banks from Europe to Asia, the authors assert, are busy chasing growth.

Chapter 6, which highlights climate change, is a little stodgy but ends with a loud and clear message for the reader. The Negative impact of pollution and uses of LEDs, carbon credits are discussed in relation with an emphasis on south Asian countries. The way society is repaying for the negative deeds to the nature in terms of climate variation is an afterthought.

Chapter 7- A player piano, one that plays on its own, is a great way to describe the advancement of technology around the globe. The authors try to make a case against technological progress, defending the antagonist that destroyed machines in the Victorian era because they were "killing jobs". Not involving in great discussion and the swift movement from innovative technology of making tumami burger to the taxes which society pays was appreciable. The governments are portrayed as noble forces for good, who, alongside a bunch of well-intentioned bureaucrats, would solve all the problems in the world if we just let them design the right policies for every issue. Government's existence is supported irrespective of the type of economic system.

Chapter 8 is a hard core discussion of taxes and its implication and effects on society. This conversation is a useful response to the chimerical claims of many conservatives about the huge growth potential of cutting taxes. Some of the evidence they present for these propositions is high quality. Banerjee and Duflo show that even the iconic edition of tax cuts, enacted under Ronald Reagan, did little if anything to accelerate growth.

But don't high taxes on wealthy people reduce the incentive to work hard and create new jobs? No evidence found that people at the top of the income distribution change their behavior in ways that affect the overall rate of economic growth. This has given

even more reason to advocate for a tax system in which the rich pay more taxes today.

Chapter 9, last but lengthy, is about social policy. For developing countries, the authors support "Universal Ultra basic Income" (UUBI), Justifying the work of India's National Rural Employment Guarantee Act (NREGA), transfer of cash subsidies to bank accounts are discussed in details along with the UUBI for the USA. The book states that "According to a Pew Research Center study, 47 percent of Americans are in favor of a government policy offering all Americans a guaranteed income that would meet their basic needs in case robots become capable of doing most human jobs. Among Democrats, 77 percent are in favor. Among Republicans, 38 percent are in favor. Sixty-five percent of Democrats (but only 30 percent of Republicans) say the government has a responsibility to help displaced workers, even if it involves raising taxes." However, this inference is maliciously misleading as the research itself states that Americans are very much opposed to a guaranteed income(18% people) than they are to saving human jobs by restricting usage of robots to hazardous industries(3% people), which was the subject matter of the study! By not disclosing that the survey givers were six times more opposed to this and putting forth selective facts only, the Authors are guilty of deceiving the trusty readers. Subsidizing the common goods, taking the example of Gold stage advantage card is justified with middle class mortality. The creator remains a little unfathomable in that respect.

This book is more of a political guide than a serious economic analysis of the important issues. Usage of extensive data to zoom out and show us a wider view of the human dynamics is the USP of the book.

Good description on problems and issues but lack of future plans to tackle the issues. The most impressive theory in this book was about the gap between rich and poor, the extended gap. The book shows that some technologies such as robotics makes the rich richer, and the poor poorer. Economics is portrayed as a subject immensely needed in today's world dominated by people who smother our value systems through use of electoral politics and try to obscure our views of the world.

It had nothing new to offer. Examples quoted are not new for the reader as the other books also share the same. Figuring out how to deal with today's critical economic problems is perhaps the great challenge of our time but the reading gives no new ideas. The book does not contribute solutions for real problems and how can they be implemented in a broad application. Core competence of the book is macroeconomic issues portrayed as a collection of different studies and the reasons to either accept or reject the work.

Dr. Shikha Ojha

Book Review

Social Entrepreneurship in India Quarter Idealism and A pound of pragmatism

by Dr Madhur Shukla

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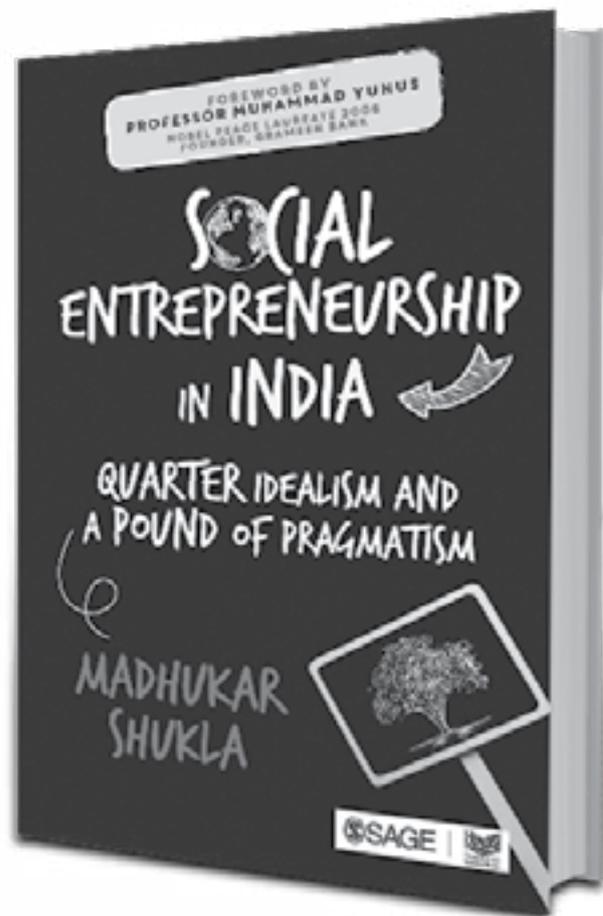
About the Author

Dr Madhur Shukla is Chairperson, Fr. Arrupe Centre for Ecology and Sustainability and Professor (Strategic Management and OB) at XLRI, Jamshedpur, India. He has keen interest in theory and practice of social entrepreneurship. He also serves on the Board of School of Management and Labor Studies TISS and is a member of the board of Governors of XLRI Jamshedpur. He was the conference coordinator of National Conference on Social Entrepreneurship during 2009-2017. He has served as a jury of the oikos Case Competition on Social Entrepreneurship and as an assessor for the Echoing Green Fellowship Competition -A global competition to identify social entrepreneurs. Dr. Madhur Shukla holds a Master's Degree in Psychology from Lucknow University PhD from IIT Kanpur. Prior to joining XLRI in 1990 he has worked with National Productivity Council and Administrative Staff College of India, Hyderabad. He was also a visiting faculty to ESADE, Barcelona during 1993-94

Appreciation and Critique

In the author's own words this book - Social Entrepreneurship in India, Quarter Idealism and A pound of pragmatism, is a personal learning journey which began in 2005 with the Ashoka Innovators team participated in their initiation of the teachings of social entrepreneurship across the academic world in India. Several such experiences and recognition for his contribution in the area of social entrepreneurship led to creating the theme of this book.

Author in his book has narrated the evolution of Social Entrepreneurship in India in three different theme such as-Firstly, dealing with the unique set of people who's inspired pragmatism makes them start a social enterprise. Secondly listing all the varied approaches and types of social enterprise that are operating in India. Lastly, understand the Indian



Social Entrepreneur and his unique ways of success.

Author has adopted a very academic style of writing with a lot of the content for the book drawn from his work in the area and the research conducted to compile 120 social entrepreneurs in India. The important reading point of the book is the narration of each of the 120 social entrepreneurs. These cases bring out all the three themes that is connected by the author.

Author has found critical acclaim from prominent academician and practioners of the social entrepreneurs.

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